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**Measuring Service Quality  
in the Low-Cost Airline Industry**

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## STATEMENT OF ORIGINALITY

This assignment was prepared by Jonavan Barnes, for submission of the Ph.D. at the University of Stirling. This is entirely my own individual work, all resources have been acknowledged and it has not been submitted previously for any other academic award.

Student signature: ..... Date: .....

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## ABSTRACT

Since the end of World War II, the service sector has expanded to encompass over 80% of the economy of most developed nations. This places an immense importance on the ability to accurately measure service outputs. However, the most precise method of measuring these outputs is still unclear. This thesis examines Service Quality as a measurement of service outputs, and tests this within an industry-specific context: the low-cost sector of the UK airline industry. This is an industry that has been facing serious challenges since market liberalisation began in 1976. This thesis recognises that offering superior quality may allow airlines to gain a competitive advantage; despite this, there is still no preferred method of measuring Service Quality in this specific context. This PhD therefore examines three methods of Service Quality measurement in the context of the low-cost sector of the UK airline industry: a qualitative method (content analysis), a quantitative survey approach (HiQUAL) and an indexing approach (ALSI). The first study provides an in-depth analysis of the determinants of airline quality through a content analysis study. The second study uses a neglected measurement of Service Quality (HiQUAL) to take a quantitative measurement of Service Quality in the low-cost airline industry. The third study uses measurement (ALSI), an indexing approach, to provide an indication of airline quality. The results of this PhD define the determinants of Service Quality in the low-cost airline industry and confirm the hierarchical nature of Service Quality. This PhD also develops a novel objective metric that represents a shift in ontology from subjective to objective measurements of Service Quality.

# CHAPTER ONE: INTRODUCTION

## 1.1 Introduction

In early pre-industrial societies, large portions of the labour force were dominated by agricultural endeavours. Work in these societies was challenging and success was largely dependent on an individual's physical ability. Life was centred around the rise and fall of the sun and the changing of seasons. Large families were a necessity for survival and economic prosperity (Bell, 1976). Industrialisation brought division of labour resulting in semi-skilled workers. In these societies, the clock dictated life and energy replaced raw muscle power. Innovation in industrial societies came from thoughtful tinkerers: experimenters and inventors, whose developments made life more efficient (Bell, 1976).

Industrial expansion happened almost simultaneously in Europe and North America, while in places like South America and Asia, they took place at a much slower rate. Industrialism has become synonymous with the successful development of society. However, a society's industrial expansion will eventually reach its pinnacle. For the western world, this happened in the early 20<sup>th</sup> century during the Second World War.

The short time between 1941 and 1945 saw death and destruction on a global scale. Fighting the war required the production of vast quantities of food, equipment and munitions. Such high levels of production were unprecedented and greatly expanded the capabilities of countries involved. Immediately following the war, production returned from weapons and munitions to domestic products, leaving countries with an excess of production capability (Bell, 1976). This was especially true in the United States where, unlike Europe and Japan, there had been little damage to plant, property and equipment.

In post-war society, the semi-skilled labour required for manufacturing was at an all-time high. This encouraged the population to enter more specialised fields, causing industrial expansion to slow and giving rise to more service based industries. Therefore, in the decades since the Second World War, the economies of developed nations shifted from manufacturing to service dominance (Bell, 1976).

In recent years this shift has become extensive, with services making up around 80% GDP of many North American and European countries (Zeithaml & Bitner, 2003). Reasons for this transformation have been multifaceted: off-shoring to developing nations, increasing domestic costs of labour, increased specialisation of the workforce, improved technologies, and ease of access to higher education have all played a role in establishing service dominance (Zeithaml & Bitner, 2003). Today's society no longer places the semi-skilled labourer as the backbone of civilisation. Rather, the central person in this society is now the doctor, the lawyer, the accountant, the hair stylist, the auto-mechanic or any other professional. These individuals are equipped with a specific education and training that allows them to offer specialised services. In the service dominant society, innovation comes not from the increased physical capabilities of the workforce, but from the development and application of theoretical knowledge (Bell, 1976).

With the economic shift from an industrial to service society comes a unique problem: how to measure output quality. During the agricultural and industrial phases, a society can accurately measure its outputs by measuring them against an expected outcome or ideal model (for example, the farmer can compare crop yields longitudinally from year to year and the manufacturer can compare production outputs against specified design standards). This allows for easy forecasting and is attractive to investors. Once a society has transitioned to service dominance, the accurate measurement of output quality becomes more complex (Berry, Zeithaml, & Parasuraman, 1985).

Many service firms have attempted to define their outputs in terms similar to the manufacturing industry (for example, by measuring the time it takes to serve each customer or the number of customers served); however, this is not always ideal (Crosby, 1979; Johnson, Tsiros, & Lancioni, 1995). Although such measurements are attractive to many services due to their cost effective nature, easy comprehension, comparability and objectiveness, firms that adopt this type of strategy can easily overlook the value of the customer's experience. Adopting a strict production focus can cause a firm's operating strategy to become disconnected from the consumer's needs and will undoubtedly have a negative financial impact on the firm (Christian Grönroos & Ojasalo, 2004). In addition to this, a lack of output measurability can make attracting investment more difficult for service firms (Alfaro, 2003). With such a high portion of developed nation's GDP being derived from the service sector, the accurate determination of output quality in the service sector becomes paramount.

## **1.2 What is Service Quality?**

By their very nature, services have unique properties that can complicate marketing (Zeithaml & Bitner, 2003). Contrary to buying a manufactured good, the consumer cannot sample a service before purchasing. This increases risk to the consumer, leaving the service provider predominantly motivated to reduce this risk (Shostack, 1977). Managing output quality can be an effective strategy for service providers in alleviating the consumer's pre-purchase anxiety (Gronroos, 1984). However, unlike manufacturing systems, service outputs can be complicated to measure. A manufacturer can define quality by establishing various physical constraints of an end product. However, this is not possible for the service provider. The determinants of quality are therefore often left to the consumer. This has led to considerable debate concerning the best method of capturing the consumer's perception of service outputs

(for example, Service Quality). Unfortunately, as Christian Grönroos (1982) noted; service firms seem to be the last to adopt a customer centred focus.

Popular Service Quality literature began in the early 1980s and has been largely dominated by two schools of thought: the “Nordic” school (Gronroos, 1984) and the American School (Parasuraman, zeithaml, & Berry, 1985; Parasuraman, Zeithaml, & Berry, 1994; Zeithaml, Berry, & Parasuraman, 1988). This early work was grounded in the disinformation paradigm associated with the manufacturing literature, which Grönroos (1982, 1984) adapted to fit the service sector. The premise of the paradigm centres on a disconformity between the perception of Service Quality evaluated by the consumer, and the level of Service Quality the consumer expects. This dichotomy between perception and expectation led to the development of the Gap Model by Parasurman, Zeithaml and Berry (1985) that later led to the development of the more popular SERVQUAL scale.

Despite early and continuing criticisms, the SERVQUAL scale (or some modification thereof) remains the dominant metric in application. It is in widespread use in both managerial decision making and academia. Early criticisms (Babakus & Boller 1992; Carman 1990; Cronin & Taylor 1992) have led to alternate measures being developed; however, no alternative has had such widespread implementation within industries as SERVQUAL. The genesis of modern Service Quality theory, its major developments and the various scales (with their advantages and disadvantages) will be discussed in-depth in subsequent chapters in this thesis.

### **1.3 Service Quality in Context**

The context of this research in Service Quality is the airline industry. Within the past few decades there have been significant changes to this industry on a global scale. Liberal “open-skies” agreements, legislation, rising fuel costs and increased competition have all contributed to the deterioration of profit margins for many of the

world's airlines. Despite these pressures, demand for air travel is forecasted to continue its upward trend (Doganis, 2006; IATA, 2012). This increase in demand, coupled with ever shrinking margins represents a serious challenge for the airlines (Belobaba, Odoni, & Barnhart, 2015). This has caused many long-standing players in the industry (particularly within Europe) to rethink their competitive and operational strategies in order to meet the market demands and maintain profitability.

While many traditional carriers are struggling with the challenges of the modern air travel market, the low-cost carriers (hereafter LCCs), which implement novel business strategies, have found success. These airlines provide a unique context when studying Service Quality. As their name implies, these airlines operate under a different business strategy than traditional airlines, primarily by having a universal focus on reducing ticket prices. Low ticket prices are maintained through the reduction of fixed costs, resulting in LCCs being among the most profitable of airlines in the world.

High fixed costs are a characteristic of the airline industry as a whole (Belobaba, Odoni and Barnhardt, 2010) and effective management of these costs is critical to industry survival (Doganis, 2006). However, the strategy of cost reduction is a zero-sum game. A point exists at which the Law of Diminishing Return makes further cost reducing measures, or reductions in service, unprofitable. Since many of the fixed costs are common among airlines operating in a given market (for example, fuel, landing fees, taxes, governmental fees and even aircraft type), it is certainly feasible for several airlines in a given market to have similar break-even points. This could make the minimum ticket price very similar. Furthermore, excessive cost-cutting can negatively affect Service Quality in some instances, causing consumers to seek better value services elsewhere (Christian Grönroos & Ojasalo, 2004). Collectively, these factors make it very difficult to compete on price alone. Therefore, in the very near future, airlines (especially LCCs) will need to develop different competitive strategies and offering superior service could be one of these.



The LCC offers a unique experience than that of the traditional airline. Most notably is the unbundling of inclusive service. The purchase of a LCC ticket provides the passenger with no additional services other than the right to board a specific aircraft, at a specified time. Additional amenities (such as extra baggage, in-flight food/entertainment) are still available to the passenger, however these must be purchased in addition to the base fare. This allows the consumer to tailor the airline experience to their needs and budget. However, in-flight retailing has created a unique situation where the airline is not only functioning as a service provider, but as a retailer. This raises a debate over the effect of Service Quality on consumer's purchases intentions. Superior Service Quality may result in an increased competitive advantage. Therefore, the mechanisms by which consumers measure and evaluate service in the low-cost airline industry become extremely important.

## **1.4 Justification**

This thesis is justified by both a continued debate within the Service Quality literature and the challenges faced by the low-cost airline industry. This sections seeks to illustrate why the research is important in both theory and context.

### **1.4.1 Importance to the Service Quality Literature**

The best possible instrument with which to measure Service Quality has been the subject of debate since the late 1980s (Babakus & Boller, 1992; Cronin & Taylor, 1992, 1994). This study does not seek to resolve this debate; rather, this study takes the position that there is no singularly best instrument for which to measure Service Quality and among the popular metrics, no universality exists across industries. Therefore, this research argues there may be an advantage to creating industry specific measurements (Carrillat, Jaramillo, & Mulki, 2007; Jain & Gupta, 2004).

There is a need to revisit an appealing, yet long neglected, Service Quality model developed by Brady and Cronin (Brady & Cronin 2001). Their Hierarchical Effects Model (hereafter HiQUAL) has high predictive strength along with attractive face validity. This model needs further attention in current Service Quality research, if only to add to the diversity of Service Quality measurements in the literature. Brady and Cronin (Brady & Cronin, 2001) outline the need for modification of the model to fit various industries, however did not take measures to assess the concept. This study offers support for adapting and applying HiQUAL to the airline industry.

Following the modification and reintroduction of HiQUAL, this study to investigates the possibility Service Quality can be defined in more objective and quantifiable terms. This involves the development of an indexing approach to measuring Service Quality in the LCC industry. This could push the theory from a purely subjective standpoint into a more objective ontology. Currently, there is no mention within the Service Quality literature necessitating an ontological shift; however, this research investigates this need and the benefits of objective measurement. Such a shift will help Service Quality to better parallel the Customer Satisfaction literature (Anderson & Fornell, 2000; Fornell, 1992; Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Johnson, Gustafsson, Andreassen, Lervik, & Cha, 2001). These two theories are both closely related, yet remain independent drivers of consumer behaviour (Dabholkar, Shepherd, & Thorpe, 2000); therefore, it necessitates that they both have individual, objective systems of measurement. If both attributes could be measured in objective terms, the two items more would be comparable and would greatly increase the understanding of consumer's behavioural intentions.

#### **1.4.2 Importance to the Airline Industry**

The competitive strategy of the major LCCs seems a contradiction to the time-honoured sales mantra: "Give the people what they want" (Delfmann, 2005). They

offer limited service, yet attempt to generate revenues from the sale of additional services and on-board goods. The industry recognises the importance of in-flight retailing to their profit margins (Pate & Beaumont, 2006), with major industry conferences (such as the Airline Retail Conference in London) dedicated to the sole subject of in-flight retailing and ancillary revenue generation. The industry must increase its understanding of the impact of Service Quality on in-flight sales before service diminishes further.

Unfortunately, very little academic research has been directed toward Service Quality in the airline industry. While studying Korean and Australian air travellers, Park, Robertson and Wu (Park, Robertson, & Wu, 2004) identified Service Quality as a contributing factor to consumer repurchase behaviour; however, it is safe to assume that the impact of Service Quality is further reaching. As well, Bowen, Headley and Luedtke (Bowen & Headley, 2007; Bowen, Headley, & Luedtke, 1991) created the best known measurement of airline quality, the Airline Quality Rating (AQR). While this was a giant step in the right direction for measuring airline quality, its applicability to markets outside the United States is questionable. Further investigation is necessary to bring the AQR up-to-date with modern Service Quality theory and to determine if such a measurement is possible outside of the United States and within the strict context low-cost airlines.

The development of a more objective scale for measuring Service Quality in the airline industry would again be beneficial to consumers and industry professionals alike. Consumers will benefit from an easily accessible, unbiased and comparable tool to aide in making pre-purchase decisions. Industry professionals will also benefit from an unbiased evaluation of service performance that is not only strictly objective, but comparable, easy to calculate and interpret. This could help identify strengths and weakness in competitive strategy as well as provide a tool to attract investment.

## **1.5 Structure**

### **1.5.1 Chapter Two: The Airline Industry**

Chapter Two provides the contextual framework for this research. It gives justification for a focus on the airline industry within the UK. A background of aviation history is followed by a description of industry characteristics. This leads into a discussion of current challenges facing the industry. The chapter concludes with justification for the focus on Service Quality in the airline industry and confirm its relevance to the Service Quality literature.

### **1.5.2 Chapter Three: Service Quality in the Airline Industry**

This chapter continues the contextual discussion from Chapter Two by focusing on the value of Service Quality in the airline industry. It begins by examining the air travel experience as a whole, from the consumer's perspective. An important link is made between the hierarchical nature of Service Quality in the airport industry and the need to demonstrate the same in the airline industry. The chapter then moves into a discussion concerning the possible effects of Service Quality to an airline's profitability. The chapter concludes with specific research questions that will be examined in detail in Chapter Five: Methodology.

### **1.5.3 Chapter Four: Measuring Service Quality**

Chapter Four provides the theoretical framework for the research in this PhD, through a critical review of the Service Quality literature. This chapter specifically highlights relevant gaps within Service Quality. The individualities of the service sector will be discussed, followed by a review of current schools of thought in Service Quality. This leads into a review of the various popular Service Quality metrics employed in

academia and the industry: advantages and disadvantages of each are discussed. A clear argument for more objective, industry-specific measurements of Service Quality concludes the chapter.

#### **1.5.4 Chapter Five: Methodology**

Chapter Five details the methodologies applied within this research. It begins by describing key elements of the research philosophy, and goes on to discuss the mixed-methods approach used within this PhD, detailing both the qualitative and quantitative methods used. The chapter provides a critical analysis of these methods alongside in-depth descriptions of each study. It then moves into a clear justification for the data collection, population sampling, and statistical analysis methods that were used. The chapter further defines the contextual focus of the research by detailing the airlines to be included or excluded from this study. This produces only two airlines that are operating in UK markets and qualify as true LCCs: Ryanair and EasyJet.

#### **1.5.5 Chapter Seven: Finding the Determinants of Airline Quality**

This chapter seeks to identify the determinants of Service Quality in the low-cost airline industry. It discusses the methods used by external industry watchers to evaluate Service Quality in the airline industry. The sources covered in this chapter are Which?, TripAdvisor and Skytrax. Each source has a unique method of determining the quality of service, and advantages and disadvantages of each are discussed. This chapter also sees the undertaking of a short content analysis of consumers' comments on Skytrax relating to Ryanair and EasyJet. A discussion of their results provides a qualitative measurement of consumer's opinions of the LCC experience and simultaneously highlights any discrepancy or media bias toward the LCC.

#### **1.5.6 Chapter Six: HiQUAL**

This chapter draws heavily on the work of Brady and Cronin (2001) and revives their hierarchical model of Service Quality. While the foundations of this theory are discussed in Chapter Two, this chapter focuses on the application of the HiQUAL scale. It presents a slight modification of the original hypothetical framework to fit the airline industry and provides justifications for each modification. The resultant airline-specific model is tested and the results are evaluated.

### **1.5.7 Chapter Eight: ALSI**

This chapter draws heavily on the work of Bowen, Headley and Luedtke (1991, 2007) in the United States and applies their Airline Quality Rating concept to the European Market (as recommended by Headley and Bowen, 1997). Furthermore, it advances their example by linking the AQR to more modern Service Quality theories. This produces a measurement (ALSI) of Service Quality for UK based LCCs, Ryanair and EasyJet. It concluded with the results of the study and discusses in detail its advantages and limitations.

### **1.5.8 Chapter Nine: Discussion and Conclusion**

A comprehensive evaluation of the research undertaken in the thesis is discussed in Chapter Nine. It begins by assessing the findings of the literature review, and goes on to review each research chapter in sequence. The conclusion of this chapter contains a resolution of the research aims and questions, and illustrates the contribution to literature. Limitations of this research along with implications for future research are discussed.

## CHAPTER TWO: THE AIRLINE INDUSTRY

This is the first of two contextual chapters of this study. It provides an in depth look at the airline industry as a whole, beginning with an overview of major developments in global airline history. The chapter then moves into a discussion of the various business models that exist within the scheduled airline industry, providing the necessary background for Chapter Three: Service Quality in the Airline Industry.

### 2.1 Introduction

The civilian aviation industry is immense. It is largely divided between two macro-sectors: General Aviation<sup>1</sup> and Scheduled Operations (airlines operating along scheduled routes). The focus of this thesis is the scheduled air carrier industry<sup>2</sup>.

While the global airline industry is a diverse marketplace encompassing many market segments, the scheduled air carrier industry can be categorised into two general categories: full-service carriers (FSCs; these are also known as national carriers, flagship carriers or traditional carriers), and low-cost carriers (LCCs; in some markets these are known as low-cost airlines; in this thesis these terms are used interchangeably). The FSCs have been in operation for some time (typically they are considered traditional carriers if they have been operating before the deregulation act in late 1970s) while the LCCs are relative newcomers to the market. They differ in their levels of inclusive service, market strategies and operational characteristics. Both Full-

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<sup>1</sup> This the largest sector of the aviation industry in terms of number of aircraft and refers to a wide variety of operations including any unscheduled aviation operation from personal aircraft to air ambulance services or unscheduled passenger carriers such as charter airlines.

<sup>2</sup> Within the context of this research “airline” refers to any scheduled air carrier operating in accordance FAA Regulations (Title 14 CFR - Part 121, 125, or 129) and CAA Official Record Series 1 (Part3) or any other similar certifying agency recognised by the ICAO.

Service Carriers and low-cost carriers airlines compete alongside each other for market share based on several factors (Belobaba et al., 2015): i) frequency of flights along scheduled routes; ii) price relative to other airlines (in liberalised markets); iii) quality of service and products offered (this includes airport and in-flight service amenities).

It is difficult for any FSC or LCC (particularly FSCs) to gain a market advantage in any of these areas, largely because the companies within the airline industry can take decades to change business and operating strategies. The market demand for the airline industry is closely tied to the economic, governmental and competitive forces within the region of operation (Doganis, 2006): new technological developments, increased competition, and operational and regulatory constraints set forth by governments has changed the modern marketplace significantly from its position even 5 years ago. This has resulted in a constant pressure on the airline industry to adapt to novel pressures.

In addition to managing viability within a fast-changing marketplace, many of the world's airlines have operated with extremely tight margins since the 1990s (largely associated with rising fuel cost, increased competition and increased legislation), which has led to demanding profitability issues (Doganis, 2006). The decline in airline profitability margins was intensified following the liberalisation of the airline industry. Prior to airline deregulation, governments viewed the airline industry as a domestic utility (Doganis, 2006; Morrison & Winston, 1986; Westra, 2009; Williams, 1994); this led to introduced controls such as defined routes, fixed pricing and subsidised operating budgets. During this time, governments actively prevented competition between carriers. This allowed carriers to operate free from competition. This was the golden-age of airline travel when ticket prices were at a premium and service was at its most luxurious. However, in 1978, the United States (US) Government became the first to liberalise the airline industry as Congress passed The Airline Deregulation Act. This began a trend that would eventually lead to market liberalisation across North America and Europe. Not only did this remove access to operational subsidies from the



taxpayer, but deregulation forced operators into a competitive “open-skies” market. With deregulation came increased competition, legislation, and shrinking margins (Belobaba et al., 2015). In response, the industry has become a dynamic theatre of cost reductions, mergers, code-sharing agreements, innovations in technology and both operational and management strategy changes (Doganis, 2006).

The economic importance of the airline industry makes examining such issues as profitability, competitive advantage, and sustainability of great significance to researchers (MIT: Global Airline Industry, 2011). However, examining the airline industry as a whole may overcomplicate some research because each division (traditional carrier, regional airline, low-cost carriers, charter airline, or air taxis) has its own unique properties. An understanding of the genesis of the modern airline industry and its various divisions may help to illustrate some of the difficulties faced within the airline industry, both as a whole and within the Service Quality sector.

## **2.2 Airline History**

The airline industry has gone through significant adaptation to changing market conditions since its beginning in the early 20th century. An understanding of airline history may help to illustrate the industries present-day challenges. In general, this is an industry that has been able to adapt to overcome significant challenges, resulting in a service that was once available only to a privileged few becoming a widely accessible form of transportation.

### **2.2.1 Before 1942**

The earliest days of passenger carriage grew out of the airmail routes (Brady, 2000a). The Airmail Act of 1925 (commonly known as the Kelly Act) gave the US Postmaster General the authority to contract routes for the mail service to specific operators. Airmail Route No.1 took place between Washington D.C. and New York. Soon airmail

would expand into a transcontinental service. The US Post Office itself would operate a transcontinental route from New York to San Francisco (called the Colombia Route) and private contractors would feed into this main “trunk” route. Retired WWI pilots in surplus aircraft mostly flew the early airmail routes. They had open cockpits, wood and fabric construction, and no aids to navigation. Passengers (if they were taken at all) were then seen largely as a burden as they took up valuable space for airmail (Brady, 2000a).

The famous transatlantic flight of Charles Lindbergh in May of 1927 created an amazing amount of attention towards aviation. Aircraft manufacturers began producing more passenger specific aircraft and some passengers began looking at air travel as an alternative to train travel. That year, passenger traffic grew 500% (Brady, 2000 p.149). Everyone desired to become “air-minded” and the future of the airline industry in America was set to become a reality.

The greatest champion of the Pre-WWII airline industry was Juan Tripp, a Yale graduate and enthusiastic businessman. He decided to leave a career at his father's investment bank and begin his own airline company. Having formed the Aviation Corporation of America, Tripp learned that the US Post Office was offering bids on one of the first international airmail routes from Key West to Cuba. Tripp had subverted the competition by negotiating exclusive landing rights with the Cuban president for his airline and thus secured the route on the 19<sup>th</sup> of October, 1927 (Brady, 2000a). The Aviation Corporation of America became the holding company for Pan American Airways (more commonly known as Pan Am). Pan Am later developed a monopoly (protected by US Government legislation) of the international traffic originating from the continental United States. This allowed Juan Tripp to make Pan Am one of the most successful airlines in aviation history. Unfortunately, Pan Am could not survive in the competitive deregulated marketplace after 1978 and was forced into bankruptcy in 1991 (Lehrer, 2000).

Early passengers were typically seen as more adventurous in nature (Brady, 2000a; Omelia & Waldock, 2003). The first passenger planes were constructed of wood and fabric or very thin metal and offered almost no protection from extreme temperatures. These aeroplanes flew at a relatively low altitude by today's standard (often less than 10,000 feet) and had only simple aids for navigation. This made for an experience that could be noisy, turbulent and at times very risky. Forced landings were a common occurrence and early passengers would often have to resume their journey by train (Omelia & Waldock, 2003). This would all change following one of the most rapid periods of technical innovation in the history of aviation, the Second World War.

### **2.2.2 Post-War**

The modern airline industry within the United States and Western Europe grew out of the Second World War (Brady, 2000b). The war had left a large supply of available transport aircraft that could be easily converted to suit civilian transportation (such as the DC-3 and its military counterpart the CH-47). Likewise, the war had led to the advancement of aerial navigation technology (RADAR, Aerial Direction Finding, and the Instrument Landing System). This drastically increased the safety and reliability of passenger transportation (Brady, 2000b). Operators soon began to capitalise on these post-war assets by flying a few privileged passengers on point-to-point routes (Lehrer, 2000). This was the golden era of commercial aviation; flying was a luxury, a status symbol and something to look forward to, despite being more dangerous than modern air transportation and relatively uncomfortable (post-war transport aircraft were still not insulated, very noisy and often subjected to turbulence). The early days of commercial aviation were undoubtedly viewed with a sense of romance and adventure (Omelia & Waldock, 2003).

As popularity grew, operators began to expand their markets. New civilian airports led to new routes. Airport planning and air-traffic technology increased route frequency. With this increase in air-travel, competition among the major players

became fierce. Public policy makers saw the airlines as a public utility, vital to the growth and prosperity of the nation (Hanlon, 2007). Competition was seen to be counterproductive to the stability of the industry. Legislation (like the Kelly Act) allowed the government to control the airline market by establishing a few carriers as market leaders, establishing the “flagship,” “traditional” or “legacy” carriers. These usually carried with them a strong sense of national identity as they were often named according to their country of origin (for example, British Airways, American Airlines, Air France) (Doganis, 2006).

For many years these airlines operated within highly regulated markets almost free from competition within the industry. In the US the governing body was the Civil Aviation Board and later the Federal Aviation Administration (FAA). In the UK it was the Civil Aviation Authority (CAA). Universally, the life cycle of the airline industry within a country began with this regulated stage (Francis, Humphreys, Ison, & Aicken, 2006).

In the years' operating under governmental regulation, air carriers were assigned specific markets (or routes) in which to operate. Competition within these respective markets was non-existent or highly regulated. Pricing and ticket distribution was also tightly structured; although pricing was set internally by the airline, strict regulations (such as the Kelly Act) prevented competition where markets overlapped. Ticketing usually took place through third-party travel agents, offering sustainability to this industry.

Shortly after World War II, technological barriers were overcome and political tensions diminished, allowing international air travel became a reality. As the early airlines began to expand their routes, political concern grew from the lack of intrastate regulation of air commerce. Nations therefore began establishing Bilateral Air Service Agreements (ASAs) also known as Air Transport Agreements (ATAs) (Hanlon, 2007). These were essentially civil treaties, as these were trade agreements negotiated between

two or more states instead of airlines (Doganis, 2006). Therefore, governments had legislative control over all domestic routes as well as agreements (with friendly nations) over international routes. This allowed for strict control over market access, designation, capacity, and tariffs. There were originally two types of bi-lateral agreements: the Predetermination type and the more liberal Bermuda type (aptly named, as the relationship between Caribbean airlines tended to be less restrictive but only in relation to the predetermination type) (Doganis, 2001, 2009). These bilateral agreements were a necessity after the failed 1944 Chicago Convention's attempt at an open-skies market.

### **2.2.3 Bilateral Agreements**

Air Service Agreements (ASAs) encompass every aspect of air operations between the nations involved. They cover traffic rights, designations (the number and type of airlines allowed to operate within the agreed space and time), gateways (airports), frequency (permitted landing/departure time slots), and capacity (Shaw & Ivy, 1994). Such agreements often prohibit carrying passengers within a foreign country (Westra, 2009, p. 162).

The early system of regulated markets was highly complex and costly. Member States desperately attempted to protect their national airlines (many of which were often state owned) against the threat of new entrants. Bureaucratic regulation was often very cumbersome. However, this system would remain in place until the early 1980s when market liberalisation would lead to a reduction in ticket price, increased passenger numbers and the removal of restrictions that would allow low-cost carriers to expand into out-of-state markets (Fageda, Suau-Sanchez, & Mason, 2015).

The International Convention on Civil Aviation (later known as the Chicago Convention) convened in 1944 to establish a set of statutory rights regarding air travel between Member States. The Convention signed the Document on December, 7th 1944 and established the International Civil Aviation Organisation (ICAO). The ICAO

originally included 52 signatures (today 191 states have joined the ICAO and adhere to the Chicago Convention). The Convention's regulations guarantee five Freedoms of the Air and four "so-called" Freedoms of the Air (only the first five have been officially recognised by international treaty the others must be mutually agreed upon by individual Member States). Currently these nine freedoms are as follows (ICAO: International Civil Aviation, 2013):

#### *First Freedom*

- The right to fly over a Member State without landing.

#### *Second Freedom*

- The right for a scheduled operator to land in another Member State's territory for non-revenue purposes. This allows an airline originating from one Member State to make a "technical stop" (for example, maintenance or refuelling) within the legal boundaries of another Member State without boarding or deplaning passengers.

#### *Third Freedom*

- The right for a scheduled operator to carry paying passengers (revenue traffic) originating within your country of origin to another member State's country (for example, an American airline can carry passengers to a UK airport and deplane them).

#### *Fourth Freedom*

- The right for a scheduled operation to board revenue traffic in a Member State and carry them back to their own country (for example, an American airline can board passengers at a UK airport and return with them to America).

#### *Fifth Freedom*

- The right to carry passengers from a member's country of origin to second country and from that country to a third or fourth (and so on). In order to

exercise this right, the third and fourth countries must also be in agreement (for example, British airline carriers. At each stop the airline is allowed to deplane and board revenue traffic.

#### *Sixth Freedom*

- This is the first of the “so-called” rights guaranteed by the ICAO. The Sixth Freedom is essentially a combination of the Third and Fourth Freedoms and guarantees the right to carry revenue traffic between two Member States by stopping in one’s own country.

#### *Seventh Freedom*

- The “so-called” right for an airline to carry revenue traffic between two countries along routes that lies completely outside its own country. This right is hardly exercised outside of the EU Open-Skies Agreement. In 1990, as part of the US-UK bilateral agreement, Seventh Freedom rights were granted to the United Kingdom by the United States, however; since that time these rights have not been used (Doganis, 2006). Typically, LCCs operating in Europe exercise this right to a large extent (for example, Ryanair is an Irish airline yet operates scheduled routes between London and Rome).

#### *Eighth Freedom*

- The “so-called” right for an airline to carry revenue traffic between two points within a foreign country on a service originating from its home country (for example, a Canadian airline flies a route between Ottawa, New York and Chicago whereby they board and deplane passengers at each stop). This “so-called” right is commonly referred to as Consecutive Cabotage. Outside of the EU Consecutive Cabotage is extremely rare. Currently New Zealand has agreements with the United Kingdom and Ireland, but these appear to be merely symbolic given the distance between these countries.

The most famous example of Consecutive Cabotage would be the granting of Consecutive Cabotage to Pan Am to operate a route between Frankfurt and West Berlin from the 1950s until the 1980s.

#### *Ninth Freedom*

- The “so-called” Ninth Freedom refers to the practise of Stand-Alone Cabotage. This is the right granted to an airline allowing them to carry revenue traffic between two points within a foreign country (for example, a route between Edinburgh and London operated by Air France). Stand-Alone Cabotage is also extremely rare outside of the EU open-skies market.

### **2.2.4 Post-Deregulation**

In 1978 the US Government (under the Carter administration) instituted the Airline Deregulation Act (the administration’s mission of removing government control of civilian markets and returning it to the consumers drove deregulation). The premise of the Airline Deregulation Act was to remove as much regulation from domestic air travel as possible in support of consumer interests (Doganis, 2006). Initially, legislation only applied to US domestic air travel. However, success of the concept had made the idea very popular and it soon spread throughout much of the western world.

Deregulation had a mixed effect on the airline industry. Market leaders began to expand services (particularly in respect to scheduling), and increase employee efficiency in order to offset the threat of new entrants. In the open market, the threat of competition became almost as productive as competition itself (Hanlon, 2007). However, deregulation didn’t necessarily begin the price wars that would lead to significantly lower airfares. Traditional carriers live by an industry “golden rule” whereby players refrain from direct price competition within a market where they have a dominant share, for fear of losing the price war to a competitor in a market where they lack dominance (Evans & Kessides, 1994). This rule would be shaken somewhat by the introduction of LCCs within a given market; as LCCs expand, their presence can



pull traditional carriers into direct price competition. This has been popularised as “the Southwest effect” because of Southwest Airline’s general success in competitive markets (Mentzer, 2012). The presence of a LCC within a given market instantly forces all traditional carriers into price competition where, without the LCCs presence, the players simply follow the “golden rule” of non-price competition.

The deregulation concept quickly spread from the US domestic market to international routes, provoking more liberal bilateral agreements (Doganis, 2001). Europe saw a drastic adoption of the deregulation concept (Hanlon, 2007). In Europe the ideal evolved into “open-skies” agreements between Member States as part of the Third Package of Measures, effective January 1<sup>st</sup> 1993 (Doganis, 2006). Again, competition forced a reduction in tariffs, opened new routes, and caused existing airlines to alter their business strategies (Doganis, 2001).

A distinguishing feature of European Liberalisation (not present in the US counterpart) was the removal of national ownership constraints (Doganis, 2006, p. 13). Now an airline could be owned by one Member State and operate from within, or be based inside of, another Member State. Therefore, the Sixth and Seventh Freedom Rights (along with Cabotage) are now guaranteed within the European economic area, although they are still prohibited on many overseas routes (Westra, 2009).

In 2008 a bold move to create a more liberal market between the EU and the US took place. The US-EU Open-Skies Agreement was aimed at increasing competition and reducing air-fares (and effectively increasing passenger yields) along this route. Cento (Cento, 2009) identifies three positive effects this will have of future global air travel:

1. All operators originating from the EU are classified identically as “community air carriers.”
2. Flights are now possible from any airport within the EU to any airport within the United States.

3. European Airlines will be allowed to use any US airport as a stopover point to flights beyond the United States.

Previous to this agreement not all EU Member States had bilateral agreements established with the United States. This new agreement effectively levels the playing field among European airlines in the transatlantic market. In addition to Cento's (Cento, 2009) analysis it is reasonable to expect this to have a profound effect on the low-cost carriers' entrance into this market. The Open-Skies Agreement between the US and EU is the first step for many LCCs (such as Ryanair) that have their eyes on this market (Millward, 2008).

### **2.2.5 Global Alliances**

To survive in the highly competitive post-deregulation environment, many airlines began to enter into code-sharing agreements (whereby one company can sell seats on-board another airline), partnerships, and even mergers (such as the Delta/Northwest merger that effectively made Delta the world's largest airline in size and passenger volume). Organisations such as The Star Alliance (the largest of the Global Alliances, with Delta, Air France and KLM as the major companies), SkyTeam and The Oneworld Alliance have dominated the skies over Europe and North America. The advantage behind such alliances is simply strength in numbers. Members of an alliance are capable of bringing passengers into their individual markets from markets served by other members (thereby automatically granting Seventh, Eighth and Ninth Freedoms to each other). Oneworld Alliance members British Airways and United benefit directly from mutual code-sharing. For example, when travelling from Edinburgh, Scotland to Charlotte, North Carolina on United, the first part of the journey (Edinburgh to London) is served by British Airways. In this example, United has gained access to the Edinburgh market without the expense of manually creating a new route.

### 2.2.6 The New Generation

Deregulation was one of the most significant influences on the airline industry until the beginning of the 21<sup>st</sup> Century (Belobaba et al., 2015; Cento, 2009; Doganis, 2006; Hanlon, 2007). The 1990s were a high point for the global airline industry (Cento, 2009). Increased passenger traffic, coupled with historically low fuel prices led to record seats sold, increased profits, outstanding growth forecasts (predicted between 5-7%) and rapid route expansion for many of the world's leading airlines (Doganis, 2006, p. 8). However, this would all change following the last quarter of the year 2000. The turn of the new Millennium brought a maelstrom of challenges that would require massive strategic change within the industry (Cento, 2009). Five unique factors created a “perfect storm” that would challenge traditional carriers on a global scale (Cento, 2009, p. 5; Doganis, 2006; Markus Franke & John, 2011):

1. The airline crisis occurred at a particularly vulnerable time for the industry. It began at a positive peak in the year 2000, just prior to the strong economic recession which followed later in the year. This economic downturn was largely due to a slowing down of growth in the technology sector. At this time, airlines saw a drastic reduction in the business-class travel. At the time, business-class was extremely important to traditional carrier’s revenue management as these seats carried extremely high yields (Doganis, 2006).
2. An industry already in decline saw crisis turn into disaster with the terrorist attack of September 11, 2001. This grounded all US domestic and international air travel for three days and significantly impacted passenger numbers on a global scale (Doganis, 2006, p. 10).
3. Before the industry could recover from September 11<sup>th</sup>, the Iraq war and the SARS epidemic (2003) created a second wave of passenger number shrinkages.

4. In stark contrast to the advances in network and yield management made during the 1990s, full-service carriers were not innovating. This further exacerbated any losses and made recovery very improbable.
5. Spurred by government pressure to boost the LCC industry in Europe, the Third Package of EU deregulation had come into effect in 1997. This would allow LCCs to expand their market presence and offer price-sensitive consumers an attractive alternative to traditional airlines.

The effect on the industry was immediate and long-lasting. The wake of the perfect storm left most of the world's airlines at risk. This crisis was the first in the history of the industry to reduce yield forecasts (Markus Franke & John, 2011), and most national carriers needed huge injections of operating capital from their respective governments in order to survive. However, many LCCs (such as Southwest) fared more positively. During the industry crisis, Southwest returned record profits (Doganis, 2006). This was mainly a result of their operational and marketing strategies, such as price competition, short turnaround times and fuel hedging practises. Other LCCs such as EasyJet and Ryanair greatly expanded their route structure during this time. One of the key factors that slowed (or in many cases halted) recovery for traditional carriers was their outdated operating practises (Markus Franke & John, 2011). This is evidenced by the success of the LCCs during the same time period. However, the industry as a whole was not yet on a stable path to recovery.

Following the “perfect storm” of 2001-2003 a severe economic recession in 2008 (for American and European markets and many other developed countries) further impacted the travel market. This new crisis exacerbated the industry's already cyclic revenue stream (during the summer of 2008 the industry was already in a strong downturn driven by high fuel prices) and led to another reduction in overall capacity and an increase in operating costs for the world's airlines. In addition to this, the housing crisis of 2008-2009 created a “double-dip” (Markus Franke & John, 2011) effect that slowed recovery for the industry as a whole. Despite this, LCCs (with their

more scalable operating strategies) were better equipped than traditional carriers to handle economic hardship and reductions in passenger numbers (Doganis, 2006; Markus Franke & John, 2011). In recent years, many national carriers have begun developing operating strategies that employ many principles of the low-cost model<sup>3</sup>.

## 2.3 The Traditional Business Model

Traditional carriers such as American Airlines, United Airlines, or British Airways have dominated the skies since the earliest days of aviation. For many years (until 1978) carriers operated under the protection of their governments, protected from many market forces that challenge them today. However, they now face the many challenges of an unregulated market and are constantly challenged with maintaining profitability (Cento, 2009, p. 5; Doganis, 2006; Franke, 2004a; Markus Franke & John, 2011).

The traditional carrier business model is not as homogeneous as in the past, although there are still some general practises and strategies associated with traditional carriers (Doganis, 2001). The most prominent of these practices is the hub-and-spoke system, where the airline route structure resembles that of a wheel with a central hub and spokes radiating outward to various destinations. Operators maintain a central base of operations, denoted as “the hub” (Belobaba et al., 2015). This is usually a very large airport surrounded by an extremely busy airspace, for example: Delta’s hub of operations in Atlanta, GA has the busiest airspace in the world with over 2,500 flights per day (KnowAtlanta, 2016). All flights will originate from this central location and other smaller hubs and will radiate outward to connect to other hubs or terminal airports (in the case of international flights). This design allows airlines to maintain markets that cover massive geographical areas. However, the hub-and-spoke

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<sup>3</sup> A look at the traditional carrier business model (section 3.3) past and present, as well as an in-depth analysis of the LCC business model (section 3.4), will further illustrate the future of airline operating strategies.

system often requires passengers to make one or more connections before reaching their final destination. This requires highly complex operational systems to manage passenger and baggage transfers. While these systems operate with a high degree of reliability, malfunctions can be a major inconvenience to passengers (SITA, 2015). Furthermore, operating a hub-and-spoke system can be costly (Ito & Lee, 2003). For example, it costs much more to fly a passenger from Chicago to Atlanta, then on to Orlando, than it would to fly them in a direct flight. This creates a much higher fixed cost for carriers operating on a hub and spoke system than those flying point to point (Mentzer, 2012).

Traditional carriers also engage in overbooking practises (selling more tickets than there are available seats in the aircraft). This strategy allows carriers to maximise revenue on some routes (Belobaba et al., 2015; Doganis, 2006). By assuming that a given percentage of passengers will not turn up for boarding, therefore potentially leaving empty seats, overbooking the airline assures that all seats will be filled. The risk associated with overbooking is that some passengers may be denied boarding. In the past, this practise rarely interfered with the average passengers travel. While being denied boarding is still rare, overbooking is becoming increasingly more common as many airlines reduce scheduled flights (in response to falling passenger yields and increased fuel and operating costs) in highly competitive markets in order to maintain profits (Bishop, Rupp, & Zheng, 2011).

Typically, all legacy carriers offer some amenities in conjunction with the basic service; however, the type and degree of such service can vary highly from carrier to carrier and with the type of seat purchased (colloquially these are known as First Class, Business Class, or Economy, although exact definitions and number of options can vary among airlines). Such amenities can include in-flight meals, entertainment, checked baggage, or services at the airport (such as private lounges for exclusive passengers). During the early days of the aviation industry, flying was a luxury and operators tried to best perpetuate this image with as many high quality inclusive services as possible.

Freshly prepared food served with luxury silverware, accompanied by fine wines and desserts was the standard. Although this service may seem dated when comparing to current airline practices, this tradition actually continued up until the early 1980s. Since deregulation, competition has forced traditional carriers to modify the quality, type, and number of inclusive services. However, in the last decade, internal and external market pressure has caused some major air carriers to begin charging for previously included services (such as a second checked bag) or remove some services altogether (such as in-flight meals and entertainment on US domestic flights).

### **2.3.1 Regional Airlines**

The profitability challenges faced by the legacy carriers resulting from the deregulation act of 1978 (Cento, 2009, p. 5; Doganis, 2006; Franke, 2004b; Markus Franke & John, 2011) led to many small communities with less demand for air travel at risk of being without service. This lack of service influenced the introduction of regional carriers (Doganis, 2006). These airlines typically operate smaller aircraft and connect passengers from remote destinations to larger hubs where they can transfer to a legacy carrier. Regional airlines can be wholly owned by and operating under the brand of the legacy airline (for example, BA Connect or Delta Connection), or they can be independent carriers operating under their own brand (for example, London City Airways or AirUK). These independent regionals have code sharing agreements with the legacy carriers that allows them to “feed” passengers into larger hubs to be picked up by a legacy carrier.

Regionals come in all shapes and sizes and each fills a specific gap in the legacy carriers’ market. However, they all have one defining feature: their dependence on a legacy carrier. This close relationship means they often adopt similar business practises as a legacy carrier, yet serve a smaller market. The consumer is usually sold a ticket on a regional airline when purchasing a flight on the traditional carrier. Service on-board the regional is usually sparse due to the short flight times.

## 2.4 The Low-Cost Carrier

In the open market of post-deregulation, a new breed of airline emerged: the low-cost carrier. Their business model takes several departures from that of traditional airlines, such as adopting a point-to-point route structure as opposed to the hub-and-spoke system favoured by legacy carriers. These airlines initially flew domestic routes within the EU, or intrastate routes within the US. Slowly, the LCC market share has expanded to encompass more international slots (Belobaba et al., 2015). Today, many LCCs are some of the most profitable airlines in the sky, commanding huge shares of the market (Belobaba et al., 2015).

The grandfather of all the LCCs is Southwest Airlines. The Texas based firm first began operations in 1969. Until the deregulation act of 1978 they were confined to operations within the state of Texas. Their base was Dallas Love Field, a relatively smaller airport outside of the busy Dallas/Fort Worth (DFW) airport traffic but still within the confines of the city of Dallas. Their operations were more efficient than the larger DFW airport as they could reduce flight delays, and they were also less costly to operate due to the lower fees imposed at the smaller airport. They standardised all their equipment, operating only one type of aircraft, the Boeing 737. Instead of operating on a hub-and-spoke system like traditional airlines, Southwest flew point to point routes selling only one-way fares. This model of cost reduction, point-to-point routing, and operating from smaller airports would revolutionise the aviation industry. Today it is simply known as “the Southwest model”

Southwest’s motto was to “make flying fun” (“Nuts About Southwest - Funny Stuff...,” 2012). They did this well. At one time, it was corporate policy that every stewardess closely resembled Farrah Fawcett. Likewise, each customer received a free bottle of Jim Beam Whiskey with each ticket purchase. At that time Flying was unarguably Fun. This philosophy remains within Southwest today, albeit with different terms, but the end result is the same. Cabin crew often sing, dance, or play harmonica.



Even the Captain and First Officer often attempt humour from the flight deck. On one flight the captain announced: "Ladies and Gentleman, I have some good news and I have some bad news. The bad news is...it's raining and 40 degrees [Fahrenheit] in Baltimore right now. The good news is...I just saved a bunch of money on my car insurance by switching to Geico" ("Nuts About Southwest - Funny Stuff...", 2012).

In 1991, the newly appointed CEO of Ryanair, Michael O'Leary, returned to Ireland from a six-month stay at Southwest Airlines. He was tasked with returning profitability to the fledgling Irish airline. At that time Ryanair (named after its founder Tony Ryan) was only operating on two routes (Waterford to London-Gatwick and Dublin to London-Luton), and even those were in dispute by the Irish government. He quickly implemented the Southwest Model at Ryanair (O'Leary, 1994).

The success of introducing the Southwest model at Ryanair cannot be understated. Prior to O'Leary's introduction Ryanair operated all routes at a loss (Ryanair, 2012a). In 1990, Ryanair sent O'Leary to visit Southwest Airlines in Dallas Texas. There he spent six months with Herb Kelleher (the founder of Southwest Airlines). After extensive restructuring (and a capital investiture from the Ryan family of almost £20 million pounds) involving the incorporation of many of Southwest's operational and market strategies, Ryanair was able to reduce its average fare from £99 to £59 within the year (Ryanair, 2012a). This gave a significant advantage over their competitors' BA and Aer Lingus (both traditional carriers) and led to Ryanair carrying twice the number of passengers than in 1989.

In 2010 Ryanair's average fare was only 32 Euro, yet it remains one of the most profitable airlines operating in Europe (Pratley, 2012). Only one other LCC closely competes in UK markets with Ryanair; the London-Luton based carrier EasyJet. Founded in 1995, EasyJet has grown to operate 700 routes in 32 countries, and despite ever increasing fuel prices EasyJet also saw an increase in revenue per seat of 12% during the first half of 2012 (Pratley, 2012). Both Ryanair and EasyJet combined are

each worth more than British Airways and Aer Lingus combined (CAPA, 2012), a true testament to the success of the LCC model. These airlines have become such large players in the aviation market within Britain that they have begun to expand their competitive strategies out with the aviation industry itself. Ryanair's current aim is to not only compete with other air carriers, but with ground transportation as well to make flying more cost effective than taking the train or the bus on long distance journeys (Ryanair, 2012b).

Much of the LCCs growth and profitability was fostered by advancements in technology, legislation, and management practices (Barrett, 2004b). Some of the technological advancements that have furthered the success of the LCC model are super-efficient aircraft, online ticketing, avionics, and communications. Online ticket purchasing was a strong driver of LCC success (Brunger and Perelli, 2009). Before the growth of the internet, legacy carriers had strict control over their channels of distribution, particularly with travel agents. This made market entry very difficult for any newcomers. Additionally, price comparing was a difficult task for the consumer (unless booking through a travel agent). However, while legacy carriers were still relying on traditional channels of distribution (either through physical or online travel agents), LCCs began selling tickets through proprietary websites, exclusively<sup>4</sup> (however, LCCs typically do not directly promote themselves through third-party travel websites such as Expedia.com, Kayak.com, and Travelocity.com<sup>5</sup>). Consumers seem to prefer online ticket purchasing as it offers greater control and "breadth of search"

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<sup>4</sup> The success of this model eventually led to its adoption by legacy carriers (Doganis, 2006)

<sup>5</sup> While Skyscanner.com may passively search for prices for LCCs it does not hold any special promotions for the airlines and is not part of the LCCs direct marketing strategy.

(Brunger and Perelli, 2009). Such distribution has also given the operators greater control of ticket pricing and promotions. This has resulted in substantial cost savings counter to traditional channels of distribution (Brunger and Perelli, 2009).

## 2.5 The Low-Cost Carrier Business Model

Competition is largely price driven and extremely fierce within the LCC market; therefore cost management is essential (Belobaba et al., 2015; Cento, 2009; Doganis, 1999, 2001, 2006). A core strategy of all LCCs is a reduction of inclusive service (Delfmann, 2005). Major players in the industry have become famous for their additional fees (Table 2.1). In this industry, the price of a ticket buys the customer a seat on a flight from point A to point B, and nothing else (Gilbert, Child, & Bennett, 2001).

The LCC industry incorporates a somewhat uniform set of characteristics. While not all LCC airlines operate under the same criteria, there are some consistent features that are commonly understood to belong to LCC. Most of these are associated with increased productivity and efficient operating strategies. These are (Belobaba et al., 2015, pp. 122–123):

- **Fleet Commonality:** This is the practise of operating a single aircraft type or a fleet of equipment from the same family of aircraft. Such practices can drastically reduce maintenance costs by limiting the number of spare parts and crew training. While it is becoming more common for LCCs to operate multiple types of aircraft, this is still considered an industry trait as the modern concept of fleet commonality was born from the Southwest Model (Doganis, 2009).
- **Point-to-point routing:** this abandons the traditional concept of the hub-and-spoke system. Point-to-point routes allow more consistent passenger service (better on-time performance and greatly reduced risk of lost luggage) and greater productivity at the airports. This allows LCCs to achieve extremely short

turnaround times at the gate. Additionally, this route structure allows LCCs to lower operating costs by utilising smaller airports out with major metropolitan areas (Calder, 2002). These airports generally have lower landing fees and less congested traffic resulting in more consistent scheduling and more efficient approach/departure procedures.

- **No labour unions:** Keeping the workforce non-union allows for less restrictive work rules and allows for lower wage rates (on a per hour basis) and greater workforce utilisation.
- **Single cabin service:** The majority of LCCs do not offer premium class passenger service (with the notable exception of EasyJet's Business Class). Multi-class services add to pricing complexity and can be costly in terms of passenger revenue if premium seats go undersold.
- **No Frequent Flyer Loyalty programs:** While this is becoming less common, frequent-flyer programs are not generally associated with LCCs.
- **No assigned seating:** Assigned seating increases complexity of airport boarding procedures and increases turnaround time for aircraft. This is another area where many LCCs are now departing from the norm. Most operators now offer the option to purchase an assigned seat or a priority-boarding pass that allows them to be one of the first people on board and most operators now see selling seat assignments as a source for potential revenue.
- **No “frills”:** This has become the common moniker associated with all LCCs. So much so that “no frills airline” is synonymous with the LCC industry itself. Again, reducing inclusive services is a way for operators to better manage costs and increase revenue.
- **Reduced seating space:** Reducing the available space for each passenger’s seat allows airlines to maximise their cabin space. Increasing the available number of seats increases the total revenue per seat/mile for each flight and in-turn lowers operating costs.

- **Proprietary channels of distribution:** Travel agencies and ticketing agents utilising the Global Distribution System charge a fee to the airlines for such a service. Many LCCs circumvent this charge by limiting their passenger’s ticket purchases from their proprietary websites or over the telephone. Either method involves the passenger buying the ticket directly from the airline and not a third-party agent.
- **No Checked-baggage:** Belobaba, Odoni, and Barnhart illustrate the popular trends in the LCC industry; however, the “no checked-baggage” rule is an important addition to this list (Belobaba et al., 2015, pp. 122–123). Every pound of weight carried in the aircraft increases fuel consumption, reducing revenue per flight. Charging for checked baggage is another innovation that belongs to the LCC industry and has become such a successful source of revenue that all of the major LCCs operating in Europe subscribe to this strategy (Barrett, 2004b; Calder, 2002).

Ryanair is also known for including “optional fees” in addition to its base ticket sales, and actively encourages customers to avoid paying such charges. These fees can include the following: a credit card fee, priority boarding fee, excess baggage fee, online check-in fee and an airport boarding-card reissue fee. They even offer advice on how to best avoid such charges. Table 2.1 provides an illustration of such charges.

Table 2.1

*Low-Cost Carrier Airline Fees*

Airline	Charge	Rate	
		Online	At airport/call centre
Ryanair	Credit Card Fee	2% of total transaction	2% of total transaction
Ryanair	Administration Fee (per person/per flight)	£6	£6

Ryanair	Priority boarding	£5	£6
Ryanair	Reserved Seating	£10	£15
Ryanair	Flight Change	£50	£75
Ryanair	Name Change on Ticket	£110	£160
Ryanair	Boarding Card Re-issue	N/A	£70
Ryanair	Flight Change (Low Season)	£30	£40
Ryanair	Flight Change (High Season)	£40	£60
Ryanair	Flight Uncheck Fee	N/A	£15
Ryanair	Government Tax Refund Administration	N/A	£17
Ryanair	Booking Fee	£0	£20
Ryanair	Infant Fee	£30	£30
Ryanair	Sports/Musical Equipment	£50	£60
Ryanair	Checked baggage	£15-£35	£15-£55
Ryanair	Second Checked Bag	£35-45	£70-385
Ryanair	Oxygen Reservation Fee	N/A	£100
Ryanair	Missed Departure Fee	N/A	£110 (at airport only)
EasyJet	Administration Fee (per person/per flight)	£10	£10
EasyJet	Booking Fee	£10	£10
EasyJet	Group Booking Fee (per person/per flight)	£4.50	£4.50
EasyJet	Priority Boarding (various levels available)	£9.50-£13	N/A
EasyJet	Printed Insurance Letters and Printed Flight Conformations	£10	£10
EasyJet	Flight Change Fee	£35	£45
EasyJet	Name Change Fee	£35	£40
EasyJet	Cancellation Fee	£30	£30

EasyJet	Excess Baggage (per Kilo)	£7	£11
EasyJet	Sports Equipment	£27	£35
EasyJet	Infant Charge	£20	£20
EasyJet	Rescue Fee	N/A	£60

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A lack of inclusion of a service when purchasing the base ticket often does not mean that such services are unavailable to the consumer, only that they require an additional fee (such as in-flight meals, drinks, or entertainment). This allows the airline, as well as the consumer, to better manage expenditures (Delfmann, 2005; Gilbert et al., 2001). However, the LCC industry has become synonymous with poor service delivery (O’Connell & Williams, 2005). Many of the major carriers have a reputation for unreasonable delays, poor maintenance, and apathetic (sometimes even hostile) employees (Murphy, 2001; O’Connell & Williams, 2005). The CEO of Ryanair, Michael O’Leary is famous for his seemingly unsympathetic treatment of customers. In one reverent attempt to console an elderly woman after her flight had been cancelled he exclaimed; “You’re not getting a refund so fuck off” (Killduff, 2010). This may seem harsh to the onlooker, however O’Leary maintains that his airline seeks to be the cheapest in the sky, and nothing else (Killduff, 2010; Murphy, 2001).

While there are some long-haul LCCs operating in Asian markets, there are no LCCs currently operating transatlantic flights between North America and Europe. This is due in part to legislation (Westra, 2009) and the difficulty of maintaining cost-effectiveness on transatlantic routes (Mentzer, 2012). This may change, as current advances in aviation technology have allowed the introduction of the new Boeing 787, Airbus A380 and Airbus A350 (Airbus, 2013): high-capacity, ultra-efficient airliners. The Airbus A350 aircraft in particular features novel, high efficiency Rolls Royce Trent XWB engines. This platform is possibly the best in the industry in terms of efficiency

and comforts (Shukman, 2014) and could make transatlantic LCC operations a reality within the near future.

While the appeal of low-cost travel between North America and Europe makes transatlantic carriage a possible future market for the European LCC (Westra, 2009), many requirements for long-haul or transatlantic flights may not correspond with the LCC business model. On long duration flights, legroom, seat pitch, food and entertainment become of greater concern than flights under three or four hours. Additionally, transatlantic market liberalisation has already led to extremely competitive pricing among traditional carriers (Francis et al., 2006). This has made establishing transatlantic routes very difficult for LCCs. Despite this, Michael O'Leary had planned for Ryanair to offer a low-cost<sup>6</sup> transatlantic flight by 2014 (Westra, 2009); however, this was dependent on the success of the availability of "cheap" super-efficient aircraft such as the Boeing 787 and Airbus A-380. Unfortunately, Ryanair was unable to secure a reasonable aircraft order. The failure of Ryanair, one of the most successful LCCs in Europe, to secure transatlantic routes, highlights the difficulty of applying the LCC model to this market.

The importance of the transatlantic market makes it a strategic focus for the future of many operators. Despite the failure of Canadian transatlantic carrier Zoom (Hume, 2012; News, 2008), support for this concept is already very popular in Asia with airlines such as Jetstar (Australia), Airasia X (Malaysia) and Scoot (Singapore) operating successful long-haul international routes (Hume, 2012)<sup>7</sup>. Many industry professionals such as O'Leary and Norwegian Air Service's (NAS) Bjorn Kjos have their sights set on the transatlantic market. NAS have been operating successfully in small markets originating from Norway for some time; however, they recently began

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<sup>6</sup> Estimates were as low as 15 Euro.

<sup>7</sup> Zoom blamed its failure on the high price of fuel and the economic climate in 2008 (BBC News, 2008) when many regional airlines operating the North American markets filed for Chapter Six (The Associated Press, 2011).



expansion into European and Asian markets. The firm sees itself potentially becoming a competitor for Ryanair and EasyJet in the very near future (Hotten, 2013). However, the firm's primary goal is expansion into budget long-haul markets. Having failed miserably with previous attempts at the long-haul markets during the 1970s and 1980s, NAS feels the Boeing Dreamliner and the A350 XWB will allow this to become a reality (Hotten, 2013)<sup>8</sup>.

## 2.6 Types of Low-Cost Carriers

While LCC is a blanket term and should not imply a standard of business practices within the industry (Calder, 2002), LCCs largely fall under one of five general business models: Southwest Copycats, Subsidiaries, Cost Cutters, Diversified Charter Carriers, or State Subsidised Competing on Price (Francis et al., 2006). The major UK operators (Ryanair and EasyJet) fall under the category of Southwest Copycats.

### 2.6.1 Southwest Copycats

Southwest being the eldest, and arguably one of the most successful LCCs, has earned its paramount reputation within the industry. The term Southwest Copycats simply refers to any airline claiming to reproduce the Southwest model. While many airlines claim to encompass Southwest's practises within their own, there are many variations within this category. Some operators have adopted this model only in part. For example, Ryanair only flies to smaller secondary airports and EasyJet only flies to major airports, however Southwest flies to both (however, during Southwest's Genesis, they too only flew to Class C and Class D airports where there is less landing traffic than at Class B airports). Other LCCs have taken the Southwest model and extended it

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<sup>8</sup> Norwegian Air Service has recently announced it will begin trans-Atlantic carriage in early 2015. They have secured aircraft and landing rights at several US airports and are currently taking bookings.

while others have failed to implement all the Southwest features, usually to their detriment. For example, Debonair failed to grasp the “no-frills” concept, resulting in ceased operations in 1999 (Francis, Fidato, & Humphreys, 2003; Francis et al., 2006).

### **2.6.2 Subsidiaries**

Subsidiaries refer to LCCs that are set up and wholly owned by major legacy carriers, however the business model also tries to encompass the Southwest philosophy of no-frills, cost reduction. These airlines will inherit certain assets (equipment, personnel, and aircraft) as well as liabilities (collective bargaining agreements, unions) from their parent airline. The low-cost strategy of such an airline will need to reflect those inherited traits. The airlines are managed autonomously but may, at times, be subsidised by the legacy carrier (Francis et al., 2006). UK examples include BMI Baby by BMI, Jet2.com owned by Dart Group PLC. and BA Cityhopper operated by British Airways. Globally, Subsidiary LCCs are formed in response to the success of the Southwest Copycats (Doganis, 2006). These airlines closely resemble regional airlines but differ in that they operate along point-to-point routes and offer no baggage transfer between flights.

### **2.6.3 Cost Cutters**

Cost Cutters are legacy carriers that are moving to adopt the LCC philosophy. Typically, they have simply began charging for service that were once inclusive (such as food, entertainment or checked baggage). Operators within this classification retain the hub-and-spoke system. Again, the level of adoption varies among this category. While some carriers are simply charging for once inclusive services, others are beginning to adopt a pricing strategy similar to Southwest Copycats by offering low-cost one-way tickets. Examples include Jet Blue and Frontier in the USA.

#### **2.6.4 Diversified Charter Carriers**

Recently, the charter airline industry (unscheduled air carriers) has taken to remodelling some routes to fit the LCC model. As charter airlines do not fly regularly scheduled routes, this is a large change in their corporate structure. In order to do this effectively, the parent company (a charter airline) utilises subsidiary airlines. They closely imitate the Southwest model by operating one type of aircraft, charging for food, operating point-to-point and offering one-way fares. A unique characteristic of these airlines is the relatively low-cost structure. Their parent airlines are often thought to have some of the lowest operating costs in the industry (Doganis, 2001). Examples of Diversified Charter Carriers are Thompson, sponsored by Britannia or formerly MyTravelLite by MyTravel (Francis et al., 2006).

#### **2.6.5 State Subsidised Competing on Price**

Within the international market, there are still some airlines that are heavily subsidised by government. The State Subsidised Competing on Price category isn't a true LCC. They can gain a competitive advantage by operating at a loss, subsidised by government, usually to attract attention to a new route or some national event. This is exemplified by Flydubai (Dubai Aviation Corporation), a United Arab Emirates state-owned low-cost airline.

### **2.7 Current Challenges Facing the Low-Cost Carrier Industry**

In recent years the airline industry as a whole has met a diverse array of challenges. Although much of the focus has recently been on the 2008 global financial crisis, the industry has been plagued with difficulties since deregulation occurred. Predominantly these centre around rising fuel prices, frivolous litigation, high fixed costs, insolvency, and fierce price competition within the industry (Belobaba et al., 2015; Doganis, 2001, 2006; Gilbert et al., 2001). Most of these challenges are external market forces and are

uncontrollable by management (an excellent example of this is flight delays/cancellations caused by unfavourable weather).

The success of the airline industry will always be tied to economic growth on both a global and regional scale (Doganis, 2006). Recently, the “triple threat” and housing crisis certainly had their effect on the industry as a whole, yet the LCCs have certainly fared somewhat better within the industry (Doganis, 2006). While several traditional carriers have been forced into bankruptcy or have been grounded altogether, many LCCs have been vastly expanding their route structure (especially EasyJet and Ryanair).

The most persistent challenge faced by any player within the aviation industry is rising fuel prices. Until the early part of the last decade the price of fuel was relatively stable (Doganis, 2001, p. 6). However, since 2007 crude oil prices have fluctuated between \$55 and \$180 per barrel (IATA, 2012); this rapid fluctuation in particular makes it very difficult to manage costs. Southwest, along with many LCCs, hedge their fuel when they feel that the price is low. Unfortunately, in such a market this is difficult to predict. In early 2008 Southwest’s fuel contract was up for renewal; at this time the price of Jet A (aviation grade kerosene) was at its highest point since the late 1970s. In a knee jerk reaction (uncharacteristic of Southwest) they hedged their fuel for the next ten years at this price. Later in the year the price dropped to its lowest point in this century (Bachman, 2008). Although Southwest did recover from this mistake, this was, for a short time, disastrous for Southwest.

Furthermore, the low-cost model itself is not at all protective against disaster (Doganis, 2006). As LCCs expand their route structure into one another's markets, rapid price competition will drive down average fares and load factors. This itself could be detrimental to the industry unless other strategies can be implemented. Doganis sees the necessity for the industry to implement survival strategies, however; this alone may not be enough to capture sufficient market share (Doganis, 2006). Given that with

increasing size, a LCC has more economic security, new strategies must be implemented by smaller airlines in order to regain market power.

This research attempts to highlight one such strategy; improved Service Quality. There is some evidence to suggest that improved Service Quality can have a positive effect on an airlines' financial performance, especially in highly competitive markets (Steven, Dong, & Dresner, 2012). However, the determinants of Service Quality in the airline industry have yet to be clearly defined.

## **2.8 The Modern Airline Industry**

The airline industry is continually evolving (Alderighi, Cento, Nijkamp, & Rietveld, 2012) and there is evidence supporting that many of the operating strategies of traditional and LCCs alike are beginning to become hybridised (Klophaus, Conrady, & Fichert, 2012). This has led to a complex marketplace in Europe where the lines between LCCs and traditional carriers are no longer so clearly defined (Fageda et al., 2015).

The growing need to adapt to market conditions has resulted in the archetypal European LCC business model shifting somewhat (Fageda et al., 2015; Klophaus et al., 2012). Many of the once state supported full-service airlines have begun to adopt some of the business models found in LCCs. Likewise, some LCCs have begun to offer inclusive or premium services that were uncharacteristic of the typical LCC business model in years past. There are now large LCCs that fly to major airports, offer both reserved and premium seating and that sell tickets through third-party websites such as Skyscanner.com (an exception would be Ryanair). Therefore, there is now no single LCC business model, but rather a collection of operating strategies that are adaptable to the airlines' particular market.

## 2.9 Conclusion

In stark contrast to how the industry initially developed, many of the airlines in the western world now operate in competitive markets. With the removal of the protection provided by legislative oversight and public subsidies, airlines were pushed into competition with one another. Both internal and external forces have led a vast restructuring of the industry (Morrison & Winston, 1986; Williams, 1994), leading to mergers, consolidations, and bankruptcies among many of the major industry carriers (Doganis, 1999; Williams, 1994). However, one success that has emerged during this period of traditional airline decline is the low-cost carrier – the future of aviation.

The aviation industry is characterised by a high degree of fixed costs, however the success of the LCCs centres around their ability to effectively manage those fixed costs (Alderighi et al., 2012). Not only does this allow cost savings to be passed onto the consumer, but by excluding unessential services from the base ticket price the consumer is left to better manage the price they pay for the ticket. However, as traditional carriers begin to streamline their operating practises, the LCC price advantage is shrinking. Furthermore, many of the LCCs have developed a reputation for unfavourable customer service (Southwest excluded). This is largely due to their competitive management strategy of high employee utilisation (Malighetti, Paleari, & Redondi, 2009a) and corporate culture (Murphy, 2001; Smith, 2013).

An increase in global travel has led to an increase in airline passenger numbers, yet rising fuel prices, competition in liberalised markets, and tight margins make profitability difficult to maintain. It is therefore essential that marketers focus their research on the airline industry to ensure its survival. Obvious attention should be directed toward factors affecting competitive advantage and profitability. Of the competitive avenues defined by Belobaba, Odoni, and Barnhart, the principal area for market research should be Service Quality (Belobaba et al., 2015). Airline route structure can be difficult, time consuming and costly, and price competition will

continue to drive fares nearer to the break-even point. Service Quality is now the last playing field for airlines to gain a competitive advantage within the marketplace.

Furthermore, marketers should focus attention to the LCC industry. This sector is the fastest growing and most profitable within the airline industry on an almost universal scale. The success of the model cannot be understated and with traditional carriers fast adopting “low-cost like” strategies, it appears that a large portion of the industry is headed in this direction.

The low-cost carrier is particularly interesting to academic research. This segment has seen rapid growth within the decade. Furthermore, whenever a LCC enters a market dominated by traditional carriers, it almost instantly becomes the dominant player (save the presence of another competing LCC) (Doganis, 2006; Francis et al., 2006; Gilbert et al., 2001; Michaels & Fletcher, 2009). Determining the drivers of these relatively new (for the aviation industry) business models success, as well as defining its peculiarities and nuances should be paramount for academics and industry watchers. No industry today is at such a turning point in which many players are redefining their operational, managerial and competitive strategies.

The roots of the LCC revolution lie in the late 1970 when critical legislation, the United States Deregulation Act of 1978, severely impacted the operational and competitive strategies of the aviation industry. Deregulation, liberalisation, open-skies agreements, labour union disputes, legislation and litigation have all led to the industry developing into what is now a highly competitive environment for the modern air carrier, and the emergence of the low-cost carrier. These airlines have developed competitive strategies drastically different than the traditional carriers. Low-cost carriers try to manage costs by cutting inclusive services from the base ticket price (the topic of unbundling of services will be expanded in the next chapter). However, margins will continue to diminish even after the airlines hit the zero point of service inclusion. This research sees the industry’s zero-sum game as a forthcoming affliction

as there is a finite number of services to exclude. Without serious strategic change, this will leave the industry in a terminal state. This research views quality of service (and the resultant customer satisfaction) as a viable means of gaining a competitive advantage in the future airline marketplace. Therefore, the next chapter will focus specifically on Service Quality in the airline industry (what it is and what needs to be done).



## CHAPTER THREE: SERVICE QUALITY IN THE AIRLINE INDUSTRY

### 3.1 Introduction

Her name was Ellen Church. Born in Cresco, Iowa, in 1904, she was a fully qualified nurse and pilot. She had a passion for aviation and felt that her experience and training as a registered nurse would make her an asset to an airline by allowing her to aid passengers in emergencies and on bumpy flights. She petitioned Steve Simpson from Boeing Air Transport for the role. He was so taken with this novel concept that he requested his manager employ her on a trial basis along the Oakland to Chicago route. In this request, he brilliantly exemplified the opportunity: “Imagine the psychology of having young women as part of the crew. Imagine the national publicity we could get from it and the tremendous effect it would have on the travelling public. Also, imagine the value they would be to us, not only in the neater and nicer method of service food, but looking out for the passengers' welfare” (Omelia & Waldock, 2003, p. 12). On May 15<sup>th</sup>, 1930, Boeing Air Transport (later to become United Airlines) became the first airline to employ a stewardess.

Ellen Church had so successfully demonstrated the concept of the stewardess that Boeing Air Transport soon hired eight ladies with similar qualifications. These early stewardesses had to meet with strict requirements: they were scrutinised for their attractiveness, and were required to be single and less than 25 years old. They were not allowed to weigh more than 115 pounds, however this was largely to minimise interference with the weight and balance of early aircraft as they moved about the cabin. The low ceilings and extremely narrow aisles of early aircraft also limited their height to a maximum of 5'4” (Omelia & Waldock, 2003, p. 17). On top of the physical requirements they were also required to be registered nurses.

The responsibilities of the early hostesses were numerous. In addition to many of the common duties of today's stewardess (such as serving food and issuing safety briefings), the early hostess had to battle with cold cabins, constant turbulence (many of the early airlines rarely flew above 10,000 feet), cramped cabins, extreme weather and unsafe aircraft (by today's standard) that resulted in frequent forced landings (Brady, 2000a). The United Airlines Air Stewardesses Manual outlined: "Check the floor bolts on the wicker seats on the Ford Tri-Motor to make sure they are securely fastened down, swat flies in cabin after take-off, and warn passengers against throwing lighted smoking butts or other objects out the windows, particularly over populated areas" (Omelia & Waldock, 2003, p. 18). Despite the challenges, their performance would revolutionise the air travel industry. With the "Original Eight," as they were later known to United Airlines, the era of in-flight service was born.

### **3.2 Phases of the Air Travel Experience**

The flying experience has changed considerably since the early days of air travel. Gone are the days of exclusivity. In the past, the relatively small demands for air transport allowed airlines to offer more personalised services (at both the airport and in flight) than many of today's passengers receive. Today, air travel is accessible to the masses. However, with this increased demand comes smaller seats, less legroom, lower quality meals, and an overall less personalised service. While full-service carriers still offer premium service options to a select few (such as First or Business Class), most of the LCC in operation do not (the exception being EasyJet, offering business class service on some routes).

From the consumers' point of view, the air travel experience can be divided into three distinct phases: i) check-in and boarding (airport side); ii) the in-flight phase and iii) arrival (leaving the airport), as illustrated in Figure 3.1. At each stage, the consumer has different needs and requirements and is conversely met with distinct challenges.

However, their experience naturally begins and ends at the airport, therefore the nature of the airport side must be examined in some detail.

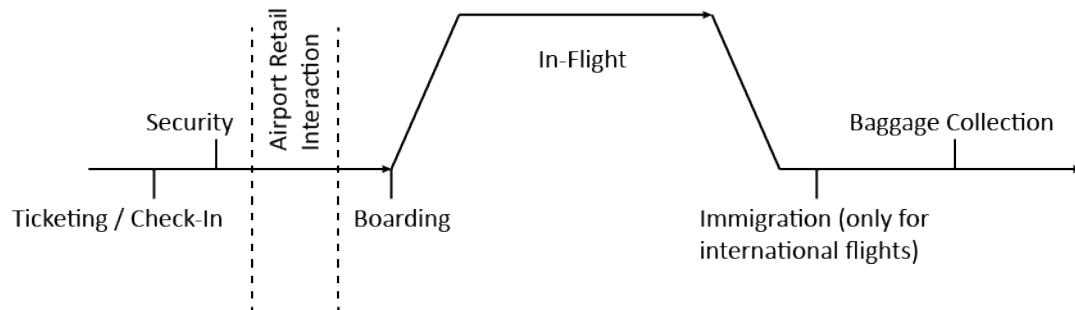


Figure 3.1. Phases of the Air-Travel Experience

### 3.3 Airport Phase

The airport experience has changed drastically within the last few decades. Previously, this was an area of little concern for enterprises other than those directly related to airline operations (Doganis, 1992). In the early years of pre-deregulation, the airport terminal was similar in style and function to a typical train station (Brady, 2000a). Passengers were greeted at the ticketing counter by welcoming airline staff. They had the luxury of some shopping, yet the large restaurant franchises and high-street shops or airport duty-free had at that time not entered the market. As passenger numbers increased post-deregulation, it became advantageous for retailers and franchisees to negotiate with the airports for store space in order to contact a unique, and somewhat captive, market (Barrett, 2004b).

The modern airport environment of the departure phase can be viewed in three sections: Ticketing, Security, and Retailing. Each of these sections contains different requirements and challenges for the passenger and airline management, as each section has separate acting authority figures. Ticketing, at many airports, is generally

managed by the airline (with the UK being an exception), security is in the control of national governance in most of the world, and retailing is overseen and run by third-party retailers/franchisees; therefore, it is important to examine each stage independently.

### **3.3.1 Ticketing**

Prior to the late 1990s, most airline tickets were purchased in person from the airline's ticket counter, or from a travel agent (Doganis, 2006). Despite allowing the airline to more closely control their pricing, this was burdensome for the consumer. During the last part of the Twentieth Century, online price-comparison sites became popular. This led to an e-ticketing revolution whereby consumers could easily and quickly engage in the comparison of multiple airlines' services and pricing. This new age of consumer is very price sensitive (Franke, 2004b; Park, 2007), highly informed and possesses a high degree of buying power (Robertson & ChengLung, 2005).

The almost universal adoption of e-tickets, coupled with online check-in procedures and the ability for many passengers to print their own boarding passes, has led to a more expeditious experience for many. There is no longer any need to wait in long lines at the check-in counter (as long as the passenger is without checked baggage). Online e-ticketing and boarding passes is an area where LCCs are leading the field (Franke, 2004b). Many LCCs, such as Ryanair, realised that long ticket lines can have an impact on efficiency and profitability. Therefore, numerous LCCs have even begun to charge passengers for printing a boarding pass at the counter (Malighetti, Paleari, & Redondi, 2009b). However, e-ticketing and online boarding passes have undoubtedly made the airport experience less stressful for the consumer and have speed up the transition to the security phase (Gkritza, Niemeier, & Mannering, 2006; Halpern & Graham, 2013; Pate & Beaumont, 2006).

### 3.3.2 Security

In the early years, security was of little concern (Brady, 2000a, 2000b; Lehrer, 2000). There were no baggage screenings or even checks for personal identification. The only requirement for a passenger to board a flight was to arrive shortly before departure and present a ticket. Passengers would often have their friends and family accompany them directly to the gate. January 5<sup>th</sup>, 1973 saw a marked change in the airport experience (Lehrer, 2000; Lindsey, 1973). Following a terrorist attempt to take control of Southern Airways flight 49 and crash it into the Oak Ridge National Laboratory in Oak Ridge, Tennessee, the US Federal Aviation Administration required that all airlines screen passengers and baggage prior to boarding (Lindsey, 1973). However, it was the responsibility of the airline to oversee security screening and the airport itself had no authority at this point. This screening was performed at the airline gate just prior to boarding.

The modern day airport security scenario is much more complex. Today, airlines have no control over the security screening process. This process is specifically overseen by the national government in all International Civil Aviation Organisation (ICAO) countries. Furthermore, post-September 11<sup>th</sup> (hereafter referred to as 9/11), security protocols can change rather rapidly, requiring consumers to stay educated on the subject. However, recent advancements in technology (such as whole body imaging systems) are soon to be adopted worldwide among all ICAO countries (Elias, 2010). This may streamline the process of security screening making it much faster and well as increasing reliability. However, passenger volume at larger airports can still make this process time consuming and the invasive nature of these security checks stressful for passengers (Gkritza et al., 2006). Gkritza, Niemeier and Mannering demonstrate the inverse relationship between wait times at airport security checkpoints and

passenger satisfaction (Gkritza et al., 2006)<sup>9</sup>; however, smaller airports with lower passenger volumes may offer shorter security wait times and may help reduce passenger stress (Barrett, 2004a; Francis et al., 2003).

There has been some examination into the effect of increased security measures and passengers' overall satisfaction with the air travel experience (Gkritza et al., 2006; Sindhav, Holland, Rodie, Adidam, & Pol, 2006); however, there is no clear evaluation of the impact of airport screening on passengers' perceptions of the air travel experience. There is also very little research into the effect of increased security measures on overall passenger volumes. There is some evidence that passenger screening has had little effect on passenger volumes while baggage screening was seen to dramatically reduce passenger volume post-9/11 (Blalock, Kadiyali, & Simon, 2007). Even though passenger screening procedures are out of control to both the airline and the airport authority, it is still a factor in passengers' overall evaluations of the quality of experience (Correia, Wirasinghe, & de Barros, 2008). Thus, the security process may undoubtedly affect how passengers behave as they transition to the next phase of the air travel experience (Perng, Chow, & Liao, 2010).

### **3.3.3 Airport Retailing**

Driven by increased passenger traffic, the airport has become a new frontier for retailers (Doganis, 1992). Gone are the days of passengers foraging for snacks from vending machines or waiting in line at cafeteria-style restaurants for poor quality food (Cerovic, 1998). Today's air traveller can choose from major restaurant franchises, high street retail shops or even speciality airport-specific business (such as the micro-hotel chain YOTEL). European airports often offer high-street retailers that utilise innovative layouts (Cerovic, 1998; Freathy & O'Connell, 1999). Many airports in Europe have

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<sup>9</sup> The qualitative study in Chapter Seven further illustrates the relationship between the airport experience and customer's perceptions of the airline experience.

begun to see shops as brand development tools for the airport itself (Cerovic, 1998). Conversely, the North American market is significantly behind the European/UK market in airport retailing investment. In the US, some retail shops have begun to take hold, however; these are mostly in the food-service industry (Cerovic, 1998).

The increased privatisation of airports across Europe has fostered the commercialisation of the airport environment (Doganis, 1992) and created novel approaches to revenue generation and management. Becoming more prevalent is the idea of the airport as not just a transient gateway from one destination to another, but as a destination in its own right (Freathy & O'Connell, 1999).

Typologies of airport retailing have become highly varied in recent years (Freathy & O'Connell, 1999); however, retailers can be classed into four main categories: strict commercial services, food and beverage, complementary services, and advertising services (Jarach, 2005). Strict commercial retailers offer items such as jewellery, car rental, high-street apparel, and newsagents. These make up the majority of goods purchased within the airport. Food and beverage storefronts can greatly wide-ranging, offering services from typical fast food franchises to four-star sit-in restaurants. Complementary services are there to directly enhance the passengers' travel experience by providing additional amenities while travelling. These include cash machines/currency exchange, internet access, or religious services.

There is some discrepancy as to the passengers' desires and emotional state when entering the retail side of the airport (Bor, 2003). The opponent-process theory of emotion (Bor, 2007) maintains that after passengers have made their way through the security phase, feelings of tension become replaced with feelings of excitement (Thomas, 1997). This creates a "happy hour," whereby passengers can engage in shopping or other leisure activities (Perng et al., 2010). However, it is more likely (especially in the post-9/11 travel experience) that many passengers, driven by a heightened sense of anxiety resulting from their unfamiliarity with the air travel

experience, will experience “gate lock” whereby they quickly pass through the terminal and arrive at their departure gate much earlier than required (Freathy & O’Connell, 1998). This is confirmed by observing that many airports are beginning to place storefronts near departure gates.

Airport retailing is expected to grow exponentially in the near future (Freathy & O’Connell, 1998, 1999; Thompson, 2007). Turnover in airport retailing may not be large, but it represents an important opportunity for brand exposure (Halpern & Graham, 2013; Thompson, 2007). With the privatisation of many of the world’s airports, the importance of revenue generated from airport retailing is at an all-time high. However, simply providing passengers with retail opportunities may not be enough (Halpern & Graham, 2013). A differentiating factor among airports may in fact be the quality of service provided to passengers (Correia et al., 2008; Fodness & Murray, 2007; Halpern & Graham, 2013; Tsai, Hsu, & Chou, 2011).

### **3.3.4 Airport Service Quality**

Despite the importance of the airport servicescape to both the travel and retail industries, only a small amount of research into passenger’s perceptions of airport Service Quality has been undertaken (Fodness & Murray, 2007; Tsai et al., 2011). This is most likely due to the relatively new (in terms of the whole of aviation history) concept of the airport as a retailing centre as well as a travel hub (Halpern & Graham, 2013). While Tsai, Hsu and Chou used the SERVQUAL model as the base for their research, Fodness and Murray undertook a qualitative study to discover the determinants airport Service Quality (Tsai et al., 2011; Fodness & Murray, 2007). Fodness and Murray sampled 100 participants at a major airport in the Southwest of the United States through in-depth interviews and focus groups and employed content analysis techniques for both. They discovered that the determinants of passenger’s Service Quality of airports consisted of three primary dimensions and three sub-dimensions of each (Figure 3.2). This is similar to Brady and Cronin’s (Brady & Cronin,



2001) Hierarchical Model of Service Quality outlined in Chapter Four. Fodness and Murray (Fodness & Murray, 2007) established the three primary dimensions as Servicescape, Interaction with Service Personnel and Services.

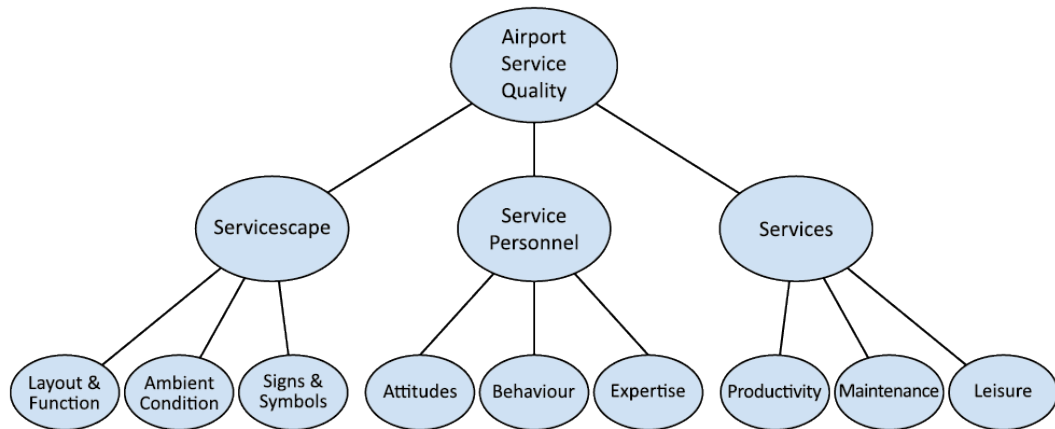


Figure 3.2. Airport Service Quality (Fodness and Murray, 2007)

### 3.4 The In-Flight Phase

Following the experience at the airport, the customer enters the second phase of the air travel experience: the in-flight phase. The core airline experience has changed significantly since the introduction of market liberalisation. As described in Chapter Three, the early days of air travel was designed for a limited number of highly demanding consumers. Early travellers had the luxury of large seats with ample legroom, in-flight meals were served on china plates with silverware (often branded with the airline logo), and an accompanying gift was often given to passengers, such as playing-cards, free magazines or even a bottle of Jim Beam Whiskey (Omelia & Waldock, 2003).

As the economic effects of deregulation took hold during the 1980s and airfares began to decline as a result of increased competition, airline services began to deteriorate (Doganis, 1999; Rhoades, Waguespack Jr, & Treudt, 1998). Today,

premium airline service is almost non-existent except to a select few customers (such as First and Business Class). Compared to the experience of today, standard fare passengers on traditional carriers have less legroom, less comfortable seating and reduced meal quality while the LCCs have removed inclusive services altogether.

### **3.5 The Airline “Product”**

The airline “product” is highly complex (Belobaba et al., 2015; Doganis, 2006; Halpern & Graham, 2013). The basic service encompasses nothing more than the right to board a particular flight and be transported with reasonable safety from point A to point B within the schedule stated on the ticket. Seats on board the aircraft operating within given markets are relatively homogeneous. This results into distinct consequences for players in a given market (Doganis, 2006). Firstly, homogeneity increases the threat of new entrants within the market. Without drastic service differentiation, open-skies agreements and high passenger yields can make it relatively easy for established airlines to enter new markets. Secondly, the homogeneous nature of the industry drives competitors to differentiate themselves. Traditionally, players have tried to gain a competitive advantage by offering passengers the opportunity to fly on-board the latest aircraft types, offering more frequent services within competitive markets or by spending money on more tangible aspects of the air-travel experience such as in-flight entertainment or airport lounges (Belobaba et al., 2015; Halpern & Graham, 2013). Many traditional carriers are attempting to overcome homogeneity and beginning to differentiate themselves based on inclusive services. This usually involves the promotion of new and advanced first-class seating (Omelia & Waldock, 2003). Some traditional carriers now offer first class travellers comfortable seating that can include (depending on the airline and market served) the following: reclining seats that are one to two inches wider, recline more than economy seating and can have ten to thirty inches more legroom, lie-flat seats that recline completely horizontally and in-flight

suits, which consist of lie-flat beds with a privacy divider between areas (SeatGuru.com, 2014). This level of service often comes with more attentive cabin crew, higher quality meals, personal workstations and electrical sockets to power laptops and other devices. Many traditional carriers (such as JAL, Korean Air, Emirates, and Cathay Pacific) are returning to a pre-deregulation branding strategy, whereby excellent service (albeit mostly to first class passengers) is a highlighted feature (Seatguru, 2013). Price competition is still the most popular way to gain an advantage in many markets, especially when considering LCCs (Doganis, 2006, 2009). However; due to ever shrinking margins, this zero-sum game is may reach a point that could be terminal to the industry as a whole.

Most airlines recognise that their service is inextricably linked to a variety of other products and services (Doganis, 2006, 2009). The airline is not a service that is consumed alone, it is almost always consumed in conjunction an external experience driving the purchase, such as a holiday or business trip (Barrett, 2004a). Airline services can be a highly varied, yet an integral part of the consumer's decision making process (Park, 2007). While most airlines face similar market challenges, the level, type and quality of service can still be highly varied. However, the LCC industry, with its commitment to cost reduction, offers the most standardised services (or lack thereof) among operators in the airline industry (Barrett, 2004b). This similarity makes modelling Service Quality in this industry very interesting to researchers wishing to highlight its importance by providing a sample with fewer differing variables between subjects, thus highlighting minute operational differences.

### **3.5.1 Service Quality in the Low-Cost Carriers**

The debate over Service Quality in the airline industry begins with de-regulation in the late 1970s (Cunningham, Young, & Lee, 2004). While the airlines may have mixed opinions on deregulation, the entrance of non-state-owned carriers into the marketplace has had a positive impact in terms of overall customer satisfaction (López-

Bonilla & López-Bonilla, 2008a) . López-Bonilla and López-Bonilla (López-Bonilla & López-Bonilla, 2008b) outline that the discrepancy in satisfaction is a result of poor quality on part of the state-owned carriers. They maintain that state carriers often suffer from “Distressed Airline Syndrome.” This is “a political and organisational virus that affects most state-owned carriers” and is directly related to a combination of factors, such as: “The inability to replace inadequate staff, poor management and strong unions” (López-Bonilla & López-Bonilla, 2008b). While this might not be the case for all airlines, it is certainly a reasonable explanation for the shortcoming of most state-owned carriers and is congruent with the theory that private organisations generally perform better than state-owned firms (Boardman & Vining, 1989).

Chapter Two introduced the concept of LCCs as champions of the liberalised market. Their services are remarkably different from traditional carriers. Almost every aspect of their service strategy is centred on reducing costs (Barrett, 2004b). Despite an almost universal corporate focus on cost reduction, most players have their own interpretations of what aspects of airline service are important to their customers (Pate & Beaumont, 2006). The grandfather of all LCCs, Southwest airlines in the United States, not only has a different service strategy than that of traditional carriers, but they also evolved to remain competitive in a changing market. Initially, Southwest offered single tickets in only one seat class, quick turnaround of aircraft and point-to-point routing on board a standardised aircraft type (Harvey & Turnbull, 2010). Attractive, young stewardesses in “hot-pants” served the cabin. Early travellers even received a free bottle of whisky with every ticket (Omelia and Waldock, 2003). Today Southwest have replaced many of these now-outdated services with more standard in-flight services and uniforms (Harvey & Turnbull, 2010). However, the focus is still on reducing cost in order to lower fares while “making flying fun” (“Nuts About Southwest - Funny Stuff...,” 2012). The success of the Southwest model has made its way to the European market where two Southwest Copycats (Ryanair and EasyJet) have begun to dominate the market (Doganis, 2001).

During his introduction as CEO of the Irish airline Ryanair, Michael O’Leary incorporated much of the Southwest business model and took it to the next level and established a complete “no frills” strategy (Ryanair, 2012a). This is slightly different from the traditional LCC model of “low-fare” airlines in that Ryanair offers no inclusive services at all<sup>10</sup>. However, unlike at Southwest, service at Ryanair isn’t “fun” (Harvey & Turnbull, 2010; O’Connell & Williams, 2005); according to popular media reviews, it isn’t even pleasant (Calder, 2002; Murphy, 2001). The no-frills strategy employed by Ryanair encompasses every aspect of airline operations and has even reached the highest level in the company. Ryanair CEO, Michael O’Leary, has been well-publicised in voicing his opinions in a brash, unprofessional manner. Ryanair seems to use O’Leary’s outlandish behaviour as a marketing strategy (Barrett, 2004b; Calder, 2002; R. Johnson, 2009; Killduff, 2010). In a statement to the American news channel CNBC, O’Leary remarks about some controversy over the Ryanair Logo: “She looked like a bloke with wings. Somebody said we should give her bigger boobs. So we did. Some quango said we were demeaning women. Fuck off. She’s got bigger boobs and the story got two half-pages in the Sun, worth £25,000 each” (Johnson, 2009).

Service with Ryanair is basic. Almost nothing is included. Passengers must even pay if they need a boarding pass printed at the airport instead of printing one at home themselves (Malighetti et al., 2009b). This strategy has allowed Ryanair to offer a base tariff that is the lowest in the industry (Ryanair Annual Report, Ryanair Holdings PLC., 2012). Ryanair is adamant about its pricing policy and aims to be the “cheapest airline in Europe, and nothing else” (Killduff, 2010).

Recent legislation from the European High Court may affect Ryanair's profitability and force them to rethink their customer service strategy (Mulligan, 2013). The European High Court ruled in favour of a Ryanair passenger who claimed damages

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<sup>10</sup> Ryanair is still considered a “Southwest Copy-cat” as it is a wholly owned airline that incorporates much of the low-cost model established by Southwest.

against the company after being stranded following the Eyjafjallajokull volcanic ash cloud eruption in Iceland during 2010. Prior to this ruling, Ryanair already had a claims procedure in place to reimburse passengers' losses due to delays caused by the volcanic ash disruption (Ryanair, 2013). Despite Ryanair's claim the passenger's compensation was excessive, the court stated: "An airline has no limit in its responsibility to its passengers" (Metro, 2010; Mulligan, 2013). This has left Ryanair in a more vulnerable position, requiring the company to adjust its customer service policies.

This avoidance of Service Quality by Ryanair is in stark contrast to its largest competitor EasyJet (Pratley, 2012). While still offering a no-frills service strategy, EasyJet seems to operate by the old adage, "service with a smile". Its customer centric views are even expressed in their long-term strategy published in their corporate annual report ("EasyJet, Plc. Annual Reports and Accounts 2013," 2014). A major part of their strategic framework is to focus on the customer and improve the customer experience. EasyJet sees its employees as an important asset, both to the provision of quality service and to maintaining an overall competitive advantage. Furthermore, EasyJet is the only LCC to actually publish "overall customer satisfaction" and "likeness to recommend" values as Key Performance Indicators in their corporate annual reports ("EasyJet, Plc. Annual Reports and Accounts 2013," 2014). Therefore, in the context of approach to Service Quality, Ryanair and EasyJet are polar opposites. However, they both participate in a practise of in-flight retailing. Although in-flight retailing began as an additional service on board traditional carriers, it has now been expanded into the LCC model to encompasses basic services.

### **3.5.2 In-Flight Retailing**

Form early in airline history, many airlines (such as Pan Am) sold exclusive goods to passengers duty-free (Omelia & Waldock, 2003). Often these products were specially

held for the airlines exclusive passengers by the producer and accessing these duty-free goods was one of the fringe benefits of the early days of flying (Omelia & Waldock, 2003). However, since the introduction of duty-free shops in the most frequented terminals there has been a negative impact on in-flight duty-free sales (Francis et al., 2003). This is most likely due to the more tactile experience of shopping in the airport's retail store than the catalogue-style purchases made on-board the aircraft (Omar, 2002).

With external market forces and increased competition driving down margins for many of today's airlines, selling ancillary products in conjunction with the airline ticket has regained popularity (Doganis, 2006). While traditional carriers have long offered luxury items, the LCCs have begun to offer a variety of ancillary products or services. These can be highly varied and can range from in-flight entertainment, in-flight meals and drinks to lottery cards or even post-flight services such as accommodation (EasyJet now operates its own range of hotels). The low-cost carrier has been a champion in this area, and many of the services associated with traditional carriers (such as a baggage allowance, in-flight meals, drinks and entertainment) have been transformed into ancillary revenue streams (Piga & Filippi, 2002). This allows the LCC consumer to better manage the overall cost of air travel by directly choosing which services they wish to purchase. With the LCC model comes an interesting change in the consumer experience. No longer is the cabin simply a place where service are rendered, it is now a place where products are sold. In this model, services like in-flight meals, entertainment, or (in Ryanair's case) toilets provide an alternate revenue stream for the LCC. It also allows both the airline and the consumer to better manage expenses.

Ancillary revenues have become very important to LCCs (Michaels & Fletcher, 2009). During the fiscal years of 2009, 2010 and 2011 Ryanair generated almost 600 million Euros in ancillary revenue each year (Ryanair, 2012b), accounting for over 20% of their total revenue. Moreover, over half of all ancillary revenues sold during this time were from in-flight sales (Ryanair, 2012b, p. 46). The importance of managing this

revenue stream cannot be understated. With over 12% of Ryanair's total revenue coming from the in-flight sale of food, beverages and material goods alone, this is clearly a key item on Ryanair's balance sheet and is integral to maintaining profitability and a competitive advantage (Ryanair, 2012b, p. 47).

This new strategy of selling goods or services while in-flight has inadvertently turned the cabin of the aircraft into a storefront with the cabin crew acting as salespeople. Traditionally, a crew member would simply offer a passenger a choice of beverages; now they are encouraged to up-sell or suggest various products. This is common practise with many LCCs, particularly Ryanair, where crew member's salaries can be based on sales performance (Ryanair, 2012b, p. 60). This creates a new set of objectives for the airline personnel who must act as both service providers and retail salespersons.

### **3.5.3 The Importance of Service Quality to Profitability**

Despite the “no-frills” philosophy, many aspects of air transport service have improved with LCCs in comparison to their legacy counterparts (Barrett, 2005). Much of this comes from the LCCs point-to-point design, the use of “small” airports, and high utilisation of labour. The point-to-point route structure also offers a reduced chance of lost luggage over the traditional hub-and-spoke system of traditional airlines (SITA, 2015). Overbooking (the practise of selling more tickets than available seats for a given flight) is also not a problem with LCCs as most carriers do not oversell their flights. Therefore, there is very little chance that a passenger may be denied boarding (as with the legacy airlines), which can lead to passenger frustration (Wangenheim & Bayón, 2007). Furthermore, according to data collected by the Civil Air Authority in 2013, on-time performance tends to be much better with LCCs than with legacy carriers. For



example, in 2013 Ryanair produced an on-time performance<sup>11</sup> of 93% and EasyJet 88%, while British Airway only produced an on-time performance of 65% (Civil Aviation Authority, 2012). This is most likely because of the point-to-point system, operating from smaller secondary airports, and the high utilisation of labour (Barrett, 2004a).

As their business model dictates, LCCs are price competitive airlines. This has resulted in an operating strategy of reduced or unbundled services. While amenities such as food and entertainment may be available on the LCC, they are not included in the ticket price and must be purchased for an additional fee. The key being that the cost savings of the LCC is substantial enough to warrant this unbundling of services. However, while passengers may be able to purchase similar services as a traditional carrier on a LCC (in addition to the base fare), it is not known to what extent this unbundling has on passengers' perception of Service Quality.

Service Quality is becoming increasingly important to air travellers and the airline industry (An & Noh, 2009; Gilbert & Wong, 2003; Park, Robertson, & Wu, 2006; Tiernan, Rhoades, & Waguespack, 2008). Service Quality can have a significant effect on establishing customer loyalty within the industry (An & Noh, 2009; Chang & Chang, 2010).

As the average person in the UK will spend around 12 full days on board an aircraft in their lifetime (Anderson, 2015), maintaining loyalty may be important for industry success.

Passengers' purchase behaviour differs greatly in respect to what airline they choose to fly. This behaviour can vary with passenger demographics (Park et al., 2006) and reasons for travel (Harris & Uncles, 2007). Park, Robertson and Wu (Park et al., 2006) determined that Service Quality is crucial to the decisions making process, as it

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<sup>11</sup> Measured as a percentage of flights arriving early to 15 minutes late.

is a driver of both perceived value and passenger satisfaction. However, satisfaction itself is not always guaranteed to produce repurchase behaviour as repurchase effect can be moderated by convenience, income, competitive intensity and consumer involvement (Seiders, Voss, Grewal, & Godfrey, 2005). Given that convenience is nullified by the aviation market structure (airlines only compete within the markets that they serve) and there is little consumer involvement within the LCC market (LCCs are not heavily involved in consumer loyalty schemes), the most important driver of repurchase behaviour for LCC industry is price.

Price is negatively associated with consumers' repurchase intentions in the airline industry (Park et al., 2006). If perceived ticket price is low, then consumers are more likely repurchase with the airline. This could explain some of the success of the LCCs "no-frills" business models. However, at this time, the consumer has no way of comparing airline services (short of flying on each airline operating a given route). This could change with the development of an instrument that would aid consumers in choosing the airline that offers the most satisfactory level of service at the most economical price (given that there is more than one LCC serving their market). This would make maintaining a high level of Service Quality an important strategy in the highly competitive LCC industry.

### **3.6 Conclusion**

The literature suggests that each facet of the air-travel experience can have an effect on customer's perception of Service Quality (Park, 2007). However; within the British market, many of these factors are out of the control of the airline. At many airports in the UK, ticketing, check-in and baggage are handled through a third-party contracted by the airport (for example, Servisair at Edinburgh Airport) thereby nullifying the airline's influence on the provision of such services. Furthermore, many passengers now choose to print their own boarding tickets and may bypass the ticket counter

altogether (save having to check baggage). The retailing side of the airport experience is uniform for all passengers and is again out of control of the airline. Within the airport, LCC do not maintain proprietary lounges (although EasyJet allows for booking into third-party lounges via their website). These factors make the air-travel experience in Britain somewhat more uniform than in other markets. The LCC experience is the most standardised when compared to traditional carriers. This should magnify the effect of Service Quality on competitive advantage.

Removing inclusive services may become a self-defeating prophecy for the LCC industry (Doganis, 2006; Francis et al., 2006; Graham, Alessandro and Humphreys 2006). On one hand, it allows airline customers to individually tailor their travel experience. On the other, once all services are removed it puts airlines in direct price competition. This could make it difficult for low-cost airlines to differentiate themselves from one another within markets. To add to this problem, traditional carriers are beginning to adopt such cost-cutting strategies while offering inclusive services. Therefore, industry players will need a way to maintain a competitive advantage. One way to do this is to establish a reputation for excellent Service Quality. In most service sectors, Service Quality is directly related to market competitiveness and overall profits (Gronroos, 1984, 2006); however, profitability cannot be sustained below the break-even price for given service. Fierce competition and increasing fixed costs could eventually drive many players to operate at the break-even point, therefore making price competition very difficult and driving competitive advantages into other areas (such as service or advertising).

Most of the costs in the aviation industry are fixed within a given market, therefore the break-even ticket price should be similar among all LCCs operating within that given market (Belobaba et al., 2015; Doganis, 2006). This is because LCCs share common operating strategies (point-to-point markets and lack of inclusive services), management practises (in respect to maintenance and employee utilisation), and equipment (the industry highly utilises the popular Boeing 737). This zero-sum

game of cutting cost will be terminal unless the LCCs can find alternate revenue streams. One of the most lucrative avenues for alternative revenue generation is ancillary sales. Such activities are very important to profitability as they can make up over 10% of total revenue (Ryanair, 2012b). Given a retailing focus, these revenue streams could be easily managed.

All LCCs attempt to sell passengers consumer goods while in flight. This creates a wholly unique condition inside the aircraft. On board these airlines, the servicescape and the retailing environment are inextricably linked. While some service providers in other industries also sell goods along with their services (for example, hair salons selling shampoo and hair care products, or an auto mechanic selling car batteries), only on the LCC are these two so interconnected. For the airline, such sales are a vital revenue stream unlike other services who sell products on a purely value-added premise. The consumer on-board the LCC cannot leave to purchase the goods elsewhere. If the consumer becomes hungry or thirsty they have no choice but to purchase food and beverages from the airline. Therefore, within this unique environment, these two systems must affect each other. It is thus vitally important to determine what relationship they have on one another. Potentially, there may be an inverse relationship between Service Quality and in-flight sales. If so, a lack of high quality service could act detrimentally to the airline.

Many of the popular methods for measuring Service Quality (for example, SERVQUAL, SERVPERF or SERVPEX) have been applied to multiple industries. While there has been some attention to Service Quality in the airline industry (for example, An & Noh, 2009; Parast & Fini, 2010; Park et al., 2006; Park et al., 2004; Park, Rodger, & Wu, 2009; Park, 2007; Saha, 2009), most of this has been qualitative in nature. Some research has attempted more quantitative measures, but they typically employ the SERVQUAL model (Chau & Kao, 2009) or extremely complex fuzzy integral methods (Liou & Tzeng, 2007; Tsaur, Chang, & Yen, 2002). In this industry a hierarchical performance-only measurement may be more theoretically appropriate.

The research into the hierarchical nature of airport quality (Fodness & Murray, 2007) drives investigation into the structure of airline quality. Since these two systems complement each other, it is possible that airline quality can also be examined as a hierarchical construct.

Most academic research into airline Service Quality illustrates that it is important to customer satisfaction, loyalty (Oh, 1999; Spreng & Mackoy, 1996; Taylor & Baker, 1994), future purchase intentions (Park et al., 2004) and a firm's competitive advantage (Parast & Fini, 2010; Suzuki, Tyworth, & Novack, 2001). Customer Satisfaction has long been viewed as an antecedent to Service Quality while Customer Loyalty and Purchase Intentions are often viewed as service outcomes. This relationship puts Service Quality at the centre of these factors; a better understanding of Service Quality in a given industry could help link the understanding of the other three. This makes examining Service Quality important to the airline industry.

However, there are many possible methods for examining Service Quality in the low-cost carrier airline industry. The following chapter will discuss the core elements of Service Quality literature, including its constructs and measurement, to determine relevant gaps within the literature.

## CHAPTER FOUR: SERVICE QUALITY

This chapter provides an in-depth review of the Service Quality literature. It covers the lineage of Service Quality through its genesis, to the current iteration of modern theory. Research within this area is vast and diverse, encompassing theoretical developments and applications; this chapter focuses largely on major theoretical developments within the literature. The main body of Service Quality research begins in the early 1980s and continues until around 2001.

### 4.1 Service Attributes

There are a wide variety of services in most developed nations; there are almost as many types of services as are service providers. Each service has its own characteristics and can be associated with a set of classifications. Understanding these classifications is important to differentiating the service sector from manufacturing and helps researchers to better understand the peculiarities of different service sectors.

#### 4.1.1 Characterising Services

All services typically have a mix of four general character traits. These traits help distinguish services from the manufacturing industry. These have been identified as (Zeithaml & Bitner, 2003, p. 20):

- *Intangibility*: Services are performances or actions. They cannot be seen, felt, tasted or heard. They are experienced, rather than consumed. Manufactured items can be visually measured and empirically tested to assure consistency and quality. Intangibility makes this kind of quality measurement impossible for a service provider. Likewise, the consumer is unable to try the service before making a purchase, which creates unique marketing implications for the services industry. Furthermore, even after a service is rendered, the consumer

may not even fully understand the service performed. In the case of technical services (such as: an auto mechanic, doctor or surgeon), the consumer trusts in the provider that the service has been performed to an adequate degree because the consumer lacks the knowledge or experience to ascertain a valid judgement of the service.

- *Heterogeneity*: The manufacturing industry is dedicated to product consistency (evident in modern manufacturing philosophies such as Six Sigma). No two services are exactly the same. Additionally, no two consumers are exactly alike. The service sector seeks to reflect this by providing a more individualised outcome. In this way, services are more akin to performances than productions. An attorney may provide a different service experience to two different customers, on the same day. The needs of the consumers may be completely different and the attorney must adjust his service accordingly. Furthermore, the performance aspect of the service experience lends itself to a high degree of variability. The attorney may provide a more detailed service to customers in the afternoon than early in the morning (when he is tired). Many factors affect the service experience, from the mood of the provider to the varying needs of the consumer. In this, no two services are ever the same.
- *Simultaneous production and consumption*: Unlike manufactured goods that can be produced, stored, transported and consumed time and again, services are consumed at the time of production. In many cases (such as a restaurant, cleaning service, or travel agency), the service is sold before it is consumed. The consumer cannot try before they buy and therefore relies heavily on external cues (for example, the appearance and attitude of employees) to make an informed decision before purchasing. The interaction between the service provider (or employees of the service provider) and the consumer strongly affects perceived quality of service and customer satisfaction.

- *Perishability*: Unlike many manufactured goods, services cannot be saved, stored, resold, or returned. Once a service output is produced, it must be consumed. An hour's time in an attorney's office, a doctor's visit, haircut, or a seat on an aeroplane cannot be returned once it is consumed (despite how much one may wish it). Service providers are then required to have strong recovery strategies in place to account for unsatisfied customers.

The underlying theme of these elements points to a greater risk on the part of the consumer when purchasing a service as opposed to a manufactured good (Shostack, 1977). This can result in a greater level of pre-purchase anxiety than with manufactured goods. A firm's reputation for consistently providing consumers with a high quality of service can help to alleviate some of this anxiety (Gronroos, 1982). That makes understanding the quality of service outputs extremely important to managers, whose success in part depends on their ability to effectively communicate the quality of their service. To understand and convey the quality of service effectively, managers need a concrete metric with which to measure the quality of service outputs.

The largest distinguishing factor between services and the manufacturing industry is their degree of interaction with the consumer (Lovelock, 1983). It is also important to recognise that each service is different. The four characteristics of services exist in different degrees depending on the service offered; they may even be dynamic, varying with each service encounter. This variation can make classifying most services difficult at times.

#### **4.1.2 Classifying Services**

There has been significant research and debate over classifications of services (Chase, 1977a; Chase & Tansik, 1983; Lovelock, 1983; Schmenner, 1986; Tansik, 1990; Wemmerlöv, 1990). Many classifications involve some degree of contact with the customer, be it "high or low" (Chase, 1977b; Schmenner, 1986) or more recently,



“direct, indirect or no contact” (Wemmerlöv, 1990). Chase and Tansik (1983) concluded that service sector businesses can be divided into three general classifications: Pure Service, Mixed Service and Quasi-Manufacturing. A Pure Service describes any system that supplies public need, and can be anything from a hair stylist, a ride in a taxi or a trip on a train. Mixed services often have a production element and may involve some tangible product (for example, a restaurant). Quasi-Manufacturing services contain fewer of the service specific attributes than the other classifications and more resemble manufacturing. These can be thought of as specialist-manufacturing organisations that build products that are designed and conform to a customer's specific requirements. In contrast to the three part classification outlined by Chase and Tansik, Lovelock (Lovelock, 1983) took a multidimensional approach to service classification. His 2x2 approach (Figure 4.1) suggested that services could either be physical or intangible and either serviced customers or customers' possessions. This concept was later upheld (Schmenner, 1986); however, with slightly different definitions of the axis.

It seems that this debate is unresolved (Chowdhary & Prakash, 2007) and may be entirely dependent upon context (Silvestro, Fitzgerald, Johnston, & Voss, 1992). This research does not seek to resolve this debate, but rather highlight that there are methods by which a service can be classified.

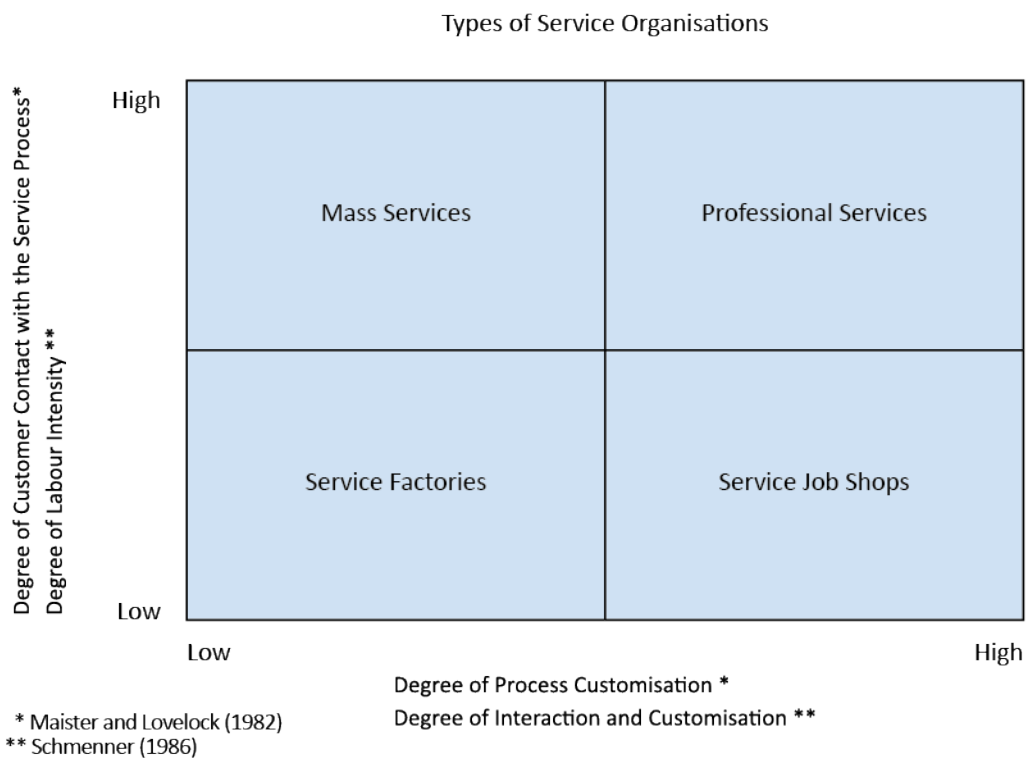


Figure 4.1. Service Classifications

## 4.2 The Role of Customer Satisfaction

Service Quality and Customer Satisfaction have long been viewed by academics as distinct constructs (Bitner, 1990; Carman, 1990; Albert Caruana, 2002; Cronin, Brady, & Hult, 2000; Cronin & Taylor, 1992; Spreng & Mackoy, 1996); however, their relationship remains to be fully elucidated. This topic generated a great deal of debate within the Marketing literature (Cronin & Taylor, 1992, 1994; Jones, Mothersbaugh, & Beatty, 2000; Woodside, Frey, & Daly, 1989; Zeithaml et al., 1988) and discussion continued alongside the Service Quality literature until around 2002.

In much of the modern academic literature, Service Quality is viewed as an antecedent to Customer Satisfaction (Anderson & Sullivan, 1993; Brady, Cronin, & Brand, 2002; Caruana, 2000, 2002; Cronin & Taylor, 1994; Parasuraman, Zeithaml, &

Berry, 1994)<sup>12</sup>. Excellent quality will produce a satisfied customer. Customer satisfaction may also function as a mediator between Service Quality and consumers' behavioural intentions. Therefore, perceived Service Quality and Customer Satisfaction should be measured independently from one another (Dabholkar et al., 2000).

Alongside Service Quality, switching barriers may influence overall customer satisfaction (Jones et al., 2000). These can include anything that increases the difficulty of switching service providers (such as price, availability or bureaucracy). Figure 4.2 depicts this relationship of Service Quality and Satisfaction, and consumers' Behavioural Intentions. In many sectors, competition is naturally the most intense when switching costs are low. In such markets, Service Quality would be an excellent avenue for gaining a competitive advantage.

The causal relationship to Service Quality and lack of a clear definition of Customer Satisfaction results in this being an area of continuing debate within the Services Marketing literature. This study does not seek to resolve any of these issues, only to highlight the importance of Service Quality in the overall customer evaluations of service performance and behavioural intentions. Given the significant role of Service Quality, it becomes an important variable for management and having an accurate metric for Service Quality could aid managerial decision-making.

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<sup>12</sup> Parasurman, Zeithaml and Berry had originally characterised Customer Satisfaction as a transaction-specific measurement and Service Quality as a global measurement; however, they conceded that Customer Satisfaction is indeed an antecedent of Service Quality in their 1994 paper *Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research* published in *The Journal of Marketing*.

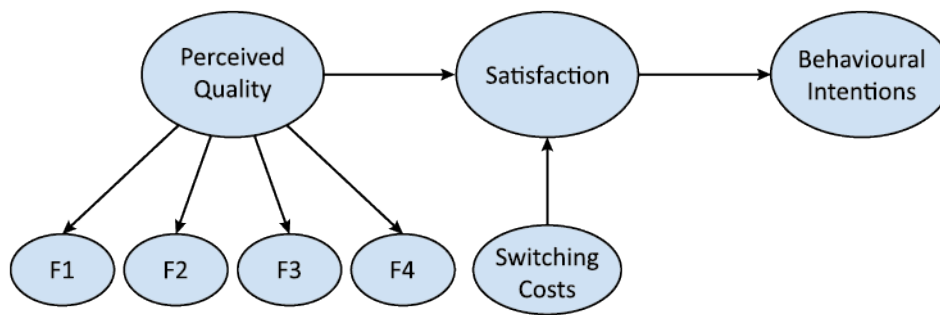


Figure 4.2 - Customer Satisfaction (Dabholkar, Shepard and Thorp, 2000; Jones, Mothersbaugh and Beatty, 2000)

### 4.3 Measuring Service Outputs

Quality is a conformance to a specification (Crosby, 1979). Within the manufacturing sector, the producer defines these specifications; however, within the service sector, such specifications are largely defined by the consumer (Berry, Parasuraman, & Zeithaml, 1988). Early research saw Service Quality as a result of process quality and output quality (Lehtinen, 1983). The consumer judges process quality during the service and output quality after the service. Therefore, it is the consumer who definitively makes the determination of Service Quality.

Theoretical debate and development of Service Quality largely took place in the late 1980s and early 1990s. Much of the research since this time has focused on which concept best measures Service Quality or modifications of popular models. A common theme resonates throughout the literature: the valuation of the service outputs rests in the hands of the consumer. Researchers refer to this as perceived Service Quality. Traditionally, two schools of thought dominate Service Quality: the Nordic School (Figure 4.3) (Gronroos, 1982, 1984, 2006) and The American School (Berry et al., 1985; Brady et al., 2005, 2002; Cronin & Taylor, 1994, 1992; Parasuraman, Zeithaml, & Berry, 1988; Parasuraman et al., 1985; Parasuraman, Zeithaml, & Berry, 1991; Valarie Zeithaml, Berry, & Parasuraman, 1996).

Much of the modern Service Quality theory relies on a disinformation between what the consumer expects, and what they actually receive from the service experience (Gronroos, 1984; Parasuraman et al., 1988, 1985). This is commonly referred to as the Performance-Minus-Expectations Gap, Gap 5 or “Gap Theory” (Figure 4.4) (Parasuraman et al., 1985).

The Gap Theory (Parasuraman et al., 1988, 1985) views Service Quality lying somewhere between the perceived and ideal level of service. This is best illustrated with the equation:

$$SQ_i = \sum_{j=1}^k (P_{ij} - E_{ij})$$

Where “SQ”=Service Quality, “P”=Perceived service, “E”=Expected service, “i” is the individual, “j” represents a particular attribute of the service, and “k” is the total number of attributes (Jain & Gupta, 2004). The relative ease of explaining this concept may have led to it being heavily adopted by industry (Asubonteng, McCleary, & Swan, 1996; Cronin, 2003; Dawson, Findlay, & Sparks, 2008).

A competitive school of thought adopts a performance-based approach (Brady et al., 2002; Cronin & Taylor, 1994, 1992). This led to the more conservative SERVPERF scale. The concept seeks to measure only the consumer’s perception of a service provider. It ignores the expectations portion of the equation. Cronin and Taylor see consumers’ expectations as irrelevant because they are formed prior to the service encounter (Cronin & Taylor, 1992).

Many of the measurements developed to examine output quality in the service sector have adopted a universal approach (Brady & Cronin, 2001; Cronin & Taylor, 1992; Gronroos, 1982; Parasuraman et al., 1988); however, of the various methods employed, the SERVQUAL scale appears to be the dominant instrument (Asubonteng et al., 1996; Cronin, 2003; Dawson et al., 2008) despite the popularity of criticism (Babakus & Boller, 1992; Carman, 1990; Cronin & Taylor, 1994, 1992). This research adopts the

perspective that many of these criticisms arise from the universal application of Service Quality metrics (Dabholker, Thorp, & Rentz, 1996) and argues for a more industry specific approach. Furthermore, many of the popular Service Quality metrics in practise today are highly subjective. This makes them incomparable and of little value to the consumer. However, greater detail of this argument first mandates an explanation of current Service Quality models and major academic schools that encompass Service Quality theory.

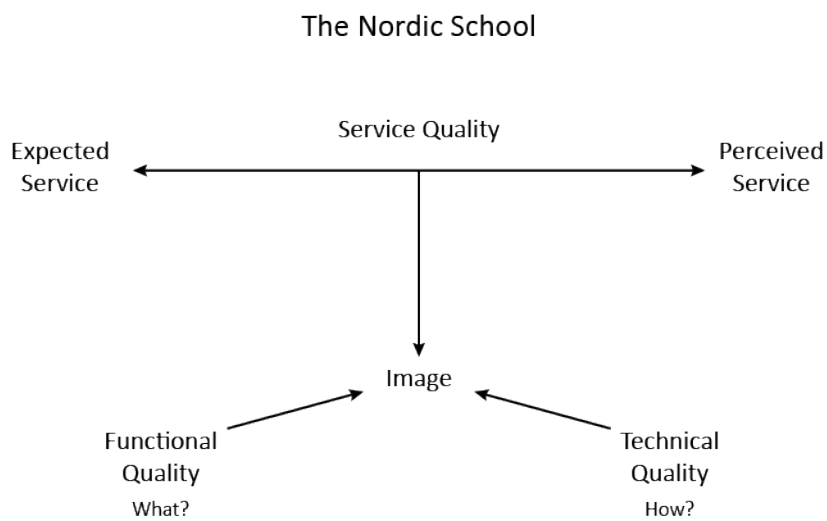


Figure 4.3 - The Nordic School (Grönroos, 1984)

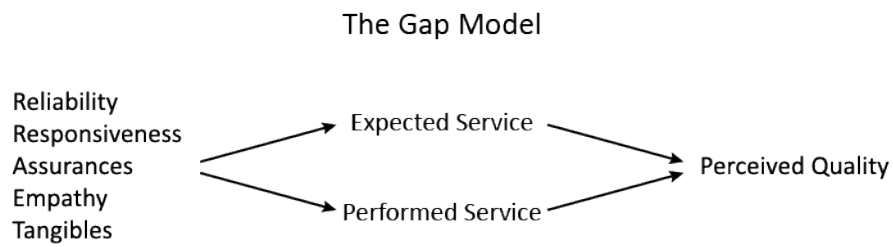


Figure 4.4 - The Gap Model (Parasurman, Zeithaml and Berry, 1985)

#### 4.4 The Nordic School In-Depth

Christian Grönroos introduced the importance of Perceived Service Quality (Gronroos, 1982, 1984). He determined that measurements of service outputs that employ a manufacturing philosophy (such as time of service, amount purchased or number of errors) are not practical. The Nordic model was developed to correct this by placing the emphasis of importance on the satisfaction the consumer receives from the exchange rather than the service output.

Based on the consumer's perception of the service encounter, this model considers three dimensions:

- *Functional Quality of Service:* How was the service provided? This dimension considers how the consumer receives the service. It is a highly subjective measurement and centres on the consumers' perception of the overall delivery of the service (contrary to the measurement of technical quality that may have an element of objective, empirical measurement).
- *Technical Quality of Service:* Concerned with the outcome of the exchange process. Technical quality is what the customer receives from the service. This is the utility received from consuming the service.

- *Image of Service Provider*: The customer's general perception of the service provider.

Technical Quality is the most straightforward component of Grönroos' Service Quality model (Gronroos, 1984). It is strictly a measurement of the service outputs. The doctor bandages the wounded knee, the mechanic replaces the belt, the airline transports the passenger to the destination, the attorney completes the lawsuit, or the tree surgeon removes the dead tree. These are merely outcomes. Technical Quality is concerned with what is delivered, not how the service is delivered. It is purely objective, without any qualitative elements. It can be measured in much the same way as manufacturing outputs: "Was the service delivered to the consumer, yes or no?"

Functional Quality is a much more difficult component to capture. The key component of Functional Quality is not *what* the consumer receives from the service, but *how* the service is delivered. Grönroos describes functional quality as "the way in which the technical quality is transferred to [the consumer] functionally" (Gronroos, 1984, p. 39). This comes, in part, from the facets of the service encounter that are not directly essential for the provision of the service, but those elements that contribute indirectly to the operation. Accessibility, appearance and attitudes of employees, cleanliness of the surrounding, and especially employee performance can have a strong impact on how the consumer perceives the service outcome. Some services may also have a self-service requirement as part of their operation (such as a buffet restaurant, equipment rental service or a fuel station). A greater acceptance of this role will translate into a greater appreciation of the service encounter. Lastly, other consumers engaging in the same encounter may have an effect on others' perception of the service encounter. Crowds, angry customers or long queues are likely to have a negative impact on the customer's perception of the service. Conversely, other happy customers that seem to be enjoying the service can have a very positive impact on Service Quality.



Before a global measurement of Service Quality can be determined, functional and technical quality must pass through a common modifier: image. The expectations of the consumer are greatly influenced by their views of the company. In the service sector, the only tool available for evaluating a company may be its corporate image. Corporate image is extremely important to the service provider. It is largely influenced through such avenues as tradition, ideology, and word of mouth. Marketing activities such as advertising, pricing and public relations can also have a strong influence on corporate image (Gronroos, 1984, p. 39).

These three dimensions make up the customers' perception of Service Quality. The question then becomes: Does the perception of Service Quality balance the scale between perceived and expected service? If yes, then acceptable service has been delivered. If the answer is no, then the perceived level of service delivered does not meet with the consumers' expectations.

The Nordic School has become the cornerstone of the Service Quality literature. The concept of Service Quality and the Performance-Minus-Expectations Gap resonates over 25 years later. This idea was expanded upon by the work of Parasuraman, Zeithaml and Berry; however, they ignore the technical quality side of the argument and focus solely on functional quality (Parasuraman et al., 1988, 1985). Within the literature, their work has become known as the "American School."

#### **4.5 The American School In-Depth**

The overall view of the Nordic school is that Service Quality is to be viewed in global terms (Brady & Cronin, 2001). Its cousin, the American School, seeks to characterise the service encounter itself. It contains some of the most popular literature in modern marketing and is where most of the debate over Service Quality resides.

### 4.5.1 SERVQUAL

Where the Nordic School views the factors of Service Quality as components of the overall model, the American School sees them as antecedents of customer satisfaction (Dabholkar et al., 2000). Therefore, customers evaluate the quality of a service experience by weighing their perceptions with their expectations. When perceptions meet or exceed expectations, customer satisfaction has occurred. This puts Service Quality in a very important place in the satisfaction equation. This idea led Berry, Parasurman and Zeithaml to attempt to identify the overall components of Service Quality (Parasuraman et al., 1994). Following a series of focus groups conducted with corporate executives of large service firms, they identified ten determinants of Service Quality: Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Understanding the Customer, and Tangibles<sup>13</sup>. These ten (which would later be reduced to five) would form the groundwork for modern Service Quality theory and become incorporated into a multitude of useful models.

In 1985, Parasurman, Zeithaml and Berry developed the famous Service Quality model based on Gap analysis (Parasuraman et al., 1985). This research identified five gaps in the relationship between customer and service provider. These gaps were:

- *Gap 1*: The difference between consumers' expectations and manager's perceptions of those expectations (misunderstanding consumers' expectations).
- *Gap 2*: The Difference between management's perceptions of customer's perceptions and service specifications (Improper service standards).
- *Gap 3*: The difference between Service Quality specifications and the service actually delivered (the service/performance gap).

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<sup>13</sup> However, the SERVQUAL literature is somewhat unspecific as to exactly *what* these dimensions are measuring. Parasurman, Zeithaml and Berry (1988) referred to it as "... similar in many ways to an attitude" (p.15). This ambiguity has remained unresolved within the SERVQUAL camp.

- *Gap 4*: The difference between service delivery and the communications to consumers about the service delivery (whether promises match delivery).
- *Gap 5*: The difference between consumers' expectations and perceptions of the service (this gap depends on the magnitude of the other four).

This research provided the groundwork for much of modern Service Quality theory. It illustrates the applicability of the disconfirmation paradigm and the use of difference scores in determining levels of Service Quality. Much of their further work would focus on Gap 5, the Performance-Minus-Expectations Gap. Following this was the construction of a reliable metric that could be used by academics and industry professionals. The resultant model was SERVQUAL (Parasuraman et al., 1988; Parasuraman, Zeithaml, & Berry, 1994). It reduced the interaction between consumer and provider into five dimensional terms of:

- *Reliability*: The ability to perform the promised service dependably and accurately.
- *Assurance*: The knowledge and courtesy of the employed and their ability to convey trust and confidence.
- *Tangibles*<sup>14</sup>: The appearance of physical facilities, equipment, personnel and communication materials.
- *Empathy*: The provider's ability to care for the customer and provide an individualised service.
- *Responsiveness*: The willingness to help customers and provide prompt service.

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<sup>14</sup> This term is somewhat confusing. Zeithaml and Bitner (2003, p.20), themselves, define Intangibility as one of the key characteristics of services. However, SERVQUAL states that Tangibles are an important part of Perceived Quality. In the SERVQUAL context, "Tangibles" refers to elements affecting the service delivery, not to the service itself. It would be more useful to name this dimension of SERVQUAL "Materials" or "Substantials" to avoid confusion.

SERVQUAL remains the most popular Service Quality measurement among practitioners (Asubonteng et al., 1996; Cronin, 2003; Dawson et al., 2008). This is largely due to its ease of adaptability and high predictive validity (Carrillat et al., 2007). The instrument consists of a 22-item scale that captures the consumer's perceptions of either perceived or expected Service Quality. Quality is then defined as something that exists within the gap between perceived and expected service. Some of SERVQUAL's initial attractiveness comes from its balance (though this is to be later contested). The instrument uses the 22-item scale twice. Once to capture respondents' perceptions of the service encounter, and again to measure expectations. A difference score can then be calculated (by subtracting perceptions from expectations) that is reflexive of perceived Service Quality.

Following some criticism (Cronin & Taylor, 1994; Cronin & Taylor, 1992), development of SERVQUAL went through several variants. The initial study involved a 97 item instrument submitted by a research firm in a large shopping mall in the Southwest of the United States (Berry et al., 1985). The survey consisted of two separate parts: the first part included 97 items pertaining to expectations. The second consisted of 97 items pertaining to perceptions. The first part gave an example service category and asked consumers to rate the level of performance they would expect from a service provider within the given category. These were spread across five industries: appliance repair and maintenance, retail banking, long-distance telephone, securities brokerage, and credit cards. The second part of the survey allowed consumers to consider a firm of their own choosing (ideally one that would be most familiar).

This initial scale possessed high reliability; however, proved to be somewhat cumbersome. This led Parasurman, Zeithaml and Berry (Parasuraman et al., 1985) to undertake several item purification stages. The first stage reduced the 97 item scale down to 34. The second compacted the instrument to 22 items. This round of purification revealed that the content of the final 22 items had negated some of the original ten dimensions. This left Parasurman, Zeithaml and Berry (Berry et al., 1988;

Parasuraman et al., 1985) with the five SERVQUAL dimensions that are still in use today: Tangibles, Reliability, Responsiveness, Assurance and Empathy.

SERVQUAL received further refinement in 1991, when the research compared customer assessments across three service industries: retail banking, insurance, and telephone repair (with the exception of retail banking, these service were different from the originally studied services). A nationally known company represented each industry. A survey was mailed to between 1,800 and 1,900 randomly chosen customers of each company. The survey yielded response rates from 17 to 25%. This gave a good foundation from which to re-examine SERVQUAL's reliability and validity (Parasuraman, Berry, & Zeithaml, 1991).

The resultant SERVQUAL still contained the 44 items. However, several of these items had been reworded to remove possible bias. Some of the items that had unusually high statistical means were found to contain non-normative expressions, and were found to contribute to bias largely through respondent confusion. For example, the phrase "Telephone companies *should* [italics mine] keep their records accurately," was reworded as: "Excellent telephone companies will insist on error free records." In total six of the 22 items were found to contain negative wording, all of which were found in the Responsiveness and Empathy dimensions (Parasuraman, Berry, et al., 1991, p. 42). Re-wording of these phrases completed SERVQUAL's evolution and left researchers and practitioners with the instrument that is still in use 20 years later.

#### **4.5.2 Criticisms of SERVQUAL**

Despite its popularity, many facets of SERVQUAL have experienced on-going criticism. Critique has been made concerning almost every facet of the SERVQUAL scale. These have been widespread and began almost as soon as SERVQUAL was published (Babakus & Boller, 1992; Buttle, 1996; Carman, 1990; Cronin & Taylor, 1992). The strongest of these criticisms are focused on the use of difference scores, dimensionality,

predictive validity, and the length of the survey (Babakus & Boller, 1992; Carman, 1990; Cronin & Taylor, 1992; Jain & Gupta, 2004; Teas, 1993).

The first of such objections centres on Parasurman, Zeithaml and Berry's disinformation paradigm (Parasuraman et al., 1988, 1985). Many of SERVQUAL's opponents claim that difference scores do not offer an accurate picture of Service Quality. Teas identifies that different combinations of Perceived values and Expected values could each yield the same difference score (for example,  $P=3, E=4$  yields a score of -1 as well does  $P=2, E=5$ ) (Teas, 1993). This has led many researchers to remove the expectation component of the disconfirmation paradigm and only focus on customer perceptions (Babakus & Boller, 1992; Cronin & Taylor, 1994, 1992). Parasurman, Zeithaml and Berry defend the use of expectations; however, their supporting research is based wholly on a series of qualitative focus groups while the opposition tends to focus on more quantitative methodologies (Parasuraman, Berry, et al., 1991, 1988, 1985).

One major objection to SERVQUAL lies with its theoretical definition. Parasurman, Zeithaml and Berry seem to avoid the issue of clearly defining constructs of Service Quality terminology, in particular the definition of Customer Satisfaction (Parasuraman, Berry, et al., 1991; Parasuraman et al., 1988, 1985; Parasuraman, Zeithaml, et al., 1991). Cronin and Taylor claim that Customer Satisfaction should be firmly defined as an attitude. They state the "SERVQUAL scale is measuring neither Service Quality nor Customer Satisfaction" (Cronin and Taylor, 1994, p.126).

Furthermore, there is a complaint that Parasurman, Zeithaml and Berry do not take into account research from other scientific disciplines such as Economics, Statistics and Psychology (Buttle, 1996). Andersson claims "Parasurman, Zeithaml and Berry abandon the principle of scientific continuity and deduction" (Andersson, 1992, p. 41). However, Parasurman, Zeithaml and Berry defended their position claiming that

their theory is “firmly rooted within the previous Service Quality research” without offering an in-depth explanation (Parasuraman et al., 1994, p. 112).

There has also been some criticism of the statistical techniques used in evaluating SERVQUAL. The SERVQUAL scale measures responses on a seven point, Likert-type scale. Likert scales collect ordinal data. This lends itself to lower-order descriptive statistics and cross tabulations. However, in both their 1985 and 1988 articles, Parasurman, Zeithaml and Berry use factor analysis. This is a high order statistical process and is best suited for interval/ratio level data (Stevens, 2012). This may have confounded some of Parasurman, Zeithaml and Berry’s results and contributed to higher than normal values of reliability and validity (Buttle, 1996)<sup>15</sup>.

There has been further criticism that SERVQUAL adopts a process orientation rather than an outcome based perspective (Cronin & Taylor, 1992; Richard & Allaway, 1993). This means that the SERVQUAL items are oriented around the service process instead of focusing on the outcomes. In an attempt to correct this discrepancy, Richard and Allaway used a modified SERVQUAL scale to examine Service Quality within the Domino’s Pizza chain (Richard & Allaway, 1993). The original 22 items were augmented with an additional six items that attempted to capture outcomes. The original 22 items only accounted for 45% of the variance in consumer choice. Adding the six outcome oriented items brought that up to 71.5% ( $p \leq 0.001$ ). This resulted in increased validity of the scale (Richard & Allaway, 1993).

Finally, the most pervasive criticism of SERVQUAL concerns its dimensionality (Babakus & Boller, 1992; Brady & Cronin, 2001; Buttle, 1996; Carman, 1990; Gagliano & Hathcote, 1994). These criticisms typically concentrate on the specific number of dimensions that the scale employs. To date there has been no conclusive argument as

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<sup>15</sup> While Buttle (1996) does make a clear argument against using factor analysis, this technique often used to evaluate ordinal data in the Social Sciences and has been used to evaluate other Service Quality scales (for example: Brady and Cronin, 2001; Cronin and Taylor, 1992).

to the precise number of dimensions appropriate for a global measurement of Service Quality. What has appeared is an apparent need to modify the SERVQUAL dimensions to fit specific industries (Brady & Cronin, 2001; Buttle, 1996; Carman, 1990; Gagliano & Hathcote, 1994; Richard & Allaway, 1993).

In spite of this criticism, SERVQUAL retains its dominance as the preferred metric for management measuring Service Quality, most likely due to its ease of comprehension by the practical community (Dawson et al., 2008). Management seems to be attracted to concepts such as the SERVQUAL difference score for their ease of calculation and understanding (Ahmad, Awan, Raouf, & Sparks, 2009). While the scientific community continues to criticise its construction and implementation, management seems to take a “good enough” approach to the implementation of such metrics (Asubonteng et al., 1996).

#### **4.5.3 SERVPERF**

While SERVQUAL seeks to conceptualise quality as a relationship between perceptions and expectations, its cousin SERVPERF takes a purely performance based approach (Cronin & Taylor, 1992). The rationale comes from the premise that satisfaction is an antecedent of perceived Service Quality (Bitner, 1990; Bolton & Drew, 1991).

SERVPERF sought to clarify some issues cover the definition of satisfaction. Cronin and Taylor maintain that the previous work by Parasurman, Zeithaml and Berry fails to clearly establish satisfaction as an attitude (Cronin & Taylor, 1994). Doing so might have invalidated the disconfirmation paradigm, based on research within the attitude and satisfaction literature (Oliver, 1980, 2009). Oliver illustrates that Service Quality and Customer Satisfaction are distinct terms (Oliver, 1980, 2009). Satisfaction is an attitude resulting from repeated interactions with a service firm. Thus, satisfaction can become a component of future Service Quality judgements by the consumer (Oliver, 2009).



Cronin and Taylor simplify the measurement of Service Quality by examining only the performance side of the equation (Cronin & Taylor, 1992). They found evidence to support their theory in the work of Churchill and Surprenant and decided that performance alone was enough to determine the consumer's perception of Service Quality (Churchill & Surprenant, 1982). Capturing consumer expectations was unnecessary and cumbersome.

When examining the dimensionality of SERVQUAL, Cronin and Taylor felt that the five SERVQUAL dimensions were inadequate for a performance only measurement and needed to be redefined (Cronin & Taylor, 1992). Using confirmatory factor analysis (LISREL VII) they determined that SERVQUAL did not have consistent factor loading patterns across the five dimensions (Cronin & Taylor, 1992). This led them to believe that SERVQUAL was lacking in construct validity (the extent to which the various constructs of the model support the hypothesis) and felt that a performance only measurement would help alleviate many of the problems. This led directly to the development of the SERVPERF scale.

The SERVPERF instrument simplifies the overall number of items required to measure Service Quality from 44 to 22 (Cronin & Taylor, 1992). This puts SERVPERF ahead in terms of overall efficiency (Brady, Cronin & Brand, 2002; Cronin & Taylor, 1992). Additionally, by only measuring performance SERVPERF allows for comparability across firms within an industry (Brady et al., 2002) and research has demonstrated that the SERVPERF scale lends itself to a much more global application than SERVQUAL (Babakus & Boller, 1992; Buttle, 1996; Carrillat et al., 2007; Jain & Gupta, 2004).

SERVPERF contributed to the Service Quality literature by offering a more streamlined measurement of Service Quality and strengthening of the link between Service Quality, Customer Satisfaction, and Consumer Purchase Intentions (Brady et al., 2002; Cronin & Taylor, 1992). The theoretical basis for this construct had been

emerging within the Service Quality literature, but was yet unresolved. Parasurman, Zeithaml and Berry had conceptualised Service Quality as an antecedent of satisfaction, while Bitner and Bolton and Drew viewed satisfaction as an outcome of Service Quality (Bitner, 1990; Bolton & Drew, 1991; Parasuraman, Berry, et al., 1991; Parasuraman et al., 1988). It was Cronin and Taylor who first applied the theory to empirical science and they discovered that Service Quality was a strong driver of Customer Satisfaction, and satisfaction greatly affected purchase intentions; however, there was no direct relationship between Service Quality and purchase intentions (Cronin & Taylor, 1992). If it were satisfaction that was the sole driver of purchase intentions, and not Service Quality, this meant that Service Quality must be an antecedent of satisfaction (Cronin & Taylor, 1992). Therefore, a performance-only measurement of Service Quality should be a better predictor of Customer Satisfaction than the Gap Model (Anderson & Sullivan, 1993; Brady et al., 2002).

The superiority of performance-only metrics is recognised by the academic community (Babakus & Boller, 1992; Boulding, Kalra, Staelin, & Zeithaml, 1993; Brady et al., 2002). Even Valarie Zeithaml recognised the empirical superiority of a performance only measurement of Service Quality over that of the gap theory (Boulding et al., 1993). Along with being a much more efficient instrument, SERVPERF has been found to have greater convergent and discriminant validity than SERVQUAL (Jain & Gupta, 2004). Without the need to calculate consumer's expectations, SERVPERF also allows managers to create a comparative study of Service Quality with a firm's competitors (Cronin & Taylor, 1994).

The advantages of a performance-only measurement of Service Quality does not necessitate disposal of SERVQUAL as a practical instrument (Carrillat et al., 2007; Jain & Gupta, 2004). SERVPERF is simply another choice managers have when trying to evaluate service outputs. However, while SERVQUAL may need extensive modification in order to fit the intended context SERVPERF may need little or no adaptation (Carrillat et al., 2007). This, along with being comparable and less cumbersome, should

make SERVPERF more attractive to some managers. However, despite these advantages SERVQUAL still appears to be the practical instrument of choice (Dawson et al., 2008).

#### **4.5.4 SERVPEX**

In early 2001, Robledo attempted to resolve the issue of the best method of measuring Service Quality (Robledo, 2001). He affirmed the five factor model of Parasurman, Zeithaml and Berry; however, he wanted to investigate the relationship between five various models of Service Quality: SERVQUAL, Weighted SERVQUAL, SERVPERF, Weighted SERVPERF and his own model, SERVPEX. Robledo (2001) thought, unlike Cronin and Taylor (1992), that expectations were an important factor in examining Service Quality. Therefore, the Gap model was relevant and Robledo's contribution was found in the measurement of this gap.

Parasurman, Zeithaml and Berry (1985) measured the disconfirmation paradigm by taking the difference between two 22 item instruments. Robledo took the novel approach of measuring performance and expectations at the same time (Robledo, 2001). This resulted in the scale he refers to as SERVPEX. This scale attempts to measure performance and expectations simultaneously utilising a similar scale to SERVPERF and SERVQUAL. The key difference with SERVPEX is the points of the scale range from "Much worse than expected" to "Much better than expected", whereas in the other instruments they range from "Strongly Agree" to "Strongly Disagree." Robledo feels this is sufficient to account for the inclusion of both performance and expectation measurements within the same question. Furthermore, he found that this scale is statistically superior to existing measurements of Service Quality specifically when examining the airline industry.

Robledo did not intend for SERVPEX to be an industry specific instrument, but rather a general instrument (based on the SERVQUAL framework) that could be modified to fit the airline industry (Robledo, 2001). SERVPEX has also seen no further

adoption from academics or practitioners. This may largely be because of the complexity of measuring two different values within the same item (Seth, Deshmukh, & Vrat, 2005). Doing so could be likened to measuring both time of day and temperature with an analogue wristwatch. It may accurately measure time; however, one could only use it to guess the temperature (presumably by touching the metal to see if is cool or warm).

#### **4.5.5 Brady and Cronin's Hierarchical Model (HiQUAL)**

In an effort to converge the two major schools of thought, Brady and Cronin developed a hierarchical model of Service Quality (hereafter referred to as HiQUAL) (Brady & Cronin, 2001). HiQUAL incorporates elements from the Nordic and American Schools and, like SERVPERF, it is a performance-only measurement of Service Quality. The difference is in its factor structure and the number of dimensions used to measure Service Quality. Brady and Cronin propose that Service Quality contains three primary dimensions: Interaction Quality, Physical Environment, and Outcome Quality (instead of the five used in most other Service Quality metrics). This is complementary to Rust and Oliver's model containing service product (technical quality), service delivery (functional quality) and the service environment which was based on Grönroos' model (Gronroos, 1984; Rust & Oliver, 1994). Brady and Cronin felt that the Nordic models, as well as the five dimensional concepts in SERVQUAL, were both relevant constructs of Service Quality (Brady & Cronin, 2001). They attempted to combine the two schools into a hierarchical model (Figure 4.5). This model is based on Rust and Oliver's view that Service Quality is a function of customer/employee interactions, or the service environment and the outcome (Bitner, 1990; Christian Grönroos, 1982).

Brady and Cronin agreed with some of the five-factor structure of Parasurman, Zeithaml and Berry's SERVQUAL model (Brady & Cronin, 2001). However, they felt that SERVQUAL was not descriptive as to *what* elements of Service Quality should be reliable, empathetic, tangible or assured. Brady and Cronin use three of SERVQUAL's

five dimensions (Reliability, Responsiveness and Empathy) to support their nine sub dimensions (Attitude, Behaviour, Expertise, Ambient Conditions, Design, Social Factors, Waiting Time, Tangibles, and Valence) that were derived from a series of qualitative interviews (Brady & Cronin, 2001). The nine sub-dimensions define what should be reliable, responsive, and empathetic. The three SERVQUAL dimensions were not direct determinants of Service Quality; they simply describe its nine sub-dimensions. This is visible in their descriptive model (Figure 4.5)

Brady and Cronin tested this third-order factor model using modern structural equation modelling techniques (Brady & Cronin, 2001). However; third-order models had, until that time, not been tested in such a manner (Brady & Cronin, 2001). To validate their methods they complemented their third-order path analysis with a technique proposed by Dabholkar, Thorpe and Rentz that examines each level individually (Dabholkar, Thorpe, & Rentz, 1995). All of the proposed paths of the model were supported during testing with one additional path linking the variables Outcome Quality and Social Factors (Brady & Cronin, 2001).

With HiQUAL, Brady and Cronin (2001) had succeeded in linking two competing schools of thought as well as alleviating “the current stalemate” (p.44) within the Service Quality literature (Brady & Cronin, 2001). The instrument itself contains only 35 items. This makes it somewhat lighter than the original SERVQUAL and combined with strong predictive validity, should make this model highly attractive to both researchers as well as practitioners. Furthermore, the increased dimensionality of the HiQUAL model could make it a more accurate measurement of Service Quality. Unfortunately, to date, no comparative study has been undertaken.

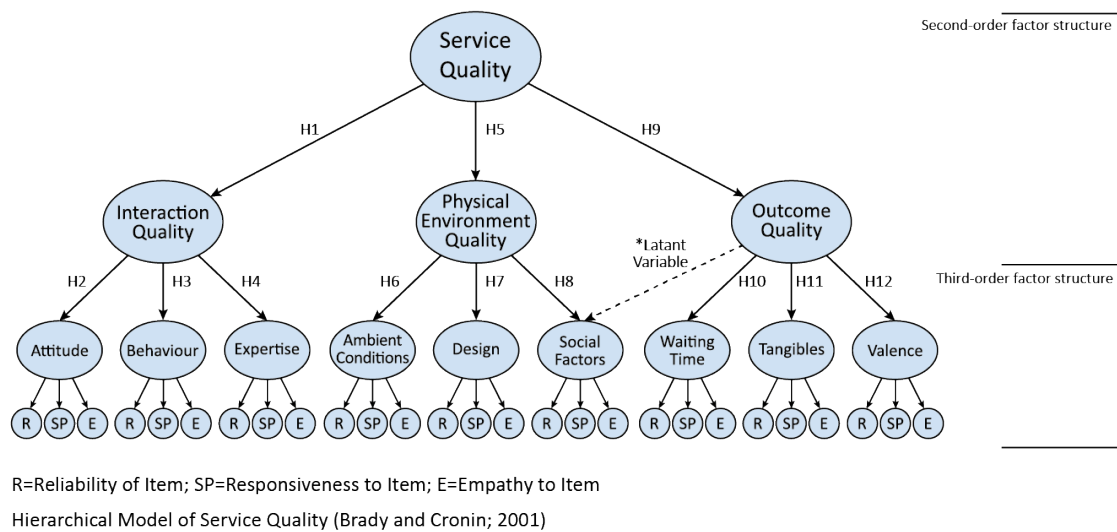


Figure 4.5. The HiQUAL Model

## 4.6 Other Models

There have been other significant developments within the Service Quality literature; however, most of these have received little attention. Some of these theories seem to belong with the American or Nordic schools exclusively, some attempt to merge these two schools, and others exist independently. These theories are included to highlight the immense breadth of Service Quality research and the lack of further development of these theories illustrates the overall shallowness of the Service Quality literature.

### 4.6.1 Attribute Service Quality Model

John Haywood-Farmer developed the Attribute Service Quality Model, illustrated in Figure 4.6 (Haywood-Farmer, 1988). Building on the disconfirmation paradigm, he identifies three basic service components: physical facilities and processes, behavioural aspects and professional judgement. The physical process and components includes all the features of the physical facilities, the facilitating goods that are sold as part of the service, and the process and process by which the service is delivered and consumed.

Behaviour is much further reaching than an employee's attitude. It includes grooming, timeliness and communicability as well as other attitudinal aspects. Professional judgement incorporates an employee's ability to give advice, function autonomously, diagnose problems and act with a sense of knowledge and discretion. Each of these attributes is interrelated. For the service firm to be successful a balance must be achieved between the three and too much focus on one attribute could lead to service failure.

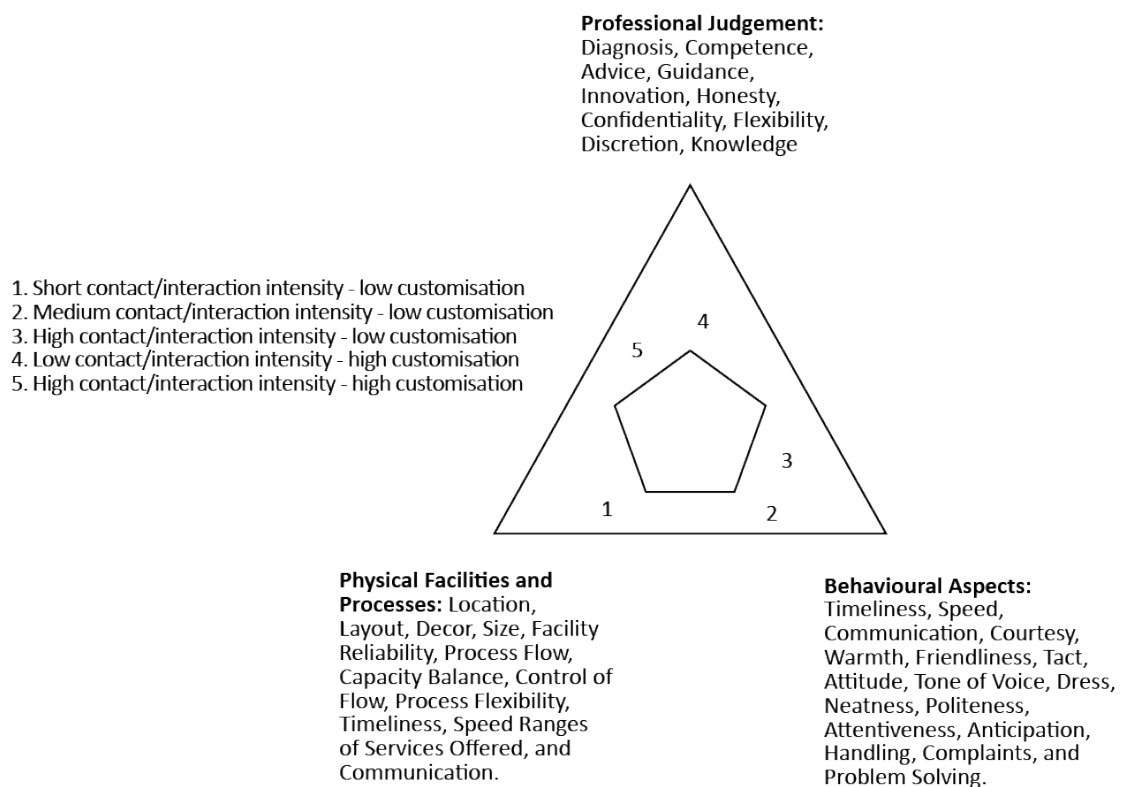


Figure 4.6. Attribute Service Quality Model (Haywood-Farmer, 1988)

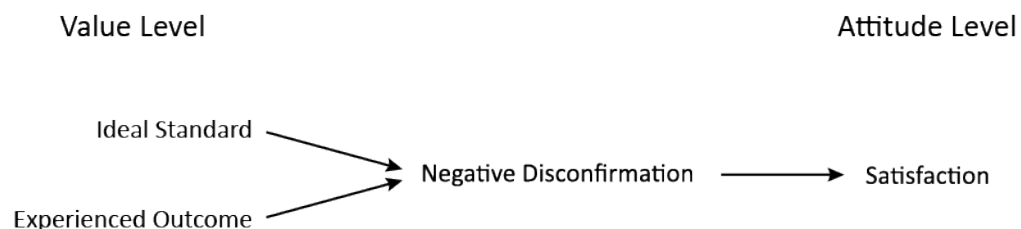
#### 4.6.2 Synthesised Service Model

The Synthesised Model of Service Quality is a theoretical extension of Gap Five from a managerial perspective (Brogowicz, Delene, & Lyth, 1990). This theory takes into account the possibility of a customer's preconceptions of a firm's Service Quality that

are learned through word of mouth, advertising or marketing communications. This model identified three overall factors affecting Service Quality from a managerial perspective: company image, external influences and traditional marketing practises. In an apparent attempt to merge the Nordic and American schools, the Synthesised Model of Service Quality determines that each of these factors can influence expectations of a firm's Technical or Functional Quality.

#### 4.6.3 Ideal Value Model of Service Quality

The Ideal Value Model of Service Quality, depicted in Figure 4.7, takes a more psychological approach to modelling Service Quality (Mattsson, 1992). This theory attempts to further examine the expectations side of the disconfirmation paradigm. Most of the American School sees expectations as a belief toward having desired attributes as a standard of evaluation; however Mattsson felt this was much more complex and felt that more attention needed to be given to the cognitive processes that form and change consumers' service concepts (Mattsson, 1992).



(Mattsson; 1992)

Figure 4.7. The Ideal Value Model of Service Quality



#### **4.6.4 EP Framework and the Normed Quality Models**

As a critic of SERVQUAL, Teas illustrated that measuring Service Quality had several inherent issues (Teas, 1993). Teas felt that SERVQUAL lacked a clear definition, that there was no justification for the measurement of consumer's expectations, the usefulness of the probability specification in difference scores was questionable and the link between Service Quality and Consumer Satisfaction was ill-defined (Teas, 1993). These observations led to the development of two theories: The Evaluated Performance (EP) Framework and the Normed Quality Model. These models do not focus on consumers' expectations; rather they attempt to explain Service Quality as being a relationship of actual service performance to the customer's ideal service performance.

#### **4.6.5 IT-Specific Models**

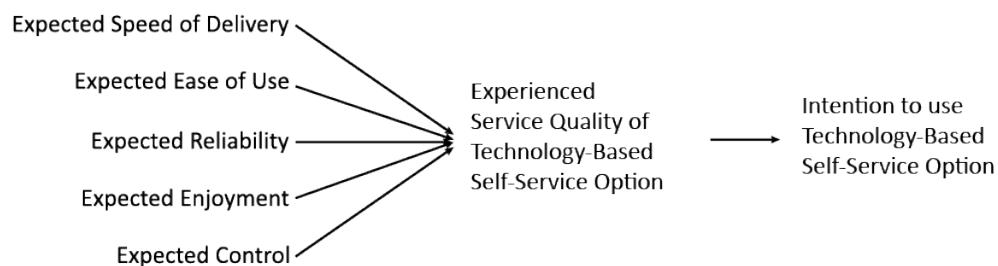
Improvements in technology required a rethinking of the role of Information Technology (IT) in service delivery (Berkley & Gupta, 1994). Before the IT Alignment Model, IT was seen as a way of streamlining production efficiency (Berkley & Gupta, 1994). Berkley and Gupta determined that IT systems can play an important role in firms' service strategies (Berkley & Gupta, 1994). This study provides an illustration of the depth to which successful firms must apply a service dominant logic. This concept was expanded by researching the key factors that affect e-commerce firms. The IT-Based Model (Zhu, Wymer, & Chen, 2002) and Model of E-Service Quality (Santos, 2003) together formed a more comprehensive picture of internet based Service Quality and further application has been under an industry-specific context in the banking sector (Broderick & Vachirapornpuk, 2002).

#### **4.6.6 The Attribute and Overall Effect Models**

Expanding on this research into technology based firms, the Attribute and Overall Effect Models (Figure 4.8) are based on what consumers expect from self-service firms

(Dabholkar, 1996). Like Mattsson, Dabholkar based the Attribute Model on cognitive decision making processes (Dabholkar, 1996; Mattsson, 1992). This model determines that consumers use a compensatory process to evaluate attributes associated with the self-service option in order to form expectations of Service Quality. Likewise, the Overall Affect Model uses an effectual approach to decision making. This incorporates customers' feeling and predispositions when forming expectations of Self-Service Quality. Therefore, Expected Quality influences consumers' intentions to use technology based self-service options. These ideas were later expanded to include consumer traits relevant to technology based self-service firms (Dabholkar & Bagozzi, 2002); these traits were identified as Inherent, Novelty Seeking and Self-Efficacy with respect to technology, self-consciousness and the need for interaction with an employee. These traits can influence the consumer's assessment of the technology based self-service experience.

#### Attribute Based Model



#### Overall Affect Model



Figure 4.8. Attribute and Overall Effect Models of Service Quality (Dabholkar, 1996)

#### 4.6.7 Model of Service Quality and Satisfaction

In order to further identify the relationship between Service Quality and Customer Satisfaction, Spreng and Mackoy re-examined Oliver's Satisfaction Model (Oliver, 1993; Spreng & Mackoy, 1996). From this they developed the Model of Perceived Service Quality and Satisfaction, as illustrated in Figure 4.9 (Spreng & Mackoy, 1996). This model identifies four variables (Expectations, Perceived Performance Desires, Desired Congruence and Expectation Disconfirmation) and their relationship to overall Service Quality and Customer Satisfaction. These variables are measured through a series of ten attributes of advising: convenience of making an appointment, friendliness of staff, advisor attentiveness, advisor provided accurate information, the knowledge of the advisor, consistent advice, advisor helped with long-range planning, advisor helped in choosing the right courses for career, advisor was interested in customers' personal life, and offices were professional.

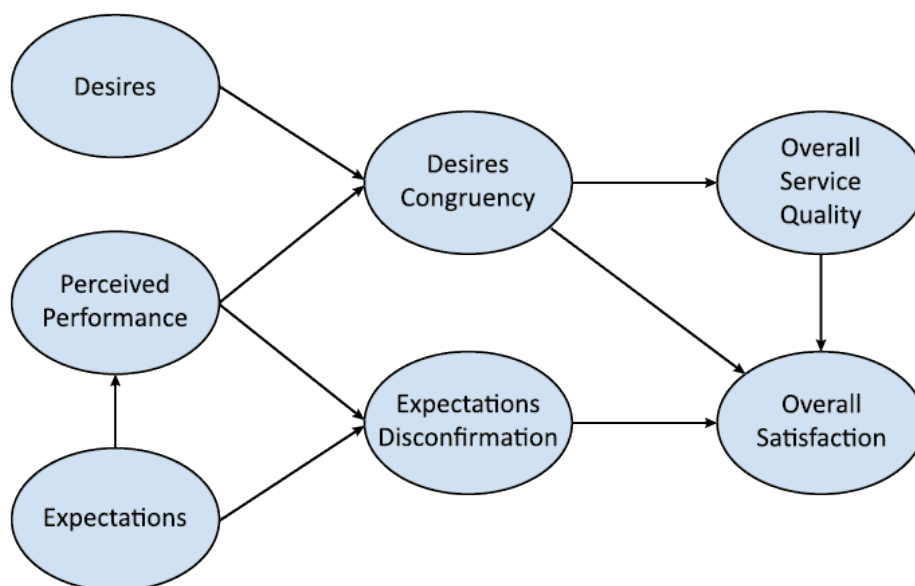


Figure 4.9. Model of Service Quality and Satisfaction (Spreng and Mackoy, 1996)

#### 4.6.8 P-C-P Model of Service Attributes

While examining service outputs, Philip and Hazlett developed the P-C-P Model of Service Attributes depicted in Figure 4.10 (Philip & Hazlett, 1997). They determined that the popular SERVQUAL scale did not take into account service deliverables, and sought to develop a model with these service outputs at its core. Their model is the first Service Quality model to have a hierarchical structure. This consists of three Service Quality attributes represented in ascending order: Pivotal Attributes, Core Attributes and Peripheral Attributes. Pivotal Attributes are the most important of the three and exerts the greatest influence on satisfaction. These attributes are the outputs of the service encounter and encompass the very reason the customer decided to approach a particular organisation. Core Attributes are the people, process and structure with which the consumer must interact in order to receive the Pivotal Attributes. Finally, the Peripheral Attributes are the incidental extras or frills designed to “make the whole experience a delight” (Philip & Hazlett, 1997, p. 280).

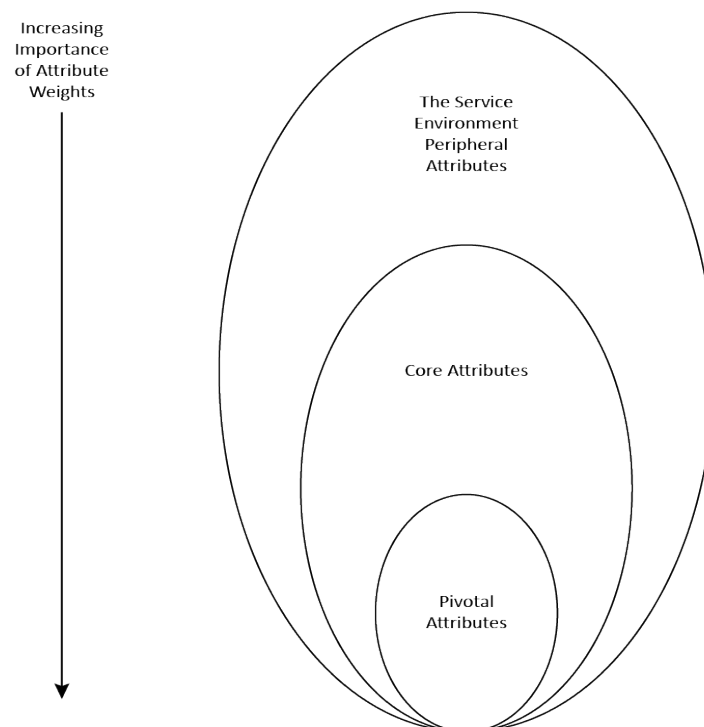


Figure 4.10. P-C-P Attribute Model (Phillip and Hazlett, 1997)

#### **4.6.9 Retail Service Quality and Perceived Value Models**

Expanding on the relationship between Technical and Functional Quality, the Retail Service Quality and Perceived Value Models examines the role of Value and its influence on Service Quality and consumer purchase behaviour (Sweeney, Soutar, & Johnson, 1997). In this model values are expressed as a comparison between customer's benefits and sacrifices. The Retail Service Quality Model illustrates that both functional and technical quality influences customers' value perceptions (along with product quality and price perceptions). The Perceived Value model demonstrates that Functional Quality also directly influences consumers' willingness to buy as well as influencing Technical Quality, which in turn drives product quality perceptions. During their analysis, Sweeney, Soutar and Johnson actually modified the Perceived Value model (determining that it was superior to the Retail Service Model) to allow Technical Quality to directly influence Perceived Value. This led them to conclude that consumers' perceptions of Service Quality during the service encounter were more influential in their willingness to buy that product (Sweeney et al., 1997).

#### **4.6.10 Service Quality, Customer Value and Customer Satisfaction Model**

The Service Quality, Customer Value and Customer Satisfaction Model was developed in an attempt to resolve some of the debate between the relationship of Customer Satisfaction and Service Quality (Oh, 1999). This holistic model attempted to integrate the three factors (Service Quality, Customer Satisfaction and Value) by focusing on the post-purchase process. There was some evidence that Customer Value plays a significant role in customers' post-purchase decision making. Furthermore, Customer Value was shown to be an immediate antecedent to Customer Satisfaction and consumer repurchase intentions. One of the most interesting items to come from this model was the overall influence of Perceived Price. The research discovered that

Perceived Price had a negative relationship with Perceived Customer Value, but most importantly it carried no significant relationship with Service Quality (Oh, 1999).

This is interesting in respect to the context of this thesis. The LCCs attempt to provide the lowest-possible price is a key part of their competitive strategy. This may separate price from Service Quality in the mind of the consumer, making it possible for airlines to compete on both price and Service Quality simultaneously.

#### 4.6.11 Antecedents and Mediator Model

The Antecedents and Mediator Model (Figure 4.11) was conceived by Dabholkar, Shepherd and Thorpe to provide a better understanding of the conceptual issues related to Service Quality (Dabholkar et al., 2000). They examined the antecedents, consequences and mediators of Service Quality. The study revealed four antecedents to Service Quality (Reliability, Personal Attention, Comfort and Features), which itself functions as a mediator between these variables and Customer Satisfaction. This theory provides further support for idea that Service Quality is an antecedent to Customer Satisfaction and consumers' behavioural intentions.

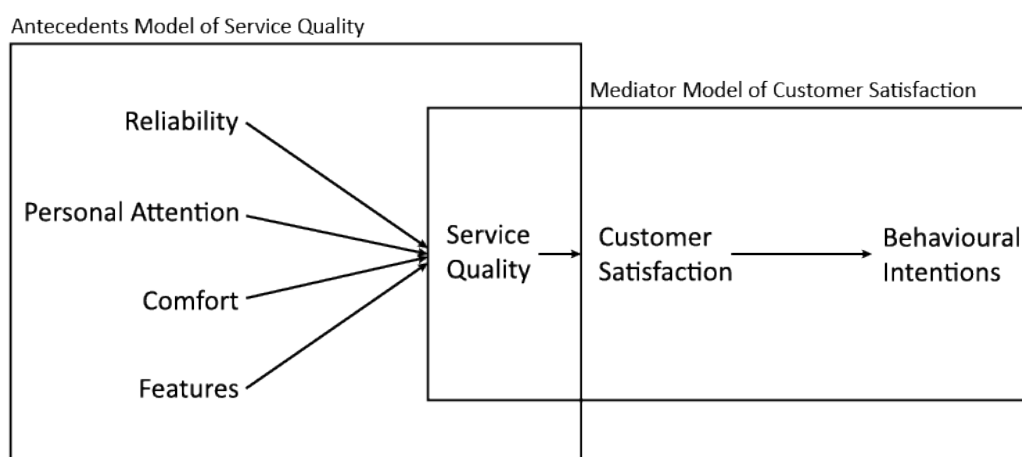


Figure 4.11. Antecedents and Mediator Model (Dabholkar, Shepard and Thorpe, 2000)

## 4.7 An Indexing Approach to Service Quality Measurement

All of the theories and metrics discussed so far within Chapter Four have a common philosophical ontology: these theories all view Service Quality as a construct that resides wholly within the mind of the consumer. The indexing approach views Service Quality as something that exists independently within nature. This represents a shift in philosophical approach from subjective to objective measurement. While there has been very little research into an objective measurement of Service Quality, there has been some development within the Customer Satisfaction Literature.

### 4.7.1 Customer Satisfaction Indexes

The American Customer Satisfaction Barometer (ACSI) was the first approach to indexing Customer Satisfaction in the US (Figure 4.12). Unlike the American School of Service Quality theory, the ACSI views Service Quality and Perceived Value as antecedents of overall Customer Satisfaction (Fornell et al., 1996). Almost every developed nation now utilises some type of National Consumer Satisfaction Index. These indexes are all theoretically similar to the ACSI in respect to their view of the relationship between Service Quality and Satisfaction (Johnson et al., 2001). The ACSI traditionally used national surveys to gather data; however, many newer adaptations of this concept are beginning to take advantage of secondary data from government sources. By using secondary data, reliability is increased by negating the need for customer surveys. The indexing approach has had some success in measuring Customer Satisfaction at the national level in Sweden with the National Customer Satisfaction Barometer (Fornell, 1992). The popularity of this approach to Customer Satisfaction was soon adopted in the US with the advent of The American Customer Satisfaction Barometer (Fornell et al., 1996).

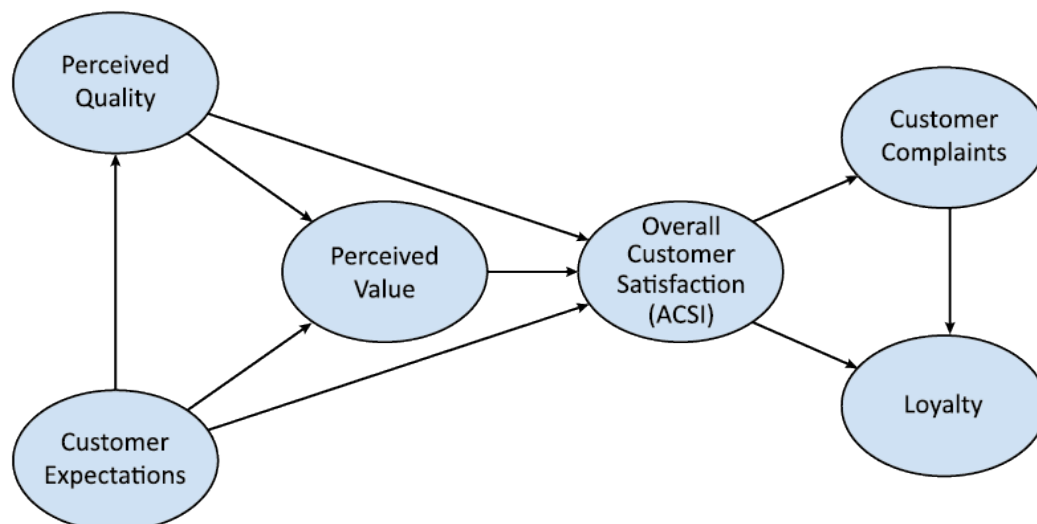


Figure 4.12 - The American Customer Satisfaction Barometer (ACSI) (Fornell, Anderson, Cha and Bryant, 1996)

#### 4.7.2 The Airline Quality Rating

While all of the major Service Quality metrics have unique advantages, they each share one singular disadvantage: accessibility to the consumer. Each in its own right may be attractive to managers, but survey data collection can be cumbersome and the results can often be difficult for the layperson to interpret. This dilemma led researchers at Wichita State University to take a more empirical approach to Service Quality measurements (Bowen et al., 1991; Bowen, Headley, & Luedtke, 1992). Their Airline Quality Report (AQR) looks at Service Quality from a purely quantitative perspective. It compiles publicly available airline industry data into an index that is accessible to the consumer, generalisable across all firms within the industry, and linearly comparable.

The theoretical constructs of the AQR are rooted in SERVQUAL. Bowen, Headley, and Luedtke utilise the five dimensions of SERVQUAL to determine what elements of the airline experience consumers value most (Bowen & Headley, 2007; Bowen et al., 1991, 1992; Headley & Bowen, 1997). This conforms to Brady and Cronin's (2001) attempt to add values to the five dimensions of Service Quality. Bowen,



Headley, and Luedtke do this through completely subjective means (Bowen et al., 1991, 1992). After compiling a list of airline industry factors that relate to SERVQUAL's five dimensions, they assigned two conditions to each variable. Firstly, data relating to the variable had to be readily available from government sources. Secondly, the factor had to be relevant to the consumers' value of Service Quality. To test the second condition, 65 representatives were interviewed from most of the major airlines, air travel experts, FAA representatives, academic researchers, airline manufacturing and support firms, and individual consumers (Bowen et al., 1991, p. 8). This allowed them to reduce the original list of 80 factors, down to 19 final variables.

The AQR uses public data collected by the US Department of Transportation (DOT), the National Transportation and Safety Board (NTSB), and 10-K reports for the major air carriers whose base of operations was within the United States (major air carriers are defined as any air carrier with operating revenues in excess of one billion dollars for a given fiscal year). The instrument uses weighted averages to determine an overall Airline Quality Rating. The weights (as determined from the interview process) were assigned either positive or negative values which relate to the direction of impact the factor has on Service Quality, with positive values given to factors that may increase quality and negative values given to factors that may detract from quality (Table 4.1).

Table 4.1

*AQR Factors (1991)*

Factor	Weight	Value (+ or -)
Average Age of Fleet	5.85	-
Number of Aircraft	4.54	+
On-Time Performance	8.63	+
Load Factor	6.98	-
Pilot Deviations	8.03	-
Number of Accidents	8.38	-
Frequent Flyer Awards	7.35	-
Flight Problem Complaints	8.05	-
Overbooking Complaints	8.03	-
Mishandled Baggage Complaints	7.92	-
Fares Complaints	7.60	-
Customer Service Complaints	7.20	-
Refund complaints	7.32	-
Ticketing/Boarding Complaints	7.08	-
Advertising Complaints	6.82	-
Credit Complaints	5.94	-
Other Complaints	7.34	-
Financial Stability	6.52	+
Average Yields (cost per seat mile)	4.49	-

The AQR is designed to provide a quantifiable and comparable instrument with which to measure Service Quality in the airline industry. The results of the AQR analysis are easily understood by the layperson, and provide a common metric with which to track quality over time. However; Bowen, Headley, and Luedtke clearly state that the AQR “does not take all aspects of quality into account and does not tell the

whole story”. It merely provides an “open source” instrument for observing quality within the airline industry (Bowen et al., 1991, p. 16).

While there has been little criticism of the AQR in the literature, questions may arise relating to the qualitative groundwork from which the AQR is supposedly constructed. Bowen, Headley, and Luedtke’s interviewed 65 airline industry “experts including representatives of most major airlines, air travel experts, FAA representatives, academic researchers, airline manufacturing and support firms, and individual consumers” Bowen et al., 1991, p. 9) in order to determine the factors involved in US Airline Service Quality. Following the initial qualitative interviews, they made no effort to implement a passenger survey using firm academic theory (such as a SERVPERF survey). Such a survey could have added much needed dimensionality to the study (Gardner, 2004).

Therefore, in 1992 Bowen, Headley, and Luedtke re-examined the constructs of the AQR (Bowen et al., 1992). They surveyed 766 airline customers to determine if their preferences were in-line with the earlier assumptions made by management. The results demonstrated no statistical difference between the “expert” opinions and the customer survey. To determine the validity of the AQR study Bowen, Headley, and Luedtke compared the results of the AQR to the current Zagat rating for US major airlines and found a high statistical correlation (Bowen et al., 1992).

The AQR possesses significant reliability coefficients (Cronbach’s Alpha = 0.87). This further solidifies the AQR’s factor loading and helps to alleviate criticism of the AQR methodological construction (Bowen et al., 1992). This is may be because of the AQR’s readily simple algebraic design:

$$(+8.63 \times OT) + (-8.03 \times DB) + (-7.92 \times MB) + (-7.17 \times CC) / (8.63 + 8.03 + 7.92 + 7.17)$$

This equation utilises the four major variables On-Time (OT), Denied Boarding (DB), Mishandled Baggage (MB) and Customer Complaints (CC), which the current generation of the AQR employs (Table 4.2) (Bowen & Headley, 2007). The Customer

Complaint score contains several sub-dimensions that make up the variable (Flight Problems, Oversales, Reservations, Ticketing, Boarding, Fares, Refunds, Baggage, Animals, Customer Service, Advertising, Disability, Discrimination and other). All other variables are measured directly. All required data is obtained from the US Department of Transportation's Air Travel Consumer Report, a monthly data-intensive publication.

Table 4.2

*AQR Factors (2007)*

Current AQR variables		
Criteria	Weight	Impact (+/-)
On-Time (OT)	8.63	(+)
Denied Boarding (DB)	8.03	(-)
Mishandled Baggage (MB)	7.92	(-)
Customer Complaints (CC)	7.17	(-)

Bowen, Headley, and Luedtke do not offer an in-depth explanation for the reasoning in choosing the SERVQUAL framework for the AQR (Bowen & Headley, 2007; Bowen et al., 1991, 1992). Although SERVPERF may have been more relevant to the AQR's needs because it is a performance-only measurement (Carrillat et al., 2007), its introduction did not occur for another year (and Brady and Cronin's model was not introduced for another 10 years); SERVQUAL was the most viable solution at that time. Furthermore, Bowen, Headley, and Luedtke make no claim that the AQR adds to the development of Service Quality measurement theory<sup>16</sup>. It simply seeks to be a highly

<sup>16</sup> However, it did add to the theoretical development of Service Quality. The AQR helps to validate the idea of a more objective approach to Service Quality.

reliable, quantitative measure of Service Quality that utilises publicly available secondary data. This provides accessibility, while providing a metric that allows for cross comparison of firm performance.

## **4.8 Measuring Service Quality in the Airline Industry**

Current Service Quality measurements in the airline industry have several distinct problems. First, while some airlines measure their Service Quality, this is often done in-house and not publicised to consumers (except for EasyJet who publish their measurements in their Annual Report). They seem to only serve to paint a longitudinal picture of Service Quality to attract investment. However, the most important discrepancy with such in-house measurements is their lack of real value to the consumer when making purchase decisions. These reports may seem confusing and can be difficult to locate (the average airline consumer is not likely to actively search out EasyJet's Annual Report prior to ticket purchase, for example). Furthermore, there is often no comparative scores among airlines with which the consumer can use to make a decision.

Industry watchers may play an important role in offering consumers some pre-purchase comparison of airline Service Quality. Firms such as Skytrax rank each airline according to a prescribed set of parameters (although their methods are usually private). Often (especially in the case of Skytrax) the firms employ researchers to fly on board each airline and measure the level of service personally. These industry watchdogs may provide a consistent and accurate picture of airline service; however, it is not complete. They typically subscribe ordinal values to each airline, such as the star system used by Skytrax which places airlines into groups ranging from one to five "stars" (they do publish a sixth and seventh star, but this is purely for expansion into a

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Unfortunately, in 1991 no one had thought of this concept and the AQR's contribution was largely unnoticed.

private carriage rating system). This system may be easily understood by consumers, but it is of little use when comparing airlines of the same class. For example, Skytrax ranks seven airlines as “Five Star” (ANA, Malaysia, Singapore, Hainan Airlines, Qatar Airways, Asiana Airlines, and Cathay Pacific), this offers no comparison within the Five Star group. Furthermore, due to the proprietary nature of their methods (Skytrax, 2013b) it is difficult to determine what variables Skytrax uses to measure such airlines and whether or not the methods used to derive such variables are accurate and consistent with modern Service Quality theory.

The most direct instrument for measuring airline Service Quality in the United States (to date) is the AQR. While it has received some criticism for its lack of dimensionality (Gardner, 2004), it is an easily interpreted mechanism for consumers, industry professionals and investors and provides a clear and comparable measurement of Service Quality in the US airline industry. However, the AQR is based on only a rudimentary application of Service Quality theory (further demonstrated in Chapter Four). In addition to this, its factor structure and data collection methods are only applicable to the US market (Headley & Bowen, 1997). In Europe the JAA does not compile as much data as the FAA, nor are the corporate annual reports of European airlines as standardised as in the US. European passengers may also have slightly different determinants of airline quality than American passengers (Tiernan et al., 2008). Although these issues make a European based AQR type instrument more difficult to construct, it would nonetheless be beneficial.

Currently, a comparable system for measuring Service Quality within the UK/EU airline industry is needed (Headley & Bowen, 1997). The area sees heavy price competition, especially within the LCC market. However, construction of such an index may be difficult in the UK because this market has differing industrial and governmental data collection methods and reporting standards than the US market where the AQR is based.

An AQR type system would be able to provide consumers with a pre-purchase determination of the level of quality of an airline, allowing consumers to better evaluate the price/quality paradox. With the advent of online price-comparison websites and services, it is becoming more common for consumers to actively seek out measurements of quality in order to make a more informed purchase decision. A more informed consumer base should produce higher yields for the firm with the best price/quality ratio in a given market (Parast & Fini, 2010; Suzuki et al., 2001). This could result in Service Quality becoming an important competitive strategy for LCC airlines.

## 4.9 Conclusion

Traditionally, Service Quality theory has been viewed as being contained within the Nordic School and the American School. However, this conventional view only takes into account popular subjective models and ignores any objective models. It is more accurate to divide Service Quality theory into a Subjective School, with Nordic and American Camps, and an Objective School, with the Indexing camp (Figure 4.13). This is much more illustrative of the progressive nature of Service Quality theory.

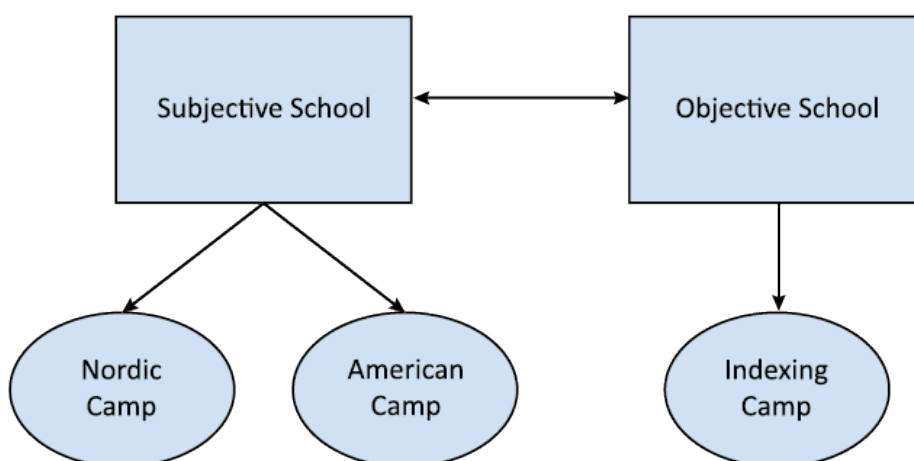


Figure 4.13. Service Quality Schools of Thought

Service Quality theory will always be an area of hot debate. The only concept that seems prevalent throughout the literature is that there is no singular best measurement of Service Quality. Each metric seems to have unique advantages and disadvantages: some are more useful to the practitioner (such as SERVQUAL and SERVPERF) and some are better suited to the academic world (for example, Rust and Oliver's Three Component Model or Grönroos' early model). Furthermore, some industries may lend themselves to more advanced objective measurements (such as the airline industry with its high degree of available quantitative industry data), while others may still need to rely on purely qualitative evaluations of Service Quality (for example, the hairstyling industry where many of its qualities cannot be quantified). The high degree of variation among services makes a global metric of Service Quality very difficult. This "best-fit" approach will almost always result in compromises that could affect the overall accuracy of the measurement. Therefore, in order to gain the best picture of Service Quality, a context-specific approach should always be adopted.

The Service Quality literature is very broad, yet seems to lack depth. There is a multitude of Service Quality models found in the literature; however, other than SERVQUAL and Grönroos' (1984) model of Technical and Functional Quality, there has been very little follow up research to these models. Many of these models deserve expansion, particularly Brady and Cronin's (2001) HiQUAL. This model provides a solid base for research into the nature of Service Quality in the LCC industry by providing a hierarchical, performance-only metric.

Another underlying problem with many of the popular Service Quality measurements is accessibility to the public. These instruments require extensive data collecting methods and complex analysis. Furthermore, once firms have collected and analysed their data, they rarely publish the results (Bowen et al., 1991). This makes a picture of Service Quality almost impossible to obtain from outside the industry. The AQR attempts to rectify this dilemma. The AQR provides a clear picture of the current level of Service Quality within a firm (Bowen et al., 1991; Bowen & Headley, 1993). This



information is then visible to consumers and comparable to industry competitors as well as past performance. However, it requires modification to fit the European market (Headley & Bowen, 1997).

Although the AQR refers to SERVQUAL's five factors, the theory behind the AQR is not consistent with the SERVQUAL model. There is no measurement with the AQR for Consumer Expectations, nor is there any mention of "gap" theory or difference scores. The AQR is a performance-only measurement of Service Quality<sup>17</sup>. However, performance-only measurements are supported in the Service Quality literature and seem to be more reliable when used to measure Service Quality within industries that offer a high degree of tangibility (Buttle, 1996; Carrillat et al., 2007; Cronin & Taylor, 1992, 1994). Secondly, it appears the AQR is attempting to capture measurements of Customer Satisfaction along individual variables and compile them into a measurement of overall quality. Again, this conforms to the popular theory that Satisfaction is an antecedent of Service Quality (Bitner, 1990; Bolton & Drew, 1991; Brady et al., 2002; Cronin & Taylor, 1992; Oliver, 1980, 2009). Brady and Cronin developed their model from a sample obtained from four industries: fast food, photograph developing, amusement parks, and dry cleaning (Brady & Cronin, 2001). Assessment of the nine sub-dimensions demonstrated the strong impact of valence (factors beyond the control of management) on Service Quality. They suggest that one or more of the other sub-dimensions may be able to counteract the negative effect of valence (Brady & Cronin, 2001). Great service in flight may counteract the effects of a flight delay due to maintenance problems. This concept is captured within the AQR: the weights and their associated values allow exceptional service in one area to counterbalance substandard service in another.

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<sup>17</sup> This is another area where the AQR was ahead of the Service Quality literature as it was published a year before Cronin and Taylor's (1992) SERVPERF article.

Being built upon industry performance data, the AQR certainly appears as if it is a return to a manufacturing philosophy. However, the AQR ultimately tries to capture a picture of customer satisfaction. Again, Cronin and Taylor see satisfaction as one of the constructs of Service Quality (Cronin & Taylor, 1992, 1994). Thus, Service Quality is also a determinant of consumers' repurchase behaviour (Park et al., 2006) as well as consumer loyalty (An & Noh, 2009; Chang & Chang, 2010) and overall satisfaction (Taylor & Baker, 1994) within the airline industry.

There is some evidence that the LCC industry is beginning to understand the importance of Service Quality. EasyJet currently publishes the Customer Satisfaction Survey results (CSAT) in their yearly annual reports. Passengers are given the option to take part in the CSAT survey immediately following their flight. EasyJet's research has identified on-time performance and boarding as two major areas of concern for passengers. The CSAT attempts to capture consumer's opinions of these factors along with their repurchase intentions and willingness to recommend. While EasyJet's efforts may be highly effective management tools, the results of CSAT still remain property of EasyJet and are not easily visible to the average consumer. Additionally, they are not comparable between other LCCs (if other LCCs were likely to collect and publish such data).

The North American Market has the AQR (Bowen et al., 1992), yet no similar instrument exists compliant with the European market. Unfortunately, the North American AQR may not be easily transferable to the European market (Headley & Bowen, 1997) due to characteristic differences between the two markets. Therefore, a unique instrument commensurate to an individual market within the European Union Economic Area (in this case the United Kingdom) should be created, independently of other airline markets. The development of a market specific instrument could help drive consumer choice to airlines providing superior services, thus adding a new competitive advantage for the LCC.

## CHAPTER FIVE: METHODOLOGY

### 5.1 Introduction

While considerable research has been conducted into services in the airline industry, the investigation of Service Quality is typically carried out from a universal perspective or in markets outside of Europe. Further Service Quality research within the European market is needed, particularly because the European airline industry has undergone extensive changes since the United States Deregulation Act was passed in 1978. The resulting liberalisation and open-skies agreements that followed within the global airline industry encouraged the emergence of the low-cost carrier. Much of the research focusing on Service Quality within the airline industry views LCCs in the same light as traditional carriers. However, the LCC business model diverges from the traditional business model in both operational and marketing strategies. Therefore, when examining Service Quality within this industry it is important to make a distinction between the two types of airline carriers to take account of the differences in consumers' purchase intentions. LCCs are currently some of the most profitable airlines in the global market, and their sector is the fastest growing within the industry, with many traditional carriers adopting similar operational and marketing strategies. However, the differences between the two carriers still warrant their separation when examining Service Quality.

Rising fuel prices, intense competition and increasingly tight margins has particularly challenged the modern airline industry and increased the difficulty of maintaining profitability. Evidence has suggested that profitability can be improved, particularly within a competitive market, by improving Service Quality; this is one of the last areas that airlines can use to gain a competitive advantage. Therefore, the aim of this thesis is to examine Service Quality in the low-cost airline industry. By conducting research focusing on LCCs within the European market (specifically the

United Kingdom), a novel perspective can be provided that can be used in both a theoretical and practical sense.

Chapter Four has highlighted several of the popular methods for measuring Service Quality. This thesis will select various methods of measuring Service Quality and will attempt to highlight different facets of quality in the low-cost airline industry using these methods.

Three separate studies have been will be conducted using different methods of measuring Service Quality. This includes a qualitative study (content analysis), a quantitative survey (HiQUAL), and the creation of the Airline Service Quality Indicator (ALSI). In addition to having distinct methods, each of these measurements is philosophically different.

## 5.2 Research Aim and Objectives

The aim of this thesis is to examine Service Quality in the UK low-cost airline industry. The Literature Review drives several objectives that can help in achieving this aim. Each objective fulfils a specific purpose:

1. *Identify the determinants of Service Quality in the low-cost airline industry.*

While Airline Quality has received substantial research there has yet been no clear identification of the determinants of Service Quality in the low-cost airline industry. This objective will attempt to benefit Airline Quality researchers and industry professionals by identifying the factors that affect consumers' experiences with the airline.

2. *Apply a traditional model of Service Quality to the low-cost airline industry.*

This thesis will attempt to adapt an accepted Service Quality instrument to fit the low-cost airline industry. While there has been significant quantitative research into the airline industry, very little of this research is market specific. Furthermore, many of the investigations into airline quality do not utilise popular Service Quality

instruments. Answering this objective will add value to the Service Quality literature by examining quantitative models of Service Quality. Traditional quantitative methods for measuring Service Quality (such as SERVQUAL) have typically been applied universally. This thesis argues that an industry-specific instrument is preferable to a global instrument. It will examine the popular service quality models to determine which may be the most beneficial to this research.

3. *Construct and AQR type metric for the UK market.*

Indexing metrics, such as the AQR benefit from the application of easily accessible secondary data and longitudinally comparable outputs. Currently there is no Service Quality index to fit the UK low-cost airline industry. This objective will benefit consumers and industry professionals by constructing an easily understood and longitudinally comparable metric for this context. This thesis will also attempt to demonstrate that an AQR type metric of Service Quality can add to the Service Quality literature by demonstrating the possibility of a shift in research philosophy to more objective measurements.

4. *Examine the relationship between Service Quality and airline profitability.*

Given the large volume of research covering Service Quality and its effect on a firm's profitability (Zahorik & Rust, 1992; Valarie A Zeithaml, 2000), it would seem that the two variables would naturally be positively linked in the airline industry. This is particularly true as the airline industry (especially the LCC industry) is becoming highly price sensitive (Doganis, 2006). However, there is very little in-depth research examining the relationship between Service Quality and profitability, particularly within the unique environment of the airline industry. This objective attempts to further investigate the relationship between Service Quality and its impact on airline profitability. Demonstrating a positive correlation between these factors would benefit the airline industry by highlighting the importance of Service Quality in providing a competitive advantage.

### 5.3 Research Paradigm

The research within this thesis employs a variety of philosophical approaches. The qualitative study is epistemologically interpretive, while the latter studies which look at airline quality from a quantitative and indexing approach are more empirical and positivist. Inductive/interpretive approaches were popular with the Nordic School, and involve heavy use of qualitative measures. Using this approach can be useful when attempting to gather rudimentary data to aid in the construction and development of new theories or to help direct further research (Saunders, Lewis, & Thornhill, 2007). Traditionally, most research within the American School involves both inductive and deductive reasoning, with a blending of the two philosophical approaches. The qualitative approach is used to support the development of the objective instrument. This process demonstrates shift from a subjective to a more objective approach to Service Quality theory.

This thesis employs both deductive and inductive reasoning. In the deductive approach, data are collected to answer specific research questions (Saunders et al., 2007), for example secondary industry data was collected for input into the ALSI. This is the foremost method of reasoning used in this study. However, there is a small element of inductive reasoning contained in the construction of the ALSI. This is found in the various weights applied to the variables in the ALSI.

Most of the modern Service Quality research centres on a subjectivist ontology. That is, the actors in society are the drivers of social phenomena through constantly changing viewpoints (Saunders et al., 2007). Most of the current Service Quality research follows this line of thinking (Grönroos, 2006); the only exception may be the AQR (Bowen & Headley, 2007; Bowen et al., 1992; Bowen & Headley, 1993). The subjective approach relies heavily on the perspectives of individuals to ascertain social variable (here, Service Quality).

However, there is an inherent problem with using individuals to measure Service Quality: their opinions, and therefore the results of the measurement, are easily biased (Berg & Lune, 2004; Mayring, 2004). The Systematic Distortion Hypothesis states that respondents can easily distort their evaluations of other people, or in this case service providers (Shweder & D'Andrade, 1980). This distortion is a result of one or both of the following misconceptions: the first comes from respondents pre-existing ideas of "what goes with what", the second states that recall for affiliated memory items is much easier than for individual items (Shweder & D'Andrade, 1980). Therefore, subjective measurements of Service Quality are intrinsically biased.

Part of this research demonstrates a slight shift in Service Quality from a subjective to a more objective ontology (Figure 5.1). Objectivism views social constructs as absolute and independent of social actors (Saunders et al., 2007). While this may never be completely true with Service Quality measurements, it can be demonstrated in part through the creation of Service Quality indexes. This would result in Service Quality being viewed as an absolute value that exists within nature, independent of the opinions of consumers. Doing so can simplify calculating, analysing and comparing Service Quality scores.

Subjective investigations into Service Quality merely examine an individual's emotional commitment toward the ideal of Service Quality. This theory assumes that social variables (Service Quality) are somehow an intrinsic component of man's psyche, independent of reality. The objective approach sees Service Quality as an absolute value, independent of the individual (Rand, 1990). Service Quality is therefore an "evaluation of the facts of reality by man's consciousness, according to a rational standard of values" (Rand, 1990, p. 221). Therefore, a shift toward an objective approach to Service Quality theory may provide a more representative measurement of Service Quality within a given industry (not Perceived Quality).

The first study in this thesis employs highly interpretive, qualitative methods to determine what passengers value in their air-travel experience. The research then moves to become less subjective, with the second study using a popular quantitative metric for measuring Service Quality to generate an illustration of Service Quality in the UK low-cost airline industry (Figure 5.2). Finally, the last generates a similar measurement to the AQR, with the aim of creating an objective measurement of airline Service Quality.

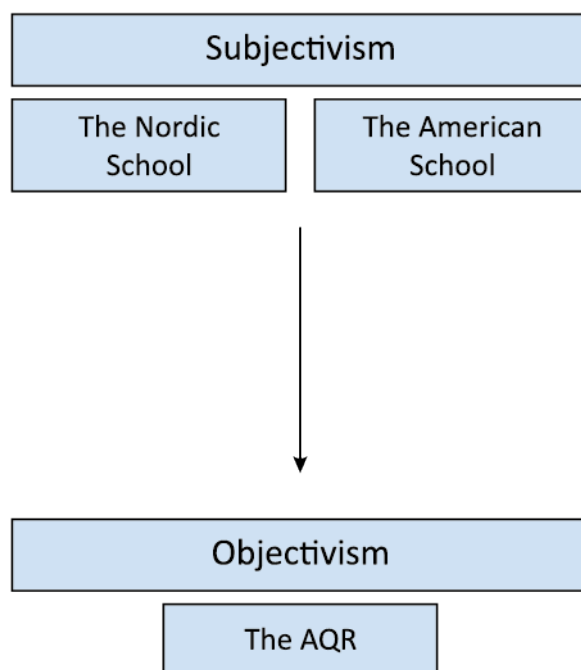


Figure 5.1. Service Quality Ontology

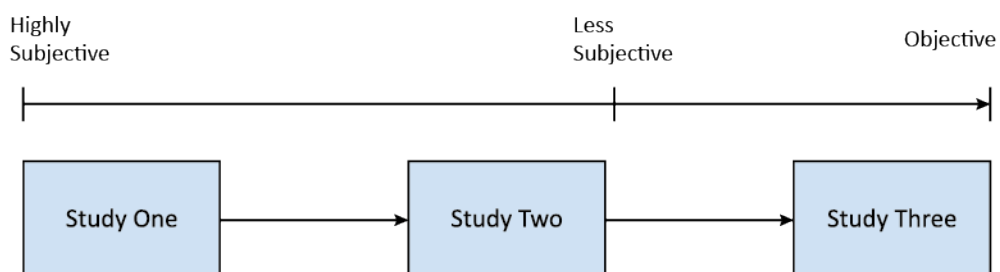


Figure 5.2 – Service Quality Ontological Path



## 5.4 Achieving the Objectives

In order to fulfil the aim and objectives of this thesis, an in-depth investigation into Service Quality in the low-cost airline industry in Europe will need to be conducted. This investigation will use several key methods that have previously been used within the literature to advance Service Quality Theory, including in-depth interviews, focus groups and quantitative surveys (Ritchie, Lewis, Nicholls, & Ormston, 2013). This section will detail which methods are appropriate in helping to meet the objectives of this thesis.

### **5.4.1 Objective One:** *What are the determinants of Service Quality in the UK low-cost airline industry?*

Previous research into airline Service Quality has not specifically focused on the LCC industry in Europe. Exploratory research into the determinants of Service Quality in the European airline industry will further progress by qualitative investigation.

Qualitative research is often used to explore the truth in society or find the real perceptions of individuals (Robertson, 2002). Focus groups and in-depth interviews may help establish an in-depth understanding of passengers' opinions of airline quality; however, these methods of data collection can be expensive and time consuming. While each has its inherent strengths, conducting a large-scale project is out of the scope of this project due to constrained timescales. Examining existing content is an efficient solution that can effectively identify the key determinants of Service Quality in this industry.

The popularity of the airline industry has spawned many industry watchers (such as Which?, Skytrax and TripAdvisor). These generally come in the form of media publications, online review sites, or specialist companies that specifically monitor airline quality. While there is a multitude of independent airline industry watchers

available to the consumer, this study will only focus on the most popular and most visible. A clear explanation of the advantages and disadvantages of each watcher will be discussed in-depth in Chapter Seven.

The comments left by consumers on web-based travel sites can be a source of secondary data. These sites provide the ability to purposive select responses that relate specifically to the context (in this case a specific airline). Therefore, the comments can be selected and categorised based upon like experiences. Consumers can give information-rich responses on such websites and often comment on the most influential aspects of the experience. Therefore, this type of data, primarily, represents an information-rich account of consumers' experiences with an airline and has a secondary benefit of being readily available to the researcher.

Some popular web-based industry watchers offer consumers the ability to give feedback on their experiences and such comments may be a valuable source of easily obtainable data for researchers (Bakos, 1998). Some research has used such sources to evaluate Customer Satisfaction within the securities brokerage services (Yang & Fang, 2004); therefore, this study will determine the approachability of such data to finding the determinants of Service Quality in the low-cost airline industry. The results of this study should generate a set of determinants relating to airline quality that are important to the consumer.

#### **5.4.2 Objective Two:** *Can current Service Quality Models be applied to the UK low-cost airline industry?*

While there has been significant research into the airline industry, many of these studies do not utilise popular Service Quality scales. While they incorporate a variety of methods, very few use accepted instruments such as SERVPERF or SERVQUAL. Furthermore, much of the Service Quality literature seeks to apply Service

Quality scales universally. This thesis argues for the modification of such scales to fit a given industry.

This study will apply an established quantitative metric of Service Quality in order to gain insight into the nature of Service Quality in the low-cost airline industry. Such models provide an established framework with which we can investigate Perceived Quality from a quantitative perspective. These methods can allow the direct comparison of results and statistical inference from the data. This study will investigate the applicability some of the possible metrics (outlined in Chapter Four) and make a recommendation for the following research.

Considering the theoretical problems with SERVQUAL and SERVPERF; SERVPEX appears to be a more appropriate choice for examining Service Quality within the LCC industry. As Chapter Four illustrates, SERVPEX is both a theoretically sound and modern instrument for measuring Service Quality. SERVPEX also has the advantage of being originally constructed for the airline industry so little or no modification would be required. However, Robledo demonstrated that performance-only measurements statistically outperform difference-score based instruments in measuring Service Quality within the airline industry, an argument which was justified in Chapter Four (Cronin & Taylor, 1994; Robledo, 2001). This study therefore implements a performance-only measurement of Service Quality in order to be congruent with established Service Quality literature. While SERVPEX may be an acceptable instrument, it is not a performance-only measurement as it attempts to measure both expectations and performance simultaneously. Consistency of measurements negates its usage in this study leaving only SERVPERF and HiQUAL as possible instruments of choice.

Research has previously been conducted on the hierarchical nature of Service Quality within the airport environment. Fodness and Murray found that their data fit a clear hierarchical model of Service Quality in the airport industry (Fodness & Murray, 2007). Given the close relationship of the airport and consumer airline experiences, it

would be relevant to also test the applicability of hierarchical models to the airline industry. The second study within this thesis (found in Chapter Six) will apply the long-neglected HiQUAL instrument to establish a quantitative measurement of Service Quality within the UK LCC industry (Brady et al., 2002). HiQUAL is a justifiable choice for this study because it is a performance-only measurement of Service Quality, easily adapted to a specific industry, and hierarchical in structure. Furthermore, this thesis argues for an industry-specific measurement of Service Quality and HiQUAL should be easily adaptable to an airline context.

Achieving this objective involves the creation and distribution of a quantitative survey. The survey collected data for two separate studies simultaneously (Chapter Six and Chapter Eight). This was necessary to fit the time constraints of this research project. The survey is constructed in four parts: i) initial qualifying questions; ii) questions generated from the content analysis study in Chapter Seven; iii) the HiQUAL instrument and iv) demographic questions.

In order to fit the specific context, the HiQUAL instrument requires slight modification of the verbiage to fit the low-cost airline context. The results of the content analysis study were also transformed into a series of questions in order to capture consumers' opinions of these topics. The results from these questions will be used in Chapter Eight to construct a novel metric for low-cost airline quality.

#### **5.4.3 Objective Three:** *Can Service Quality in the low-cost airline industry be measured objectively?*

Much of the Service Quality literature is based on subjective evaluations of consumer response data. Consequently, much of the airline industry-specific research into Service Quality follows the same pattern. Subjective measurements rely on the interpretations of consumers' opinions. Such opinions are subject to change and could affect the outcomes of the research. This objective will demonstrate a shift in ontology

from the purely subjective measurements of Service Quality to a more objective measurement. Demonstrating the viability of such metrics could allow for further development of objective metrics within the Service Quality literature. An objective instrument would measure Service Quality independently from the consumer. This would allow for data other than consumer opinion (such as secondary data obtained from government and industry sources) to be utilising in generating a Service Quality score. The Airline Quality Rating provides an example to support the creation of an objective instrument for measuring service quality in the airline industry (Bowen & Headley, 2007; Bowen et al., 1991, 1992; Headley & Bowen, 1997).

Headley and Bowen suggest the application of their concept to airline markets in Europe, however; to date there has been no attempt at implementing this (Headley & Bowen, 1997). This may be because the availability of data within the UK is much different than in the US because of the distinct reporting requirements between the two countries. Therefore, the AQR cannot simply be transposed onto the UK market. It must be reconstructed to fit the UK context.

This thesis also argues that there are significant differences within airline markets and Service Quality should only be measured within these unique markets to avoid unfair comparisons between full-service and low-cost carriers. The LCC market differs greatly in respect to service offered than traditional carriers (which were included in the AQR). Therefore, this study will construct an AQR type index specifically for the UK low-cost airline industry. Such a metric will provide longitudinally comparable outputs that are independently measured (to help reduce bias) and easily understood by the consumer and professional alike.

Justification for such an objective measurement of Service Quality has been outlined in the literature (Elliott & Roach, 1993). Elliot and Roach determined that there may be factors influencing airline service attributes other than those available for observation by the consumer. Therefore, the airline may be receiving an unfair

evaluation from the consumer. This thesis suggests that the construction of a scale that assesses the quality of low-cost airlines operating within the United Kingdom, namely the Airline Service Quality Indicator (ALSI). Unlike other methods of measuring quality, ALSI uses regularly published, comparable, quantitative data that are linked to customer quality concerns.

The Airline Service Quality Indicator draws its concept from the Airline Quality Rating; however, unlike the AQR, ALSI will measure Service Quality within one segment of the UK airline industry, whereas the AQR looks at the industry within the United States as a whole (incorporating low-cost, regional and traditional carriers). This is a marked difference between the AQR and ALSI as the various segments of the airline industry offer very different services and should be measured separately.

Some opinion has been expressed as to the lack of dimensionality that this type of instrument may possess (Gardner, 2004). The ALSI will attempt to correct this through its construction on modern Service Quality theory and where possible, bringing in values other than raw data figures (such as percentages or weighted variables). This should alleviate any concerns over dimensionality by providing increased depth to the instrument.

#### **5.4.4 Objective Four: *Can Service Quality be related to airline profitability?***

As outlined in the context chapters, many low-cost airlines in the UK engage in the practise of selling goods and services in flight. This effectively makes the cabin of the aircraft a retail storefront. If an AQR style metric for Service Quality in the UK low-cost airline industry can be created, then the results of that index may be comparable to airline's ancillary sales, which are a component of the low-cost airlines' profitability strategies. This comparison is to be traced longitudinally to determine if there is a relationship between Service Quality and profitability.

## 5.5 The Subjects

Within the European airline industry, there exists many markets with unique attributes whose examination would result in academically and professionally interesting perspectives for Service Quality. In these markets, the LCC can currently be argued as one of the most interesting due to its fast growth, strong market presence and preference for price competition. Therefore, this study will examine LCC's operating within Europe, specifically within the United Kingdom (chosen for its uniformity of financial reporting and ease of access). Traditional carriers and regional airlines are excluded from the studies in this thesis along with small or unscheduled operators as these airlines serve a different market than the LCC's. This section highlights some of the more interesting points of the airlines included in this study and, importantly, explains the exclusion of some airlines commonly thought to belong to the LCC market. Each airline is evaluated by its applicability to the LCC model and its applicability to the three studies in this thesis.

### 5.5.1 Ryanair

Founded by the Ryan family of Dublin Ireland in 1985, Ryanair is the largest (in number of aircraft and route structure) and most profitable LCC operating within the UK. They began with the objective of putting Ireland's national flagship carrier Aer Lingus out of business (interestingly Aer Lingus is now partly owned by Ryanair). Initially, they operated a single route from Waterford to London Gatwick flying in a 15-seat Embraer Bandeirante (EMB 110). The first few years saw rapid growth for Ryanair until 1990 when they began to face significant managerial and legislative challenges that bankrupted the fledgling airline (Ryanair, 2012a). After an extensive capital investiture of (£20 million pounds from the Ryan family, Ryanair employed Michael O'Leary to shadow Herb Keller (CEO for Southwest airlines in Dallas, Texas) for six

months (Ryanair, 2012a) . Following this, O’Leary implemented the Southwest model at Ryanair with great success (Ryanair, 2012a).

From the late 1990’s Ryanair has seen extensive expansion of its route structure and growth of passenger numbers. They now operate from 53 bases on over 1,500 routes across 23 countries (Ryanair, 2012a) . They are headquartered in Dublin, however; it is included in this study due to its very large market presence in the UK. It is considered a Southwest Copycat even though it has extensively modified the Southwest model.

Like Southwest, Ryanair’s flights are carried out in a single aircraft type, the Boeing 737-800. This aircraft is the most advanced of the 737 series and offers maximum efficiency and economy of operations due to the need to carry parts and maintenance schedules for only one type of aircraft. Their route structure encompasses “smaller” airports (in relation to major airports such as London, Heathrow or Paris Charles-de-Gaulle) usually located outside the metropolitan areas of large cities. Ryanair follows the “no frills” model of service exclusion charging additional fees for everything from checked baggage to printing a boarding pass at the check-in counter (Figure 3.2).

Ryanair is famous for their marketing strategy claiming to be “the world's favourite airline” (Ryanair, 2012a) . Their business plan is simple; they design themselves to be the cheapest airline in the industry, and nothing else (Ryanair Annual report, 2012). Their advertising campaigns have generated significant media attention and have suffered frequent criticism by popular press media. However, scrutiny does not seem to stop Ryanair (Gordon, 2011).

Ryanair is not committed to personal, face-to-face Service Quality. Rather, their interest in Service Quality is in any element that affects profitability directly (such as on-time performance). Their lack of empathy is very popular in modern media and extends throughout their corporate hierarchy. This makes Ryanair a great lens with



which to look at the influence of Service Quality to ticket purchasing: empathy and responsiveness are virtually non-existent, yet they remain one of the most profitable airlines in the industry.

Furthermore, like most LCCs in Europe, Ryanair generates ancillary revenues from the sale on in-flight goods. They also offer the availability to book hotels and rental cars through their corporate website. Ryanair is as progressive in generating ancillary revenues as they are with cost cutting and marketing. “Exploding fees” (whereby the consumer finds themselves paying an unexpected fee) have been a popular method for generating new revenues. Recently Ryanair has adopted the advanced notion of selling advertising space inside their cabins and is generating notable revenues. This is definitely an industry first within the UK and European market; however, it is unclear how Service Quality can influence these revenues.

### **5.5.2 EasyJet**

EasyJet PLC. is the second largest LCC operating in the UK market. Having carried more than 60 million passengers in 2013 it operates over 200 aircraft and employed over 8,000 people. Founded in 1995, with the vision of being a consumer-focused brand, EasyJet has quickly expanded to become the largest airline operating in the UK market. Unlike Ryanair, EasyJet is a pure Southwest Copycat (they allow for some inclusive services within the ticket price such as allocated seating). Unlike many LCCs, EasyJet offers business class seating. However, priority boarding is still an additional fee and they do not offer a baggage allowance.

EasyJet offers low fare, point-to-point flights from 23 bases throughout Europe. They have over 700 routes and are rapidly expanding (200 routes have been added since 2011). Mostly routes are throughout the UK and Europe, but some include destinations to the African continent (such as Morocco, the Faroe Islands and three destinations in Egypt). EasyJet estimates that 300 million people live inside a one-hour

drive of an EasyJet carrier. This makes EasyJet the largest competitor for Ryanair in the UK market.

Despite being a Southwest copycat, EasyJet differentiates itself from Ryanair in several respects. EasyJet has a consumer focus while Ryanair has become famous for its gross lack of friendly service. Ryanair also focuses strictly on price competition, catering only to budget minded travelers (mostly within the leisure market). EasyJet likes to see itself as a value airline, not strictly the lowest-price in the market. This leads to several distinctly different business strategies. Most notably, EasyJet passengers have an option to buy business class seating or standard class tickets with priority boarding or extra leg room. Ryanair passengers can purchase priority boarding only. Ryanair's passengers only fly to smaller airports located far from city centres (such as Paris Beauvais), while EasyJet currently flies to 44 out of Europe's 50 largest airports (such as Paris Charles-de-Gaulle). EasyJet also plans to expand its availability of larger airports in the near future, while Ryanair has no plans to do so. EasyJet has begun to view itself, not just as an airline, but as a value brand. This has led EasyJet to expand into the hospitality industry with the EasyHotel brand. These hotels are modelled after the same values as EasyJet: to make travel easy and affordable. At this time there is no evidence that Ryanair has plans to operate outside of the airline industry.

EasyJet's competitive strategy is aggressive. Their mission statement is simply, "Turning Europe orange" ("EasyJet, Plc. Annual Reports and Accounts 2013," 2014) which illustrates EasyJet's plan to expand its market coverage to all of Europe and beyond. However, unlike Ryanair, EasyJet's guiding principle is not simply to have the greatest market share, but to be the first or second airline in the market with significant share while generating the highest financial return. EasyJet's Strategy also differs from Ryanair's in that it includes language relating to friendly customer service. Their statement of Strategic Intent clearly illustrates this point: "Leverage EasyJet's cost advantage, leading market positions and brand to deliver point-to-point low fares with

operational efficiency and friendly service for our customers” (“EasyJet, Plc. Annual Reports and Accounts 2013,” 2014).

EasyJet publishes a Customer Satisfaction rating in the company's annual report. They claim that in 2012, 85% of all passengers were satisfied with the service (“EasyJet, Plc. Annual Reports and Accounts 2013,” 2014). However, there is no comparison made with the satisfaction levels of competitors’ customers, nor is there any description of the methods used to derive the Customer Satisfaction figures. This emphasises the need for a universal, comparable means of measuring quality within the LCC industry. Since Service Quality may drive some aspects of repurchase behaviour and consumer loyalty within the airline industry (Ostrowski, O’Brien, & Gordon, 1993), the ability to freely compare Service Quality scores could be attractive to investors.

### **5.5.3 Jet2.com**

Jet2.com is a wholly owned subsidiary of Dart Group PLC. The group operates two key market segments: aviation (Dart Group, 2012) and ground transport (under the trade name Fowler Welch). The aviation business is targeted at the holiday travel market through their Jet2holidays.com website. This is the only UK-LCC that offers third-party channels of distribution for its tickets, although the majority of ticket sales are still through the company's website (Dart Group, 2012). They are relatively small in comparison to Ryanair and EasyJet. They seek market differentiation by specifically focusing on holiday tourism. While Jet2.com is a wholly owned subsidiary of Dart Group PLC., the company provides some segmentation of financial statements in their annual reports. Unfortunately, the aviation and trucking operations cannot be completely separated, and so Service Quality in Jet2.com’s airline industry cannot be measured. For this reason they have been excluded from this study. However, if Dart Group PLC. were to publish figures for their airline independently from their other operations, Jet2.com could be integrated into this study.

#### **5.5.4 Bmibaby**

Bmibaby is a wholly owned subsidiary of British Midlands Ltd. (bmi). Since November 2009, Lufthansa has been the sole shareholder of bmi via the British holding company LHBD Holding Ltd. In 2010 the company was successfully integrated into the Lufthansa Group. Lufthansa Group consolidates bmi and bmibaby's financial and performance data in their yearly publications, along with many other Lufthansa partners. Similar to Jet2.com, this makes raw data pertaining solely to bmibaby very difficult to obtain. For this reason, bmibaby is excluded from this study.

#### **5.5.5 Flybe**

While having relatively low airfares, Flybe operates as a Regional Airline, not an LLC. This is evident in their recent code sharing agreement with Air France (Flybe, 2012). For this reason, Flybe has been excluded from this study.

### **5.6 Conclusion**

This thesis will record three individual studies with the aim of investigating Service Quality in the low-cost airline industry in the United Kingdom. Each study will provide a different perspective for assessing Service Quality. While this thesis assumes there are no perfect measures of Service Quality, each measure has its own relative advantages and disadvantages. SERVQUAL, while being cumbersome, does have the advantage of being easily understood and accepted by academics and practitioners. SERVPERF is a lightweight measure for Service Quality built around the same five dimensions as SERVQUAL. HiQUAL is theoretically sound, but it has seen little adoption in academic literature or industry practice. There is no ideal method for constructing a comparable metric for quality in a given industry. Again, this is largely because there can never be enough data to fill all of the variables needed to measure customer preferences in a given service industry. Any comparable, industry specific

measurement of Service Quality can only use the data that is available. Therefore, a “best fit” approach is the most reasonable expectation for measuring Service Quality (Robertson, 2002).

It may be possible to reconstruct the AQR in a UK context. Doing so would provide the UK market with an objective measurement of Service Quality that produces longitudinally comparable outputs and is easily calculated and understood. However, reconstructing this metric to fit the UK market is a challenge, particularly because UK passengers may value different aspects of the airline experience than US passengers, therefore requiring a re-examination of the metric’s variables. Additionally, the reporting process for airline statistics may be different in the UK than the US and this could potentially limit the collection of the necessary data.

# CHAPTER SIX: A QUANTITATIVE MEASUREMENT

## 6.1 Introduction

The second aim of this thesis asks: can traditional quantitative methods of measuring Service Quality be adapted to fit the low-cost airline industry context? This is important as it continues the debate on qualitative scales within the Service Quality literature. This chapter fulfils this objective by using an accepted quantitative method of Service Quality to measure Service Quality in the UK low-cost airline industry. By using this method, a quantitative representation of the value of specific variables relating to quality in this context can be presented. The previous Chapter examined the determinants of Service Quality from a qualitative perspective; this Chapter will examine Service Quality through a quantitative lens. The quantitative lens allows for the assessment of the relationship between different factors of Service Quality. This Chapter represents a complete study and will utilise a somewhat neglected hierarchical measurement of Service Quality (HiQUAL).

Chapter Four outlined several inconsistencies in the application of modern Service Quality measurements. The most prominent of these is the discrepancy over the disconfirmation paradigm and the need to measure Performance in Service Quality scales. Another inconsistency is the long-standing argument between the Nordic and American schools. Brady and Cronin's hierarchical model HiQUAL was developed to unify the theory found in Nordic and American schools and to resolve many of the discrepancies in Service Quality research by combining the two schools of thought (Brady & Cronin, 2001). The development of HiQUAL negates the need to measure "Gaps" in the service encounter, and by offering measures of technical and functional quality it integrates both the Nordic and American schools within its design thereby creating a more holistic scale. Furthermore, the hierarchical structure of the scale

allows for the examination of Service Quality in greater depth than one-level scales. Unfortunately, because of an often unjustifiable dedication to using SERVQUAL and other gap-models in Service Quality research, this highly developed metric has since gone unused in practise. While there are some instances of researchers constructing similar models that appear to resemble HiQUAL (Dagger, Sweeney, & Johnson, 2007; Ko & Pastore, 2005), there is limited direct application of the HiQUAL model in the literature.

Previous Chapters cover the construction of HiQUAL and the reasons why it has been chosen for examining Service Quality in the UK low-cost airline industry. HiQUAL was chosen for its performance-only characteristics and hierarchical structure that had also been identified in the airport industry. HiQUAL contains a total of thirty-five items that intend to capture consumers' evaluations of twelve factors relating to Service Quality (second-order dimensions include Interaction Quality, Service Environment Quality and Outcome Quality, third-order dimensions include Attitude, Behaviour, Expertise, Ambient Conditions, Design, Social Factors, Waiting time, Tangibles and Valence). Most of the questions are designed to capture measurement of Reliability (r), Responsiveness (sp), or Empathy (em). These elements were taken from the popular SERVQUAL model. The HiQUAL model seeks to add another dimension to the SERVQUAL factors by determining *what* is Reliable, Responsive and Empathetic (as illustrated in Chapter Five).

The numerical outputs in the HiQUAL study allow the results to be inherently more quantitative than those produced by the content analysis study conducted in Chapter Seven. However, HiQUAL still relies on consumer's opinions, which are naturally susceptible to bias (Bertrand and Mullainathan, 2001). Brady and Cronin (2001) developed HiQUAL as a global measure of Service Quality (p.55). Therefore, slight modification of the HiQUAL model is necessary to fit the context of the low-cost carrier airline industry. However, Brady and Cronin (2001) did not specify how to modify HiQUAL, or to what degree the scale would need to be modified to fit a specific

industry. Therefore, this study will examine the verbiage of the HiQUAL items for their fit with the low-cost airline industry context in the following section. Following modification, the survey will be distributed, data collected and analysed to determine if the data fits the HiQUAL framework.

The findings of this study illustrate the hierarchical structure of Service Quality in the UK low-cost airline industry. This benefits the Service Quality literature by furthering the understanding and application of hierarchical models. Additionally, the path analysis provides industry professionals with a clear picture of the relationship among the components of Service Quality in this context.

## **6.2 HiQUAL Framework**

The HiQUAL Framework consists of three second-order sub-dimensions and nine third-order dimensions, which give the scale a hierarchical structure. The following section will describe in detail the hypothetical framework of the HiQUAL scale.

### **6.2.1 Interaction Quality**

The interaction between customer and service provider (the employee-customer interface) is a key element to understanding Service Quality (Czepiel, 1990). Some of the literature views Service Quality as being a process oriented variable (Surprenant and Solomon, 1987), especially within the airline industry (Chen and Chang, 2004). This means that Service Quality, in this context, may be dependent on the interaction with the service provider during the process, rather than simply the outcome.

Brady and Cronin (2001) agree that three factors contribute to the Interaction Quality: Attitude (Bitner, 1990; Grönroos, 1990), Behaviours (Grönroos, 1990), and Expertise (Grönroos, 1990). The section consists of eleven questions measured on a seven point Likert scale. Each of these sub-dimensions (Attitude, Behaviours and



Expertise) is supported with three items relating to Reliability, Responsiveness, or Empathy.

The hypothetical framework for Interaction Quality is as follows:

*H1: Perceptions of interaction quality are positively related to perceived Service Quality.*

*H2: Perceptions of Employee attitudes directly influence the quality of service interactions.*

*H3: Perceptions of employee behaviour directly influence the perceived quality of service interactions.*

*H4: Perceptions about employee expertise directly influence the quality of service interactions.*

## **6.2.2 Service Environment Quality**

As a service is consumed within a servicescape, it is rational to assume that Environmental Quality will have an effect on the total perception of Service Quality. Brady and Cronin cite strong support in the literature for measuring Service Environment Quality (Brady & Cronin, 2001). This is largely because most services (particularly in the case of the airline industry) require the consumer to be present during the consumption process making them subject to the elements of the service environment. The quality of the environment in which the service is provided will have an effect on the consumers' overall perception of Service Quality (Bitner, 1992).

Brady and Cronin (2001) identify three factors that affect overall Environmental Quality: Ambient Conditions, Facility Design, and Social Factors. Each of these is measured in the survey with three items capturing Reliability, Responsiveness, and Empathy.

In this study, Ambient Conditions refers to anything non-visual that may affect the passengers' perception of Environmental Quality. Smell, temperature, and noise

are great examples. These factors can be highly influential in passengers' perceptions of environmental quality (Baker, 1996; Bitner, 1992; Brady and Cronin, 2001) and are particularly impactful within the enclosed cabin space of an aircraft. Additionally, many of the contributors to these factors are within the control of the airline. Cabin crew frequently adjust atmospheric temperature and pressure to ensure optimal comfort. Noise can be compensated for and reduced during the construction of the airline, for example: many of today's modern aircraft are fitted with high efficiency engines and winglets that not only increase fuel economy but also reduce noise. Conversely, many older aircraft of the same type tend to not have these devices and are much louder.

It may seem that many aspects of the LCC servicescape are out of the control of the airline (for example, screaming children or obtrusive passengers in neighbouring seats). However, the airline can provide a positive environment where such annoyances may be minimised. Therefore, the customer's overall perception of the environment is more positive. Furthermore, even though LCCs typically use the same equipment (like the very popular Boeing 737), each aircraft cabin is fairly customisable in the number of rows of seats, seat reliability, leg room and colour scheme which can all affect passenger comfort. Comfort is essential to Service Quality in many service industries as well as transportation services (Larrabee and Boldon, 2001; Richards, 1980). As passenger comfort is at the direct control of the airline, it is essential to try to understand the consumer's perception of the service environment and Service Environment Quality may be reflective of the level of comfort.

Brady and Cronin also identified Facility Design as a factor that affects overall Environmental Quality. To aid in the validity of this section the questions were modified to better fit the airline context; "Facility Design" now refers to "Cabin Design". Cabin Design can affect perceived Environmental Quality from both a functional and aesthetic perspective. Functionally, the design of the chair is most likely to have the biggest influence on Environmental Quality (such as the ability to recline

and the addition of adjustable headrests). Overhead cabin space (which has the potential to reduce or enhance claustrophobic-type feelings) is also a major functional contributor to Cabin Design. Aesthetically, details from the seat material to window size can affect Environmental Quality. A principal contributor to the aesthetic Cabin Design is the colour scheme. Traditional airlines are often viewed as having a superior cabin design to LCCs. KLM for example integrates a variety of complementary colours randomly throughout their cabin space as this results in a more personalised, richer environment. LCCs are often known for their garish colour schemes (such as Ryanair's yellow and EasyJet's orange colour themes), which can detract from the Environmental Quality experience. However, in 2016 Ryanair revealed a re-designed cabin space for their aircraft. The seats are now a more uniform dark blue, with a yellow band surrounding the headrest. This change moves the design style closer to that of traditional carriers such as British Airways, which should improve Environmental Quality for passengers by providing a more modern, relaxed interior.

Social Conditions was a further factor that Brady and Cronin identified as affecting Environmental Quality. Social Conditions, in this context, refers to other consumers' opinions of the service. These can have a strong impact on the passengers' overall perception of the service environment (Baker, 1996; Brady and Cronin, 2001). Such things as disgruntled passengers or crying children are good examples of how some social conditions can have a negative effect on the consumers' perceptions of the service environment. Likewise, pleased passengers, or a friendly employee could have a positive impact on this dimension. Social Conditions have the potential to have a cumulative effect: a more positive experience from other influences (such as boarding the aircraft) can result in better behaviour and happier surrounding passengers and staff, or a more negative experience (for example, through imposed fees) can result in the reverse. Even if some elements of the Environmental Quality is out of the control of the service provider, it is nonetheless relevant to the consumers' overall perception of Service Quality (Baker, 1986; Baker, Grewal, and Parasurman, 1994; Bitner, 1990).

The hypothetical framework for Service Environment Quality is:

*H5: Service Quality is directly affected by physical environment quality.*

*H6: Ambient conditions within the servicescape directly affect the Service Quality of the environment.*

*H7: Facility design directly affects perceived environmental quality.*

*H8: Social conditions have a direct influence in perceived environmental quality.*

### **6.2.3 Outcome Quality**

Technical Quality (Carman, 2000; Grönroos, 1982, 1984, 1992; Rust and Oliver, 1994) is the actual result of the service encounter. Brady and Cronin measure this as Outcome Quality. In the HiQUAL Model it is a function of three sub-dimensions: Waiting Time, Tangibles, and Valence. Waiting time in this study, refers to waiting time for cabin service on-board the aircraft. This is stressed in the survey with the modifications of some of the questions, as it is important that respondents do not confuse waiting-time with time spent in the airport or flight delays. There is also a significant amount of literature to support the influence of perceived Waiting Time on consumer buying behaviour (Hornik, 1984).

The second sub-dimension of Outcome Quality is Tangibles. There is some support to warrant the inclusion of a tangible measurement (Chen and Chang, 2004) when measuring airline quality. However, this is based on a study of traditional carriers and Tangibles should similarly be examined into the low-cost airlines industry. Recent research has shown that tangibles play heavily in the perceived Service Quality within some low-cost airline markets in Korea (Kim and Lee, 2011). This determination was arrived via SERVQUAL, not a performance-only metric. As well, the Korean LCA market differs greatly from the UK LCA market in respect to tangibility. This makes

tangibles an area of special interest when examining Service Quality in the UK LCA market.

Valence is an all-encompassing measurement of the service outcome. It “captures attributes that control whether the customers believe the service was good or bad, regardless of their evaluation of any other aspect of the experience” (Brady and Cronin, 2001, p. 40). This variable controls for factors that are outside of the control of the firm, yet still influence the passenger's perception of the outcome, for example, flight cancellations due to severe weather. Valence captures the overall attitude toward the service provider. Including this factor ties together some long held beliefs by the Service Quality literature that perceived Service Quality is similar to an attitude (Cronin and Taylor, 1992; Parasurman, Zeithaml and Berry, 1985,1988). However, measuring Service Quality as an attitude was not included in any of the popular Service Quality metrics (SERVQUAL or SERVPERF) until Brady and Cronin's (2001) model.

All of the factors originally identified in HiQUAL may be present when applied to the airline industry. However, it is important to implement HiQUAL as completely as possible as this will allow the analysis to determine how, and to what degree, each of these factors relate to the airline industry.

The hypothetical framework for Outcome Quality is:

*H9: The outcome directly influences the Service Quality of the service.*

*H10: Perceptions of Waiting Time directly influence the perceived outcome quality.*

*H11: Perceptions of the tangible evidence directly influence the service outcome quality.*

*H12: The Valence of the Service encounter directly influences service outcome quality.*

## 6.3 Survey Construction

### 6.3.1 Initial Questions

The survey begins with two questions to segregate the respondents into groups:

*Have you flown with either of the following airlines: Ryanair or EasyJet?*

*How often do you take flights on one of these air carriers?*

The first question is a disqualifying question in order to negate respondents who have not flown on Ryanair or EasyJet within the last 12 months. The second question allows for further sorting of the results based on amount of experience.

### 6.3.2 HiQUAL Questions

Because the original HiQUAL instrument was designed as a global measurement of Service Quality it required slight modification of its verbiage to fit the airline industry. This involved rewording some of the items to fit the context and provide clarity. The original text appears below in italic and modifications appear in brackets. In all instances, the “XYZ corporation” used in Brady and Cronin’s (2001) original survey has been replaced with “the Airline.” A full copy of the survey form can be found in Appendix III.

The HiQUAL instrument consists of each of the three second-order factors of Service Quality (Interaction Quality, Service Environment Quality and Outcome Quality) across two initial items. The third-order factors (Attitude, Behaviour, Expertise, Ambient Conditions, Design, Social Factors, Waiting Time, Tangibles and Valence) are then measured across three items; however, each of these items is designed to capture the Reliability, Responsiveness or Empathy of each factor. The following sections describe the HiQUAL instrument broken down by second-order factors.

### ***Interaction Quality***

Brady and Cronin's (2001) HiQUAL study favoured the idea that Service Quality was, in effect, a series of processes (rather than outcomes) by which the customer interacts with service provider (Surprenant and Solomon, 1987). Their initial qualitative research into HiQUAL revealed that Interaction Quality contained three components: Employees' Attitudes, Behaviour and Expertise (as illustrated in Chapter Five).

#### *Interaction Quality*

*Overall I'd say the quality of interaction with this firm's employees is excellent.*

*I would say that the quality of my interaction with [the airline's] employees is high.*

#### *Attitude*

*You can count on [this airline] employees being friendly.*

*The attitude of [this airline's] employees demonstrates their willingness to help me.*

*The attitude of [this airline's] employees shows me that they understand my needs.*

#### *Behaviour*

*I can count on [this airline's] employees taking actions to address my needs.*

*[This airline's] employees respond quickly to my needs.*

*The behaviour of [this airline's] employees indicates to me that they understand my needs.*

#### *Expertise*

*You can count on [this airline's] employees knowing their jobs (r).*

*[This airline's] employees are able to answer my questions quickly (sp).*

*The employees of [this airline] understand that I rely on their knowledge to meet my needs (em).*

### ***Service Environment Quality***

Although it may appear that the physical environment of airline service providers would be uniform across the industry, especially among Ryanair and EasyJet who operate very similar equipment (Boeing 737's. Ryanair and EasyJet also have very different cabin interiors. Therefore, these questions remain in slightly modified form (the word "physical" has been replaced with "cabin.").

The Ambient Conditions items relate directly to service providers with physical store-fronts (such as restaurants or retail stores). While ambient conditions may play a factor in perceived Airline Quality, the uniformity of these factors across the industry nullifies their effect (for example, the ambient conditions on-board all similar type aircraft are somewhat uniform). These questions will remain in this study to determine if this is indeed the case. However, slight modification will be required to bring the questions into context. In the first question, aside from replacing "XYZ" with "this airline", the word "good" (in relation to the atmosphere) was changed to "pleasant". This is so the meaning of the question to evaluate the satisfaction of the surroundings is not misconstrued. The phrase "good atmosphere" might be confusing in the context of an aircraft cabin (for example, "atmosphere" may be taken as literally referring to the air quality within the cabin.).

Design is another area of commonality among airlines; operators have very limited control over the design of aircraft interiors. Since LCCs operate similar equipment, it is expected that interior design would be similar. However, one aspect that can be customised is the colour schemes used within the cabin<sup>18</sup>. At the time of

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<sup>18</sup> These colour schemes promote strong brand recognition and have become a very important part of each airlines brand identity.



survey distribution, Ryanair supported a distinctive interior design, with dark blue and very bright yellow colour themes, safety briefing cards that are glued to the back of the seat, and removed window shades. EasyJet had a more traditional approach with its soft orange colour themes and the addition of business class seating.

Other passengers may have the potential to affect how passengers evaluate their overall experience with an airline (such as seeing a passenger mistreated by airline staff could lead to a negative impression of the airline). With large numbers of passengers sitting or queueing within close proximity of each other, flying is inherently a semi-social experience. This makes this line of questions extremely interesting in this context. It will be interesting to see to what degree the social elements of the air travel affect passengers' overall perception of airline quality. To date, HiQUAL is the only Service Quality instrument to take social factors into account.

#### *Service Environment Quality*

*I would say that [this airline's] [cabin] environment is one of the best in the industry.*

*I would rate [this airline's] [cabin] environment highly.*

#### *Ambient Conditions*

*At, [this airline], you can count on their being a [pleasant] atmosphere [within the cabin].*

*[This airline's] [cabin] layout serves my purposes.*

*[This airline] understands the design of its [aircraft cabin] is important to me.*

#### *Design*

*[This airline's] [cabin] layout never fails to impress me.*

*[This airline's] [cabin] layout serves my purposes.*

*[This airline] understands the design of [the cabin] is important to me.*

#### *Social Factors*

*[This airline's] other customers do not affect its ability to provide me with good service.*

*[This airline] understands that other patrons affect my perception of its service.*

*I find [this airline's] other customers consistently leave me with a good impression of its service.*

#### **Outcome Quality**

Outcome Quality is probably the least understood of the three sub-dimensions of Service Quality in this context. This may be because the outcome quality of passage on an airline is not often as varied as in other service sectors (for example: when getting a haircut). The outcome of a flight on an airline is the safe arrival at the destination airport (preferably on time). Waiting Time could also be likened to an airline's On-Time Performance, an important factor in the AQR.

#### *Outcome Quality*

*I always have an excellent experience when I [fly with] [this airline].*

*I feel good about what [this airline] provides [for] its customers.*

#### *Waiting Time*

*Waiting time at [this airline] is predictable.*

*[This airline] tries to keep waiting time to a minimum.*

*This [airline] understands that waiting time is important to me.*

### *Tangibles*

The following questions require the respondent to think of an important aspect of airline service and then evaluate their airline based their perception of the service.

*I am constantly pleased with the \_\_\_\_\_ at [this airline].*

*I like [this airline] because it has the \_\_\_\_\_ that I want.*

*[This airline] knows the kind of \_\_\_\_\_ its customers are looking for.*

### *Valence*

*Directions: These questions refer to whether you think the outcome of your experience was either good or bad. Please choose the number which best reflects your perception of whether the experience was good or bad.*

*When I leave [this airline], I usually feel that I have had a good experience.*

*I believe [this airline] tries to give me a good experience.*

*I believe [this airline] knows the type of experience its customers want.*

### ***Service Quality***

Finally, HiQUAL measures Service Quality directly across two items:

*I would say that [this airline] provides superior service.*

*I believe [this airline] offers excellent service.*

### **6.3.3 Additional Questions**

In addition to the HiQUAL framework, this survey included several questions relating to the passengers' experience. These questions were generated from the qualitative study (Chapter Seven). Each of the determinants identified in the qualitative study were transformed into general questions about the experience. These questions were included for a deeper understanding of the themes discovered in the content analysis

study. Each response was then evaluated on a five-point Likert-type scale from Not Important to Very Important with the middle value a No Opinion option.

This section recorded opinions on seven variables: On-Time Performance, Ticket Price, In-Flight Services, Aircraft Cabin Crowdedness, Route Capacity, Allocated Seating and Baggage Policy. These questions were evaluated separately from HiQUAL later in this thesis (Chapter Eight) during the construction of ALSI. The justification for these variables comes from the qualitative study in Chapter Seven and the AQR (Bowen & Headley, 2007; Bowen et al., 1991, 1992; Bowen & Headley, 1993).

## **6.4 Data Collection**

### **6.4.1 The Population**

The domain of this study was anyone who had flown on a LCC operating within the United Kingdom. The geographic restriction was implemented to later help in the collection and consistency of the secondary data (as data would only have to be collected in the UK) that was to be used to develop the purely objective measurement of LCC Service Quality in Chapter Eight. The UK's Civil Aviation Authority (CAA) collects different data than some of its European counterparts. Corporate annual filings was also utilised as a source of secondary data. It is preferable to use data from the same nation as accounting procedures can vary widely, even within the European Economic Area. This allowed for more consistency in the data for the later study.

### **6.4.2 The Sample**

This study employed two non-probability sampling techniques: convenience sampling and snowball sampling. The frame (indirect-element) for the convenience sample was students and staff at major Scottish Universities. This cross-section was chosen largely

for ease of access. The snowball effect comes from distribution through popular social networking websites (in this case, Facebook).

The convenience and snowball sampling techniques was largely expected to reach university students. A student sample may be representative of the future of the airline consumer market (Helm, 2013). Furthermore, all LCCs identified in this study have multiple routes departing from Edinburgh International, Glasgow International, or Prestwick airports which are easily accessible to the students surveyed in this study. The survey was initially distributed to staff and students at Scottish universities via email. The survey was also posted to the University of Stirling's student web portal where it appeared on each student's home page. This site is readily accessed by university students and frequently hosts student surveys. The University hosts over 11,600 students (8,200 undergraduate and 3,400 post-graduate) from 115 nationalities, all of which have easy access to the University's highly visible student portal. This diversity made this a very attractive sampling pool.

The snowball sampling strategy placed the survey on popular social media websites and asked members to take the survey and share it with friends. It is possible that this reached a wider audience outside of the University of Stirling and allowed for non-students to take the survey. However, it was expected that the majority of respondents would be current university students or recent graduates. While the majority of respondents were expected to be students, non-students were also welcome to respond.

Posting the survey to aviation specific forums was also considered. While these forums could provide an ideal audience for the survey, this idea proved difficult for two reasons: firstly, it was very difficult to get attention from many of the forums as many of them have strict guidelines for posting. Online forums typically have personalised communities; to receive enough responses to a survey, it would be necessary to become familiar to that community through regular posting on the forum. Secondly, the

forums that could be receptive were usually extremely biased towards the LCC industry or one of its players (for example, the website: IHateRyanair.com). Due to these reasons, the idea of forum specific posting was abandoned.

Google recently introduced a new product to help market researchers: Google Surveys. The survey distribution is through a mobile application created by Google whereby the user is paid (as a credit to their Google Play Store account) for responding. Google also applies its own proprietary demographic collection methods to each survey and offers an analysis service. This could be a very powerful tool to researchers; however, at £3.50 per response for every ten questions, this service is cost prohibitive for this application.

The questionnaire was administered in electronic form. The questions and appropriate scales were re-created as a spreadsheet “form” in Google Documents. This web-based software had the advantage of being easy to distribute through electronic channels, while instantaneously recording the results of the survey. Additionally, as this is a web-based Google product, the content is secure (possibly more so than if stored locally) and easily accessible from any location.

#### **6.4.3 Analysis of the Data**

The data from the survey was compiled in an electronic form automatically as responses were entered. Data was then stored as a spreadsheet. The data was easily exportable to SPSS or other statistical software as needed. Analysis of the original HiQUAL study employed LISERAL 8, a popular Structural Equation Modelling (SEM) software package; however, this research utilised a comparable software package, IBM SPSS Amos 19, because of its availability. The two packages are similar and should produce similar results.

#### 6.4.4 Distribution

The survey was circulated to students outside the University of Stirling through email contact during May, 2014. The business school administrators for The University of Glasgow, The University of St. Andrews, The University of Edinburgh and The University of Aberdeen agreed to distribute the survey to their post-graduate students. Napier University and Queen Margaret University were unable to help due to a lengthy approval process from their ethics committees. Glasgow Caledonian University was unwilling to help, yet did not specify a reason. Because of the difficulty of pushing a survey to students, the response rate was relatively low at only 3.3% (n=5) of all responses returned through the email campaign (see Section 7.4.5 Demographics of Respondents for examination of this data).

Following distribution via email, the survey was posted to The University of Stirling's MyPortal. There were multiple responses per day for a period of around two weeks. After this time, the frequency of incoming responses began to slow, largely because the website only had space to promote two surveys at a time on the main page. The survey could be accessed through the homepage, yet doing so required students to actively seek the survey. Because the frequency of responses completely stopped once the survey had disappeared from the homepage, it appeared that there might have been impulsive behaviour driving the responses. Therefore, the survey was taken offline with n=150 responses, once response frequency has diminished.

The sample (n=150) was initially screened for non-responses and unengaged respondents as recommended (Pallant, 2010, p. 43). There were no errors, invalid or missing cases in the data file. Only one survey response was incomplete. In this situation, the respondent did not answer the initial screening question: "Have you flown with one of these airlines: Ryanair or EasyJet?" After examining the respondents' answers, it was determined that they indeed had flown with one of those airlines (particularly because the answer to Q3 was Ryanair). Thus the response was altered to

include a “yes.” This was the only discrepancy in the data. All respondents seemed engaged in answering the survey.

Descriptive statistics indicate normally distributed results across all of the variables. Skewness was within the upper limits of what is generally accepted (+1 / -1). Kurtosis of the individual items was also within acceptable limits (+1 / -1). However, the sample size is large enough to reduce any risks associated with non-ketotic results (Tabachnick and Fidell, 2007, p.80). The combined items demonstrated characteristics of normalcy (Table 6.1) as the individual items. This characteristic of the data makes examining the items grouped as variables (as opposed to on an individual basis) much more attractive as these characteristics allow for the assumption of similar results while decreasing confusion and reducing the overall chance of error.

Table 6.1

*Descriptive Statistics for Survey Data*

Descriptive Statistics									
Factor	N	Mean	Mean SE	Standard Deviation	Variance	Skewness	Skewness SE	Kurtosis	Kurtosis SE
Combined Expertise	150	5.047	0.108	1.322	1.748	-0.547	0.198	-0.113	0.394
Combined Tangibles	150	4.903	0.109	1.330	1.770	-0.551	0.198	-0.068	0.394
Combined Attitude	150	4.873	0.225	1.540	2.370	-0.991	0.347	0.337	0.681
Combined Interaction Quality	150	4.833	0.125	1.531	2.345	-0.691	0.198	-0.059	0.394
Combined Valence	150	4.747	0.122	1.492	2.225	-0.534	0.198	-0.305	0.394
Combined Waiting Time	150	4.693	0.125	1.527	2.331	-0.514	0.198	-0.215	0.394
Combined Behaviour	150	4.449	0.126	1.542	2.377	-0.459	0.198	-0.256	0.394



Combined Outcome Quality	150	4.230	0.133	1.628	2.650	-0.240	0.198	-0.764	0.394
Combined Social Factors	150	4.043	0.102	1.251	1.565	0.148	0.198	-0.579	0.394
Combined Design	150	3.767	0.095	1.161	1.348	0.220	0.198	-0.120	0.394
Combined Ambient Conditions	150	3.638	0.112	1.370	1.878	0.134	0.198	-0.484	0.394
Combined Service Quality	150	3.587	0.142	1.743	3.039	0.157	0.198	-0.878	0.394
Combined Service Environment Quality	150	3.163	0.121	1.481	2.193	0.375	0.198	-0.412	0.394
Valid N (list wise)	150	-	-	-	-	-	-	-	-

#### 6.4.5 Demographics of Respondents

The final question of the survey asked where the respondent obtained the questionnaire. This allows for the determination of the effectiveness of the push/pull strategy. In doing so it is interesting to discover which method had the strongest response rate. Results of the three methods were as follows:

- Email (n=5)
- Facebook (n=29)
- MyPortal (n=116)

Table 6.2 illustrates a much stronger response rate from the pull strategy (placing the survey on The University of Stirling's student portal: n=116; 77.3%). The response rate from the snowball sample (Facebook) was adequate (n=29; 19.3%). This was much more lucrative than emailing individual graduate students through their university's department which generated limited results (n=5; 3.3%).

The demographics revealed most of the responses came from undergraduate students (n=73; 48.6%; Table 6.2). Almost half of the respondents were aged between 18-25 (n=74; 49.3%; Table 6.2), although all age groups had at least 10 respondents. As

the target sample was university students it was expected that the majority of respondents would be below the age of 25; however, it is interesting to note the small number of responses from post-graduate students at the Masters level. There were a greater percentage of non-student responses (n=33; 22%) than from the post-graduate (Masters) students combined (n=17; 11.3%). This may be due to the social networking reaching non-students, as well as university staff responding to the link on the University of Stirling's website.

The airline that respondents most selected to discuss in the survey was EasyJet (Table 6.2). There was n=91 (60.7%) responses relating to EasyJet and n=59 (39.3%) responses relating to Ryanair. Flight frequency (Table 6.2) also revealed that around half the respondents (50.7%) took two or fewer trips on their airline of choice per year; while the other half of respondents (49.3%) took between three and six trips on each airline per year.

Table 6.2

*Consolidated Overview of Sample Profile*

<b>Survey Location</b>	
Email	5
Facebook	29
MyPortal	116
Total	150
<b>Student Status</b>	
Undergraduate	73
Postgraduate Research	22
Postgraduate Taught	12
Recent Graduate	10
Not a Student	33
Total	150
<b>Age Group</b>	

18-21	37
22-25	37
26-30	22
31-41	26
42-54	10
OVER 55	18
Total	150
<hr/>	
Airline Preference	
EasyJet	91
Ryanair	59
Total	150
<hr/>	
Flight Frequency	
1-2 Flights per Year	51
3-4 Flights per Year	36
5-6 Flights per Year	16
More than 6 Flights per Year	22
Not Often	25
Total	150

## 6.5 Testing the Model

Brady and Cronin (2001) determine that their model was “suitable for testing through traditional structural equation modelling techniques” (p.42); therefore, this HiQUAL application has been assessed in its entirety using IBM SPSS Amos (version 21), a modern Structural Equation Modelling package. This package was chosen for its availability.

### 6.5.1 Adjudging Model Fit

While Brady and Cronin examined their original HiQUAL model in two separate steps (the second-order factors followed by the third-order factors), Amos allowed for the evaluation of the model in its entirety. There are several goodness-of-fit indicators

available in modern Structural Equation Modelling (Table 6.3). Each has its advantages and disadvantages, so it is the duty of the researcher to justify which of these indicators are chosen. The Amos software reports several indices; however, the Comparative Fit Index is the most appropriate for this study as it performs well with sample sizes of  $n < 250$  (Hooper, Coughlan, & Mullen, 2008; Tabachnick & Fidell, 2007). The overall model fit was acceptable (CFI=0.85); however this is quite close to the lower limit of theoretical acceptability (Schermelleh-Engel & Moosbrugger, 2003).

Table 6.3

*Model Fit Summary*

CMIN					
Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	117	1178.208	548	0.000	2.150
Saturated model	665	0.000	0		
Independence model	70	6285.509	595	0.000	10.564
Baseline Comparisons					
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	0.813	0.796	0.890	0.880	0.889
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000
Parsimony-Adjusted Measures					
Model	PRATIO	PNFI	PCFI		
Default model	0.921	0.748	0.819		
Saturated model	0.000	0.000	0.000		
Independence model	1.000	0.000	0.000		
NCP					
Model	NCP	LO 90	HI 90		
Default model	630.208	535.119	733.028		
Saturated model	0.000	0.000	0.000		
Independence model	5690.509	5439.200	5948.307		
FMIN					
Model	FMIN	F0	LO 90	HI 90	

Default model	7.907	4.230	3.591	4.920
Saturated model	0.000	0.000	0.000	0.000
Independence model	42.185	38.191	36.505	39.922
RMSEA				
Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.088	0.081	0.095	0.000
Independence model	0.253	0.248	0.259	0.000
AIC				
Model	AIC	BCC	BIC	CAIC
Default model	1412.208	1486.757		
Saturated model	1330.000	1753.717		
Independence model	6425.509	6470.110		
ECVI				
Model	ECVI	LO 90	HI 90	MECVI
Default model	9.478	8.840	10.168	9.978
Saturated model	8.926	8.926	8.926	11.770
Independence model	43.124	41.438	44.854	43.424
HOELTER				
Model	HOELTER .05	HOELTER .01		
Default model	77	80		
Independence model	16	17		

### 6.5.2 Path Analysis

The factor loadings are reported in Table 6.4. All estimates were standardised and returned significant p-values ( $p < 0.05$ ). The model returned strong estimates between all of the components of the model (Figure 6.1). The strongest relationship within the second-order factor structure was between Service Quality and Outcome Quality (0.92) although there is only a slight difference between this and the relationships between Service Quality and Environmental (0.84) or Interaction Quality (0.82),

The factor loadings between Service Quality and the second-order factors ranged between 0.82 (Interaction Quality), 0.84 (Physical Environment Quality) and 0.92 (Outcome Quality). While the factor loading (Table 6.4) for Service Environment Quality was only 0.7 the regression weight (0.82) was sufficient to support the inclusion of the path.

The third-order factor structure returned stronger estimates than the second. The Outcome Quality sub-dimensions were the most varied ranged from 0.72 (Waiting Time) to 1.01 (Tangibles) and valence (0.97). Design (0.96) was the strongest factor under Physical Environment Quality (0.90) followed by Ambient Conditions and Social Factors (0.90). Interaction Quality contained some of the strongest paths in the model with Behaviour (0.98) having the highest estimates followed by Attitude (0.98) and Expertise (0.92).

Brady and Cronin (2001) found a high degree of validity in their original model. Since this study employed the original HiQUAL model in its entirety, a high degree of validity should also be expected. There was a high degree of convergent validity as evidenced by the strength of the factor loadings factor loadings ( $>.5$ ). Discriminant validity was observed by comparing the factor covarances.

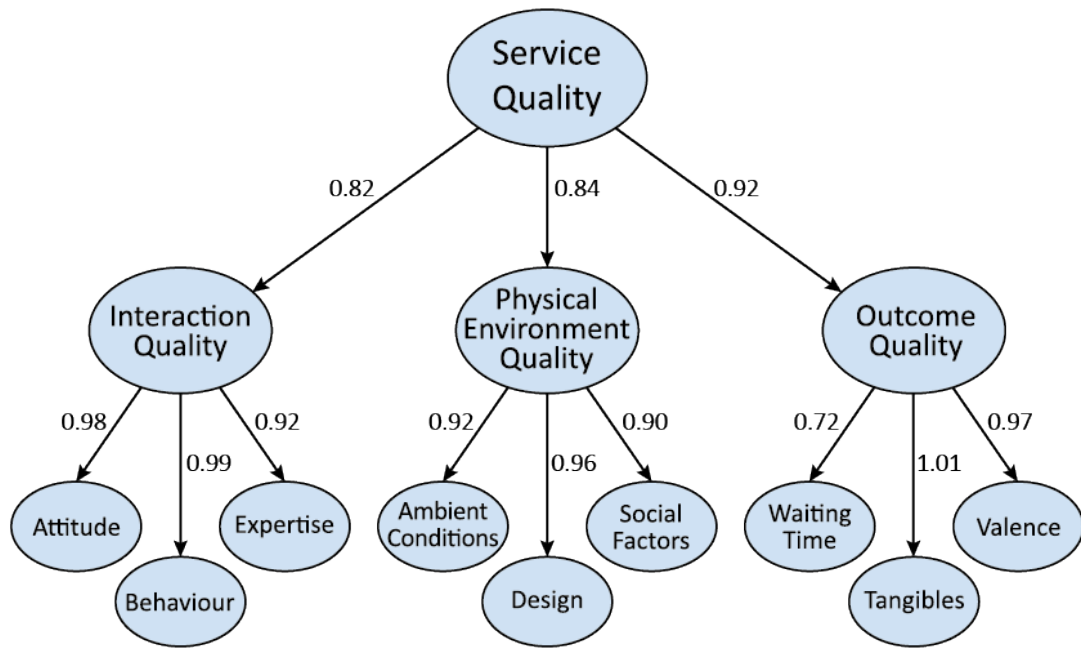


Figure 6.1. LCC HiQUAL Model

Table 6.4

*HiQUAL Factor Loadings*

Factor Loadings			Estimate	S.E.	C.R.	P
Environment	←	ServiceQuality	0.70	0.05	12.03	***
Outcome	←	ServiceQuality	0.90	0.05	15.54	***
Interaction	←	ServiceQuality	0.67	0.06	11.10	***
Attitude	←	Interaction	1.11	0.07	15.11	***
Behaviour	←	Interaction	1.10	0.07	14.82	***
Expertise	←	Interaction	0.97	0.07	13.43	***
AmbientConditions	←	Environment	0.94	0.07	13.56	***
Design	←	Environment	0.74	0.07	10.23	***
SocialFactors	←	Environment	0.69	0.08	8.93	***
WaitingTime	←	Outcome	0.72	0.07	10.25	***

Tangibles	←	Outcome	0.57	0.06	9.23	***
Valence	←	Outcome	0.72	0.06	11.71	***
Attitude.em	←	Attitude	1.00			
Attitude.sp	←	Attitude	1.00	0.05	19.88	***
Attitude.r	←	Attitude	0.93	0.05	17.84	***
Behaviour.em	←	Behaviour	1.00			
Behaviour.sp	←	Behaviour	0.98	0.05	21.76	***
Behaviour.r	←	Behaviour	1.00	0.04	24.32	***
Expertise.em	←	Expertise	1.00			
Expertise.sp	←	Expertise	0.98	0.05	18.52	***
Expertise.r	←	Expertise	0.73	0.05	14.72	***
AmbientConditions.em	←	AmbientConditions	1.00			
AmbientConditions.sp	←	AmbientConditions	0.75	0.09	8.82	***
AmbientConditions.r	←	AmbientConditions	0.96	0.07	14.11	***
Design.em	←	Design	1.00			
Design.sp	←	Design	0.64	0.11	6.05	***
Design.r	←	Design	1.20	0.12	9.64	***
SocialFactors.em	←	SocialFactors	1.00			
SocialFactors.sp	←	SocialFactors	0.86	0.14	6.18	***
SocialFactors.r	←	SocialFactors	1.21	0.14	8.77	***
WaitingTime.em	←	WaitingTime	1.00			
WaitingTime.sp	←	WaitingTime	0.99	0.06	15.68	***
WaitingTime.r	←	WaitingTime	0.80	0.06	12.16	***
Tangibles.em	←	Tangibles	1.00			
Tangibles.sp	←	Tangibles	1.14	0.16	7.25	***
Tangibles.r	←	Tangibles	1.80	0.17	9.20	***
Valence.em	←	Valence	1.00			
Valence.sp	←	Valence	1.25	0.11	11.51	***
Valence.r	←	Valence	1.38	0.11	12.85	***
InteractionQuality.b	←	Interaction	1.00			



InteractionQuality.a	←	Interaction	0.99	0.08	12.86	***
ServiceEnviroQual.b	←	Environment	1.00			
ServiceEnviroQual.a	←	Environment	0.93	0.07	14.34	***
OutcomeQual.b	←	Outcome	1.00			
OutcomeQual.a	←	Outcome	0.96	0.05	18.76	***
ServiceQual.a	←	ServiceQuality	1.00			
ServiceQual.b	←	ServiceQuality	1.04	0.05	19.86	***

Table 6.5

*Standardised regression weights (default model)*

Factor Loadings			Estimate
Environment	←	ServiceQuality	0.84
Outcome	←	ServiceQuality	0.92
Interaction	←	ServiceQuality	0.82
Attitude	←	Interaction	0.98
Behaviour	←	Interaction	0.96
Expertise	←	Interaction	0.92
AmbientConditions	←	Environment	0.92
Design	←	Environment	0.96
SocialFactors	←	Environment	0.90
WaitingTime	←	Outcome	0.72
Tangibles	←	Outcome	1.01
Valence	←	Outcome	0.97
Attitude.em	←	Attitude	0.94
Attitude.sp	←	Attitude	0.90
Attitude.r	←	Attitude	0.86
Behaviour.em	←	Behaviour	0.95
Behaviour.sp	←	Behaviour	0.92

Behaviour.r	←	Behaviour	0.95
Expertise.em	←	Expertise	0.93
Expertise.sp	←	Expertise	0.91
Expertise.r	←	Expertise	0.83
AmbientConditions.em	←	AmbientConditions	0.91
AmbientConditions.sp	←	AmbientConditions	0.63
AmbientConditions.r	←	AmbientConditions	0.85
Design.em	←	Design	0.74
Design.sp	←	Design	0.52
Design.r	←	Design	0.81
SocialFactors.em	←	SocialFactors	0.71
SocialFactors.sp	←	SocialFactors	0.55
SocialFactors.r	←	SocialFactors	0.81
WaitingTime.em	←	WaitingTime	0.93
WaitingTime.sp	←	WaitingTime	0.88
WaitingTime.r	←	WaitingTime	0.76
Tangibles.em	←	Tangibles	0.63
Tangibles.sp	←	Tangibles	0.67
Tangibles.r	←	Tangibles	0.92
Valence.em	←	Valence	0.75
Valence.sp	←	Valence	0.88
Valence.r	←	Valence	0.96
InteractionQuality.b	←	Interaction	0.84
InteractionQuality.a	←	Interaction	0.84
ServiceEnviroQual.b	←	Environment	0.88
ServiceEnviroQual.a	←	Environment	0.86
OutcomeQual.b	←	Outcome	0.92
OutcomeQual.a	←	Outcome	0.91
ServiceQual.a	←	ServiceQuality	0.92
ServiceQual.b	←	ServiceQuality	0.94

---

Table 6.6

*Correlations of observed variables*

Attitude.em	
Attitude.sp	
Attitude.r	
Behaviour.em	
Behaviour.sp	
Behaviour.r	
Expertise.em	
Expertise.sp	
Expertise.r	
ambientConditions.em	
ambientConditions.sp	
ambientConditions.r	
Design.em	
Design.sp	
Design.r	
SocialFactors.em	
SocialFactors.sp	
SocialFactors.r	
WaitingTime.em	
WaitingTime.sp	
WaitingTime.r	
Tangibles.em	
Tangibles.sp	
Tangibles.r	
Valence.em	
Valence.sp	
Valence.r	
InteractionQuality.b	
InteractionQuality.a	
erviceEnviroQual.b	
erviceEnviroQual.a	
OutcomeQual.b	
OutcomeQual.a	
000	
738	1.000
742	0.831 1.000
663	0.566 0.543 1.000
693	0.580 0.555 0.903 1.000
568	0.664 0.672 0.398 0.418 1.000
564	0.652 0.687 0.461 0.468 0.869 1.000
752	0.841 0.864 0.518 0.513 0.708 0.708 1.000
753	0.773 0.752 0.523 0.525 0.609 0.579 0.847 1.000
605	0.663 0.672 0.414 0.453 0.591 0.584 0.707 0.673 1.000
755	0.858 0.861 0.563 0.569 0.683 0.678 0.872 0.740 0.667 1.000
546	0.578 0.583 0.471 0.433 0.476 0.443 0.665 0.659 0.502 0.585 1.000
529	0.532 0.591 0.385 0.406 0.422 0.434 0.575 0.541 0.561 0.557 0.646 1.000
447	0.533 0.486 0.294 0.351 0.321 0.539 0.434 0.408 0.577 0.378 0.475 1.000
541	0.665 0.593 0.345 0.383 0.489 0.446 0.615 0.506 0.472 0.631 0.390 0.441 0.646 1.000
555	0.619 0.567 0.345 0.371 0.489 0.453 0.594 0.482 0.548 0.602 0.409 0.501 0.730 0.825 1.000
675	0.558 0.553 0.566 0.606 0.427 0.490 0.532 0.549 0.527 0.545 0.387 0.486 0.342 0.315 0.365 1.000
379	0.412 0.461 0.336 0.359 0.305 0.317 0.362 0.390 0.411 0.415 0.293 0.453 0.298 0.307 0.331 0.481 1.000
576	0.548 0.498 0.478 0.477 0.495 0.459 0.511 0.534 0.508 0.493 0.417 0.412 0.249 0.432 0.449 0.541 0.439 1.000
659	0.543 0.519 0.633 0.681 0.373 0.406 0.438 0.480 0.382 0.516 0.307 0.380 0.273 0.319 0.364 0.643 0.391 0.492 1.000
506	0.475 0.564 0.388 0.368 0.375 0.389 0.517 0.515 0.521 0.496 0.417 0.508 0.337 0.318 0.383 0.356 0.352 0.382 0.356 1.000
630	0.502 0.439 0.546 0.566 0.353 0.330 0.480 0.505 0.449 0.419 0.314 0.340 0.297 0.363 0.408 0.539 0.286 0.499 0.599 0.453 1.000
660	0.621 0.577 0.645 0.687 0.531 0.495 0.602 0.700 0.547 0.611 0.554 0.461 0.339 0.351 0.353 0.605 0.407 0.606 0.599 0.426 0.580 1.000
484	0.388 0.435 0.478 0.467 0.372 0.424 0.393 0.363 0.398 0.293 0.267 0.228 0.297 0.330 0.403 0.268 0.451 0.503 0.169 0.398 0.482 1.000
692	0.573 0.522 0.674 0.681 0.473 0.448 0.536 0.602 0.510 0.531 0.459 0.458 0.346 0.389 0.452 0.632 0.418 0.623 0.683 0.370 0.664 0.763 0.624 1.000
520	0.597 0.601 0.391 0.427 0.656 0.681 0.624 0.512 0.569 0.601 0.437 0.491 0.389 0.498 0.544 0.425 0.284 0.502 0.314 0.391 0.338 0.449 0.338 0.446 1.000
563	0.650 0.650 0.381 0.398 0.703 0.692 0.669 0.542 0.555 0.647 0.490 0.445 0.421 0.574 0.584 0.451 0.293 0.505 0.364 0.374 0.328 0.472 0.325 0.458 0.751 1.000
571	0.661 0.673 0.388 0.406 0.687 0.715 0.686 0.581 0.614 0.665 0.543 0.516 0.433 0.507 0.581 0.502 0.377 0.527 0.420 0.359 0.340 0.475 0.451 0.545 0.769 0.839 1.000
631	0.731 0.778 0.456 0.463 0.704 0.710 0.770 0.627 0.635 0.773 0.536 0.492 0.430 0.571 0.535 0.473 0.397 0.493 0.414 0.493 0.335 0.512 0.351 0.470 0.668 0.745 0.767 1.000
611	0.714 0.734 0.480 0.470 0.712 0.724 0.725 0.567 0.590 0.740 0.521 0.451 0.467 0.612 0.593 0.431 0.373 0.519 0.408 0.432 0.357 0.468 0.366 0.461 0.704 0.790 0.756 0.887 1.000
609	0.748 0.773 0.491 0.518 0.717 0.719 0.753 0.608 0.616 0.768 0.587 0.487 0.426 0.545 0.547 0.527 0.413 0.524 0.457 0.423 0.343 0.519 0.381 0.519 0.712 0.776 0.836 0.892 0.862 1.000
643	0.670 0.681 0.379 0.404 0.795 0.777 0.716 0.652 0.610 0.690 0.517 0.473 0.374 0.552 0.539 0.477 0.272 0.527 0.413 0.432 0.346 0.523 0.357 0.508 0.653 0.736 0.744 0.747 0.759 0.741 1.000
597	0.717 0.718 0.361 0.362 0.697 0.685 0.747 0.653 0.610 0.733 0.602 0.499 0.348 0.522 0.491 0.435 0.314 0.520 0.568 0.427 0.282 0.514 0.295 0.464 0.626 0.711 0.741 0.836 0.779 0.820 0.830 1.000
622	0.723 0.748 0.465 0.483 0.749 0.733 0.738 0.637 0.610 0.775 0.562 0.469 0.403 0.498 0.488 0.481 0.394 0.500 0.413 0.427 0.315 0.544 0.339 0.490 0.666 0.763 0.806 0.877 0.797 0.904 0.780 0.865 1.000

## 6.6 Discussion

This study fulfils the second aim of this thesis by applying a known model of Service Quality to the low-cost airline industry. HiQUAL, with its unique hierarchical structure, provided a detailed look at the relationship of Service Quality to its sub-dimensions. Each factor in the hierarchical structure was confirmed through the survey data. While some of the factor loadings were not as high as others (for example Waiting time at 0.70), they were nonetheless significant. Additionally, it is possible that the strength of these relationships could have been improved with a larger sample size. Therefore, the entirety of the HiQUAL model fits this context.

Demographic results were as expected for a student-centred sample. However; the sampling method did return some interesting results. Given the large student body at The University of Stirling that has easy access to the University's student web portal, the pull strategy naturally had much greater potential than the push strategy given the potential for survey exposure. However, it was not expected to generate such a strong response rate in such a short amount of time (just over one week). The push strategy achieved limited results, only generating five responses. Only speculative reasons for this can be offered. For example, many of the university contacts had warned that students frequently become inundated with survey emails, and response rate would be low. This may have also been further affected by the time of year, as it is a time when many undergraduate and post-graduate students are beginning to publish surveys. Postgraduate response rate may have been low due to a typically higher volume of work than undergraduate students, leaving them with less free time.

The results of the HiQUAL path analysis demonstrate a robust metric that can be easily modified to fit a specific context. All components of the original model were retained in this experiment. Again, this research sought to determine the scales applicability in this context, rather than to reinvent the model; therefore, the models properties were not in question. However, it is interesting, given the context specific

nature of this study, the model remains significant in its entirety. This could add value to any argument for HiQUAL's adaptability and applicability for examining Service Quality in other industry-specific contexts.

While all of the paths confirm that the latent variables fit the data, there is a slight variation in strength within the second-order factor structure. Specifically, the relationship between Service Quality and Outcome Quality is slightly stronger than that of the other two factors (Interaction Quality and Service Environment Quality). However, because these estimates were all of acceptable strength and were significant at the  $p < 0.05$  level the entire model was retained.

Outcome Quality contained the strongest relationship with Service Quality (.92); however, Interaction Quality contained the strongest sub-dimensions. This may indicate that there is more depth to the relationship between airline staff and their interactions with customers than the Physical Environment or Outcome Quality.

Since the Outcome Quality had the most varied sub-dimensions this may indicate a highly variable assessment of airline outcomes from the consumer. This indicates the strength of Tangibility in consumers' evaluation of the low-cost airline experience. Furthermore, the weakest path was Waiting Time (0.72). This may be because of the relatively quick turn-around times for low-cost airlines and point-to-point routing which result in less waiting time for the passengers.

The HiQUAL results provide a clear picture of the importance of each of its factors to Service Quality in the low-cost airline industry. This information could prove useful to airlines wishing to improve their overall Service Quality by highlighting key areas to focus their service strategies.

## 6.7 Limitations

The email campaign to universities outside of the University of Stirling saw limited success. Due to the effort that went into planning and executing this distribution strategy, the low response rate makes it largely ineffective. Additionally, because the majority of responses were students at The University of Stirling, more research is needed to determine if the results are generalisable outside this narrow sampling frame.

The snowball sampling strategy may have limited by the choice of social networking medium chosen. While Facebook is extremely popular, there are certainly several other very active social networking avenues that could have been employed (for example, Twitter) or an online community-based forum such as Reddit. Twitter would have been the second most viable avenue based on its equally large share of the social networking market. However, at the time of this survey, the researcher does not have a Twitter account. Creating a Twitter account and generating “followers” that could pass along the survey, would take considerable time and could have potentially delay the research.

While HiQUAL does provide practitioners with a tool to examine airline quality in-depth, it’s results are not easily understood by, or accessible, to the average consumer. As well, because of a varying sampling frame, these results cannot be accurately compared longitudinally, without significant effort. This naturally limits its applicability as a consumer decision-making tool.

## 6.8 Implications for Future Research

Since this is the first instance in the literature where the applicability of a hierarchical measurement of Service Quality has been applied in the context of the LCC industry, more research needs to be conducted to expand the applicability of such metric to other

industries. This would require testing HiQUAL's application in other industry-specific contexts. Doing so is the only way that SERVQUAL variants can ever be replaced in practise with more appropriate means. It would be interesting to see a comparison of HiQUAL studies between LCCs and traditional carriers; however, doing so was outside the scope of this study. Furthermore, it may be possible to redefine HiQUAL's third-order factors to a more context specific manner. This would further establish the adaptability of HiQUAL. However, as this study demonstrates, the current sub-dimensions have a good fit with LCC industry.

## **6.9 Conclusion**

The purpose of this survey was to apply HiQUAL in a specific context and determine its relevance as an investigative tool for Service Quality for the low-cost airline industry. The model appears to fit the data confirming the original HiQUAL structure in this context. This allows for an illustration of Service Quality in the UK low-cost airline industry. The second-order factor estimates seem to point to an importance of Outcome Quality; however, from this data, no reasoning can be accurately ascertained. Additionally, this study only examines the UK low-cost airline industry as a whole and cannot make any conclusions as to the difference between the two subjects Ryanair and EasyJet.

# CHAPTER SEVEN: FINDING THE DETERMINANTS OF SERVICE QUALITY IN THE LOW-COST AIRLINE INDUSTRY

## 7.1 Introduction

The aim of this chapter is to search for the determinants of Service Quality in the UK low-cost airline industry by qualitatively examining secondary consumer opinion data. A qualitative approach is used to gather in-depth detail about passengers' evaluations of airline quality. Chapter Five: Methodology highlighted the possibility of using secondary consumer opinion publications as a possible source for data. There is now significant online consumer opinion websites dedicated to the airline industry and using such data to investigate consumers' opinions of airline Quality will save considerable time over collecting primary qualitative data. This study also assesses the accessibility of consumer watch groups as possible sources of data when finding the determinants of Service Quality in the UK airline industry.

Consumer watch groups have been around for some time. Their popularity developed in both the UK and North America during the surge of consumerism that followed the Second World War. Monthly publications such as *Which?* and *Consumer Reports* (in the United States) reported on a large variety of goods and service aimed at the general public. These consumer watch group publications grew in popularity until very recently, when personalised customer reviews via the internet took over as the preferred method for customer information (Bakos, 1998; Ratchford, Tulakdar and Lee, 2001; Ward and Lee, 2000).

The industry watchers chosen for this analysis were *Which?*, *Skytrax* and *TripAdvisor*. Although these three industry watchers used in this chapter were certainly not the only available, they were the most informative for this study. They were chosen based on their size, their popularity and because they highlight a range of



methodologies used by industry watch groups. Each one represents a different type or style of industry watcher. Which? represents the established commercial publication that collects primary data and compiles it into monthly subscription magazine. Skytrax represents the web-based, airline specific publication with free access. They collect field data to generate a “star rating” of airlines. TripAdvisor.com is a web-based, free access industry watcher with a more generalised content. It uses customer reviews and also generates a five-point classification of airlines, as well as hotels and other travel specific services.

While each of these Industry Watchers has widely varied methods, they are all easily understood and accessible to the consumer. Even though their methods are not always firmly established in the latest scientific literature, this accessibility and ease of understanding makes them very important and powerful in the marketplace.

## **7.2 Industry Watchers**

### **7.2.1 Which?**

Which? has been testing consumer products and service since 1957. They publish their results in a monthly print magazine, also released in an online format. Which? currently has over 617,000 subscribers and 254,000 online subscribers and is the largest consumer reporting publication in print circulation within the United Kingdom (Which?, 2015). Which? claims to use controlled testing methods “that can be replicated time and again” (Which?, 2015). They employ a wide variety of empirical methods for testing such goods which closely resemble those used in manufacturing quality-control testing, in addition to a variety of qualitative methods to measure services.

The Which? laboratory tests a variety of consumer goods, from toasters to televisions, household cleaners to automobiles. Which claims “lab testing is the best

way of testing products” (Which?, 2015). The Which? laboratory tests products to British and EU standards, at the same time adding criteria they state reflects popular consumer opinion. However, their methodology for determining these criteria is not specified publically.

In measuring services (and some aspects of consumer goods), Which? employs a variety of qualitative techniques, such as surveys, focus groups, in-depth interviews, consumer diaries, expert panels, mystery shoppers and consumer reviews. Which? appears to employ surveys almost universally to measure both consumer goods and services and the survey data frequently contains extremely large sample sizes, as seen in Table 7.1, below (Which?, 2015).

Which? doesn’t highlight details of the construction of its surveys, its sampling frame, or the analytical methods used. Furthermore, there seems to be no third-party evaluation of their methodologies, which leads to the assumption that they keep this information purposefully undisclosed from other companies and industry watchers. This makes it very difficult for any academically motivated research to determine if Which?’s methods are congruent with modern survey methods; however, given their commitment to modern laboratory techniques (Which?, 2015), it is possible that they also hold their qualitative research to the same high standards.

One of the principal advantages of Which? is their power to easily generate very large sample sizes (Table 7.1). While a complete picture of the sampling frame is not apparent, the sampling size is often well within the requirements of modern statistical methods (Adcock, 1997; McDaniel & Gates, 2005, p. 396).

Table 7.1

*Which? Surveys with Sample Sizes*

Opinion Survey Topic	Sample Size
Car reliability and satisfaction	39,292
Telecom providers and the switching process	11,963

Supermarket experiences	11,248
Price comparison website experiences	9,197
Reliability of electronic goods	9,324
Energy company satisfaction	8,271
Wine clubs	4,243
UK visitor attractions	4,239
Experiences with UK train companies	4,027
Dentist service	2,631
Healthy eating and how the government, supermarkets and food industry should tackle the issue	1,995
Experiences of renewing home insurance	1,200
Grocery shopping habits in response to the current economic climate	1,009

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(Which?, 2015)

Given the large reader base, extensive laboratory facilities and impressive sampling power it is very hard to deny the importance of Which? to the marketplace. A recent report by Which? may even have affected the policies of Ryanair. Which? asked over 3,000 customers to rate their experiences with the top 100 (by size) brands in the UK. Ryanair came last (Smith, 2013). They quickly responded via Twitter with a rebuttal that highlighted their massive load factor of over nine million passengers a month, and even directly attacked Which? saying:

“We surveyed over 3m [Three Million] passengers via the Ryanair website last night, only two of them had ever heard of Which? and none of them had ever bought it or read it. Ryanair’s survey conclusively proves that Which? magazine hasn’t got a clue about what air travel consumers actually do, because they’re too busy booking Ryanair’s low-fare, on-time flights to waste time filling in Which? magazines tiny surveys” (Finn, 2013).

Ryanair claims that the sampling frame for the survey did not include very many actual Ryanair customers (Finn, 2013). They illustrate the likelihood that,

Which? readers are of a different demographic than Ryanair Customers. This may be true, however neither Which? nor Ryanair reveal the details of their surveys or the demographics of their sampling frames so any accurate determination of this discrepancy is not possible.

Despite Ryanair's dismissal of the Which? report, they coincidentally made several bold statements at the annual shareholders meeting citing Customer Satisfaction as being the focus of the airlines' policies in the future (some of Ryanair's customer service shortcomings and corporate culture have been highlighted in Chapter Four). Michael O'Leary said directly: "We've got to stop trying to unnecessarily piss people off" (Pogatchnik, 2013). This provides an example of Service Quality driving changes in corporate policy and culture.

### **7.2.2 Skytrax**

Skytrax is an airline and airport quality review website. Founded in 1989, they gather primary data to assess the Service Quality of many airlines and airports around the globe and publish the results yearly as an Airline/Airport Star Rating (Skytrax, 2013c). This system ranks each airline or airport's service from one to seven stars (although no six-star rating has yet been awarded to an airline and the seventh star is merely for statistical purposes). The results are displayed as groups of airlines with similar star ratings. No distinction is made among airlines within groups.

Along with the Airline Star Rating, Skytrax publishes a Consumer Opinion Rating. This offers a similar five-point rating as the Airline Star Rating; however, the data used to calculate it comes directly from the consumer. This is a very important feature of Skytrax, as this data represents first-hand consumer accounts instead of the observations of researchers. As part of the consumer opinion rating, Skytrax requires customers to leave comments, and then makes those comments available to the public (Skytrax, 2013a).

Skytrax is rather ambiguous about their rating methodology. On their website, they explain; “it classifies airlines by the Quality of front-line product and staff service standards, and is recognised as a leading, global Benchmark of airline standards” (Skytrax, 2013d). They claim to use over 800 criteria to evaluate an airline's product and service; however they do not mention what those criteria are or how they are collected or analysed (Skytrax, 2013c). They agree to release detailed information about their methodology only to airlines listed in the rating system. Access to this information is proprietary and only available to the airline directly and no one else. Completing the “methodology request form” returned no response from Skytrax.com.

An indication of their methodology can be obtained from their employment sites. Skytrax regularly employs field data collectors they call “airline and airport audit staff”. These persons fly the routes gathering primary data on the airlines’ service (Skytrax, 2013c). Judging by other Skytrax reports on seat pitch, comfort and layout it is reasonable to assume that “airline auditors” collect a variety of empirical measurements as well as more subjective measurements such as employee friendliness; however, the number of researchers, the frequency of data collection or the sampling distribution are unknown. Key determinants in the final rating include staff Service Quality, seat standards and in-flight entertainment (Skytrax, 2013c). Skytrax evaluates traditional carriers and LCCs alongside one another. This may result in an unbalanced assessment on part of the LCCs if the same criteria are used as with the traditional carriers because the LCCs offer an arguably different service than traditional carriers.

Skytrax.com also has an area for customer reviews. Customers can offer responses to scales on Value for Money, Seat Comfort, Staff Service, Catering and answer a yes/no question as to whether or not they recommend the airline. There is also an area where customers can leave extensive comments about the service. This provides an opportunity to easily and freely collect subjective secondary data that may be used for evaluation of consumers’ experiences.

### 7.2.3 TripAdvisor

With over 120 million reviews and 260 million visitors each month, TripAdvisor.com is the most popular travel website in the world (TripAdvisor, 2015). Consumers can post reviews of hotels, restaurants, and flights. Like Skytrax, TripAdvisor rates airlines based on a five-point scale; however, it does not gather primary data. TripAdvisor users securely log in and rate the experience themselves resulting in a collaborative score for each airline.

The survey that TripAdvisor uses does not conform to any academic scale for Service Quality measurement, it simply asks consumers to rate their experience, across seven variables, on a six-point scale with points one to five ranking from Terrible to Excellent, with point six as a non-response option (TripAdvisor, 2015). These variables relate directly to what TripAdvisor seems to have determined to be important to the airline experience (though they make no reference to how these variables were derived). These variables are Check-In Service, Seat Comfort, In-Flight Amenities, In-Flight Service, Baggage Handling, and Value. The survey also captures consumer opinion relating to airline fees, but on a five-point scale. Importantly, the survey has a space for consumers to write comments. It has a minimum character requirement for the comments section to avoid short responses such as: “Great!” or “Terrible Service!” Respondents are required to answer with a complete thought. These responses are published along with the consumers’ review and allow researchers and other consumers to see what drove the responses to the scaled items.

TripAdvisor’s size and popularity make it very important to the marketplace (TripAdvisor, 2015). Like Skytrax it is easily accessible and understood by the consumer. TripAdvisor’s five-point rating is generated directly from consumers’ responses to questions on their website. Individual responses are tabulated to generate a personal rating for each experience. The availability of customer reviews alongside the five-point scale adds another dimension to the website. Strangely, TripAdvisor only

makes individual comments available for hotels and not airlines (they offer no explanation for the discrepancy). However, there is a TripAdvisor Forum where discussion can be found relating to specific airlines. Searches of forum topics revealed these are usually related to technical aspects or the airline service (such as Ryanair's routing, aircraft type, or claims procedures) and are rarely direct discussions of airline quality.

In addition to providing service reviews, the TripAdvisor website has a flight search function. It performs a meta-search of other travel websites (for example, Expedia, Orbitz, Opodo) as well as airlines' own websites (including Ryanair and EasyJet) and relays that information back to the consumer. TripAdvisor does not associate with the airlines directly and therefore holds no pricing agreements (TripAdvisor, 2015). While it features a "Book Now" button, it does not have its own booking privileges with the airlines. Selecting this button redirects the customer to an external retailer.

### **7.3 Content Analysis Study**

The comments left on consumer review websites can provide an efficient method to determine what consumers' value most in their experiences with LCCs (Mayring, 2004; Yang & Fang, 2004). This study used comments left on the Skytrax website as it is an airline specific industry watcher. While TripAdvisor does collect and rate peoples' perceptions of their airline experience, it does not publish comments relating to those experiences; therefore, Skytrax will be the single source of data for this study.

The analysis can be performed using both manual and computer techniques (Morris, 1994), however this analysis employed NVivo 10 software, the latest development of qualitative data management software from QSR. This program helps with coding through its word frequency queries and also reduces the time and error rate associated with manual coding.

Skytrax collects comments and opinions left by consumers on their website. At the time of data collection, there were a total of 75 comments available for Ryanair and 61 available for EasyJet. The comments are over a range of dates within the most recent six-month period. Comments on the Skytrax website were only available from 9/9/2013 until the day of retrieval, 21/10/2013.

Skytrax collects six points of data: customer name (initial and surname), country of origin, customer's rating of the airline (on an absolute scale of 1 to 10), value for money (five-point), seat comfort (five-point), staff service (five-point), catering (five-point), whether or not they would recommend this airline (yes/no) and customer's comments. They use these data only to augment the primary data collected by their field researchers (Skytrax, 2013c). Skytrax averages the customers' ratings into the Customer Review Score presented on a one to 10 scale as integers (as opposed to the absolute values entered by the consumers).

Analysis began by reading the comments relating to Ryanair or EasyJet available on the website and taking systematic notes on the general topics highlighted in the consumers' comments. The comments were entered into a spreadsheet for input into the NVivo 10 software. NVivo created super-nodes for each airline and all of the comment data was imported into the relevant node.

The comments were then split into two sub-nodes: those that would recommend and those that would not recommend the airline. This distinction was required to be made by the respondent when leaving their comment on the Skytrax website. This was done so similarities between the two groups could be evaluated. If a topic appeared in both groups, then it may be something that could either add or detract from the experience and should therefore be treated as an important determinant of the low-cost airline experience. This will highlight complete determinants of airline quality, not simply factors that effect only positive or negative experiences. This distinction is important if these determinants are to be used in



further research where factors that could potentially add or detract from the experience may be necessary (such as the construction of an objective measure of airline quality in Chapter Eight of this thesis). Within the “Would Not Recommend” group, topics that seemed to detract from the airline travel experience or that led to an evaluation of poor quality were further coded into sub-nodes. In the “Would Recommend” group, topics that seemed to add to the experience or lead to a positive evaluation of Service Quality were further coded into sub-nodes.

## **7.4 The Determinants**

Most of the nodes coded seem to repeat themselves between categories. This repetition is found between airlines as well. This uniformity adds confidence to the node selection and allows for the clear identification of the key determinants of Service Quality between Ryanair and EasyJet.

The determinants were chosen systematically by reviewing the personal journal written when reading the Skytrax comments and comparing them to the word frequency queries. The comments were investigated for repeating themes directly relating to the customers’ experiences. Notes were compared across the “Would Recommend” and “Would Not Recommend” groups to highlight similarities. These similar themes both add and detract from the airline experience. Once identified, the themes were compared to the word frequency queries to illustrate the key determinants of airline quality. Highlighted words in the word frequency query, which were related to the themes highlighted in the personal journal, were then judged to be a key determinant of Service Quality in the low-cost airline industry.

### **7.4.1 Overview: Ryanair and EasyJet**

The Ryanair comments (n=75) were the first analysed. Initial separation of the comments into “Would Recommend” and “Would Not Recommend” nodes revealed

that the majority of customers would not recommend Ryanair (59% would not recommend, 41% would recommend). The “Would Not Recommend” comments were the first to be coded. Coding of the “Would Not Recommend” group (n=44) showed that the majority referenced Staff Friendliness, Check-In and Boarding, Baggage (the handling of baggage and the application of rules), Extra Fees, and Seating (as discussed in Chapter Four, Ryanair charges for assigned seats). Most comments involved some complaint about staff friendliness (mostly relating to airport staff). Of the complaints, the treatment of baggage and the application of strict rules relating to carry-on baggage and weight limits of checked-bags and the fees that result from non-adherence to the rules were of major concern. There also appeared to be some concern over inconsistent application of the baggage rules. Many of these comments were from first time Ryanair customers who were unfamiliar with the baggage and check-in rules; the unfamiliarity was Ryanair’s baggage system created confusion and stress for the passengers resulting in a negative experience.

The “Would Recommend” group was coded in a similar fashion. These passengers made reference to Ryanair’s Staff Friendliness, On-Time Performance and Value for Money. A significant number of responses stated that they did not understand negative public opinion of Ryanair. These customers did not report any problems with Ryanair’s baggage or check-in policies and seemed to have mostly been experienced travellers.

The group that would recommend Ryanair seemed generally pleased with the airline’s overall service, to the degree that they often could not understand people’s complaints (n=11). Most of these passengers had flown with Ryanair beforehand, or expressed some knowledge of Ryanair’s policies and procedures.

NVivo coding for EasyJet comments began in the same manner as Ryanair. The “Would Not Recommend” group (n=22) also yielded a similar word frequency query to Ryanair. The final coding reveals passengers were most concerned with: Staff

Unfriendliness, Baggage, Check-In and Boarding, and Inconsistent Application of Rules. The Inconsistent Application of Rules node is almost universally related to carry-on baggage and the fees associated with baggage.

Coding of the “Would Recommend” group (n=39) began as before. Comments about Staff Friendliness were the most common, with On-Time Performance, Check-In and Boarding and The Aircraft Cabin and Seating being the most common topics, of which Staff Friendliness, Value for Money and On-Time Performance were most positively commented on.

Therefore, this study identifies four key determinants of airline quality: Baggage Handling and Policy, Boarding and Check-in, Penalty Fees and Application of Policy and Staff behaviour. These represent the factors that contributed to the passengers’ perception of the low-cost airline experience. They are loosely comparable to some of the accepted theoretical conceptions of Service Quality and could possibly have practical implications in constructing an objective measurement of Service Quality.

#### **7.4.2 Baggage Handling and Policy**

Both LCC’s have very strict requirements for passenger baggage. Passengers are typically limited to one carry-on bag and there is a charge for checked baggage (per 15 kilos). The majority of passengers who complained about baggage charges simply did not adhere to Ryanair’s strict guidelines. Many customers state their ignorance to baggage rules, yet many seem to knowingly violate the policy and still complain. Non-compliance carries with it an additional fee from both Ryanair and EasyJet and this seems to upset the customers. They frequently see it as unfair and punitive.

This non-compliance fee also extends to hand luggage. Low-cost carriers are very strict regarding the dimensions of carry-on baggage (for example, Ryanair has a maximum dimension size of 55 x 40 x 20 cm, which incurs a £50 charge if exceeded).

Passengers may complain that the airline is being unfair and over-cautious if these rules are strictly enforced. However, if the dimension rules are not adhered to, an individual with a particularly large bag may take up additional overhead cabin space resulting in a negative experience for a fellow passenger.

Although passengers may complain about an additional fee to include checked baggage, this strategy works well for the low-cost carrier model. As LCC flights are point-to-point and short-haul (Ryanair's flights rarely exceed four hours) many individuals are using Ryanair for "long weekend" holidays where limited baggage is not an issue. By splitting the price and including baggage as an excess cost, "long weekend" passengers can feel they are better managing their costs, resulting in a more positive experience.

This study highlights a clear importance of passenger's baggage, their interactions with staff over the baggage and the airlines' policies relating to baggage to their interpretation of the airline experience. Baggage Handling and Policy may be conceptualized as a measurement of Functional Quality (Gronroos, 1982, 1984) and as well could relate to four of the five SERVQUAL factors (Reliability, Responsiveness, Empathy and Assurances). Within the HiQUAL framework, it could be affecting Outcome Quality and Interaction Quality. Further examination on the next chapter may reveal its relationship to the HiQUAL framework. Because some of the elements of baggage are quantifiable (such as maximum allowable weight or volume) it is possible that this determinant could be incorporated in an objective measure of Service Quality later in this thesis.

### **7.4.3 Boarding and Check-In**

Ryanair's boarding policy has been described as a "mad rush" to the gate with most of the passengers trying to get to the front of the line thereby giving them the first choice of seats and places to store their baggage. This process is sometimes referred to as

“cattle class” and comments frequently refer to extremely rude behaviour on part of other passengers:

“Coming back was like a cattle market! All crammed into a waiting area, so hot, people pushing and queue jumping, priority went through and some passengers that were not priority pushed their way in and were not stopped, what is the point of paying when you can just push in?”

“At one point it was a free for all. No better than a cattle market.”

The EasyJet comments about seating were mostly positive. In contrast to Ryanair’s “cattle class” boarding, EasyJet now operates with assigned seating. It is possible that this creates less disorder when boarding the aircraft than general boarding (as seen in Ryanair). Passengers can still purchase priority boarding and exit row seats with extra legroom. Most of the “Would Recommend” category state they had purchased priority boarding (which includes an assigned seat) and this seemed to have a positive effect on the passengers’ overall experience with the airline. Having assigned seats and not being subjected to “cattle class” most likely accounts for the more positive comments for EasyJet. Furthermore, EasyJet attributes its recent raise in passenger yield and profits to assigned seating having improved the overall customer experience (EasyJet PLC. Annual Report: 2012). However, one customer in particular offered a unique perspective on EasyJet's seating policy:

“The introduction of allocated seating seems to have made the whole boarding process more relaxed, though it does mean that you can no longer vet the passengers in your immediate vicinity before sitting down: on one of our flights we had to suffer seat kicking children behind us with parents who took no notice.”

Boarding has the potential to be a strong influence in Service Quality for a LCC. In general, having assigned seats would allow for better boarding practices that were more efficient and potentially could result in a more positive passenger experience. For example, there are a number of different boarding patterns, such as back-to-front by

row, block boarding or alternating back-to-front which can improve boarding efficiency; this is not possible with unassigned seating. By improving boarding efficiency, not only do passengers receive a higher Service Quality experience, but the airline decreases turnaround time and increased profits (more flights can be scheduled in one day, and expenses are reduced).

Conversely, poor boarding practices can cause a number of difficulties for passengers, decreasing the LCC Service Quality experience. If seating is unassigned, boarding can be chaotic. Passengers not boarding in a specific order may have to wait to wait to pass other passengers in the aisle (this can take additional time if the passenger is stowing luggage) or move already-seated passengers to access window seats, for example. This is compounded in LCCs such as Ryanair, as seating space is maximised which results in reduced movement area aboard the aircraft. Consumers also tend to rush when there is unassigned seating, to receive adequate cabin space to store their hand luggage (although Ryanair implements strict hand luggage policies, many individuals can place additional items such as coats within the storage space, reducing the room available for other passengers).

Unassigned seating can also lead to individuals travelling together seated apart, which can be particularly stressful for families. By encouraging a system of pre-purchased seating, this can not only increase the potential for positive Service Quality for Boarding, but also generate profits for the LCC.

The importance of boarding and check-in procedures to the SkyTrax respondents could be related to the third-order variable Waiting Time in the HiQUAL metric (Brady and Cronin, 2001). Although no all comments were directly related to waiting time, the amount of time spent waiting at boarding and check-in seemed to be clearly associated with passengers evaluation of the airline experience.

#### 7.4.4 Penalty Fees and Application of Policy

The majority of penalty fees incurred by passengers are due to oversize/overweight baggage and not having printed boarding passes. These fees must be levied immediately at the check-in counter, with non-compliance resulting in denied boarding. Many passengers see these fees as punitive. However, many of these fees seem to be incurred because of simple ignorance of the Ryanair policies. This is best illustrated in a comment left by an American passenger:

“In the US it customary for passengers to print their airline tickets at kiosk by simply entering their confirmation number of their itinerary. When I attempted to do the same, the kiosk requested payment of 140 pounds. My husband and I were completely stunned as we had already made payment to Ryanair for the tickets which included priority boarding and baggage fees. When I questioned the employee I was informed that I would have to pay 140 pounds in order to board the flight! We felt completely extorted by Ryanair's unscrupulous fees.”

The proponents of Ryanair claim that the airline does an excellent job of alerting passengers to instances which might cause them to incur a fee. The approving passengers view being charged a fee as a result of the ignorance of the passenger and not the fault of the airline itself:

“There are enough warnings on their website about potential extra charges, so if you get caught you only have yourself to blame.”

“Ryanair emailed us prior to flight to make sure we were aware of restrictions on baggage etc. and also reminding us to print boarding pass.”

“Just don't go to one of their flights with your mind set on trying to beat their system. If you want it cheap, then you must abide by their rules. If you don't want to be bothered with that, just go with the pricier airlines.”

LCCs such as Ryanair have specific penalty fees to both enforce the implementation of their strict policies and generate additional income. Many LCC-specific policies are in place to ensure maximum cost efficiency. For example, by implementing an incentive to print your own boarding pass (to avoid a penalty fee) Ryanair avoids additional time (and therefore money) that would otherwise be spent on doing this for each passenger. By having a penalty fee, any additional cost for Ryanair that occurs due to passengers not fulfilling the requirement is offset, which allows Ryanair to offer cheaper baseline ticket prices. LCCs evidently do not attempt to catch customers out, as many passengers commented on the number of “reminder emails” that they were sent prior to the flight, but rather to ensure the airline is functioning as efficiently as possible.

Knowledge and experience of the LCCs system, policies and procedures seems to greatly affect passengers’ overall experience. The LCC system is one that demands efficiency. When passenger’s behaviour does not conform to this rigid system, the experience can become uncomfortable. Therefore, it would be recommended that a tactical improvement in customer education should become an important part of all LCCs service strategies.

Some of the comments that were related to Penalties Fees and Application of Policy were seemed to relate to employees’ handling of a negative service encounter. Many of the fees imposed by the airline can be punitive in nature (for example: one passenger was charged £150 at the gate by Ryanair because their cabin bag was only slightly to large). This means that these fees and policies could relate the Interaction Quality between staff and Passengers as well as Tangibles on the HiQUAL scale. Furthermore, these determinants become part of the Technical Quality of the Nordic Model because many passengers see them as an additional service provided by the airline and contribute to low fares.



### 7.4.5 Staff Behaviour

Staff Behaviour produced opposing views for both Ryanair and EasyJet passengers, as it was a major source of both complaints and compliments. Within Ryanair, staff unfriendliness was a commonly occurring complaint. Much of the animosity seems to be directed towards ground staff. Ryanair typically flies to smaller airports, and the majority of these passengers are interacting with Ryanair staff directly (as opposed to larger airports that use contract labour).

“Staff were miserable, especially at boarding, when I tried helping my grandma put her hand luggage in the metal box sizer, she got all uppity because I was blocking other passengers!”

“Staff are rude and disinterested, I worry if they would cope in an urgent situation.”

While there may be some inconsistency in Ryanair staff's helpfulness (as there are in many service industries) the overwhelming number of complaints came from ground staff; these were usually interactions with airport personnel that were mistaken for official Ryanair staff members. It seems that Ryanair passengers have more negative experiences with staff than do the EasyJet passengers, although there may be some confusion on part of the passenger as to what organisation the employee represents (the airline, the airport or a third-party contractor). With EasyJet, as with Ryanair, most of the complaints came from interactions with ground staff. The staff are often not EasyJet employees, but were airport staff or staff of some contracting company like Servisair. Many of the complaints from interacting with ground staff came from larger airports, most notably London Gatwick.

One customer who would not recommend Ryanair directly attributed mistreatment by airport security to the airline:

“When we eventually managed to get through the farce of baggage check in, we had to open our hand luggage and remove laptops etc., but at the same time had to take

our child out of his buggy, fold that up and put it on the belt then pass ourselves through security scanners whilst our 2 year old son was left to his own devices.”

Although Staff Behaviour received many complaints from passengers, the friendliness of Ryanair staff was also praised. While this seems juxtaposed to the criticism, most of the complaints of staff unfriendliness came from interactions with ground staff, while most of the praise from interactions with the cabin crew. Although there was discussion about Ryanair’s cabin crew being rude or unfriendly, there were just as many comments praising the cabin crew’s helpfulness.

In general, interactions with staff seem to have a large effect on passengers’ overall experience with the airline. High labour utilisation is a characteristic of many LCCs and Ryanair commonly use this operation strategy, with staff expected to carry out multiple tasks as part of their employment. Although this is cost-effective, it can lead to overworked staff who may contribute to a negative Service Quality experience for the passenger. Furthermore, it is important to note that regardless of who the employee actually represents, the passenger tends to associate their behaviour with that of the airline.

Staff Behaviour is applicable to a broad range of Service Quality theory. It can be related to Empathy, Assurances, Reliability and Responsiveness in the traditional SERVQUAL framework and to Interaction Quality in the HiQUAL scale. However, it is hard to imagine a quantification of Staff Behaviour, so may prove difficult to implement in an objective measurement of Service Quality.

#### **7.4.6 Word Frequency Query Results**

A word frequency query was used to cross-check the results of the content analysis study. The results of the word frequency queries were compared to the observations and initial notes on the comments. This allowed a pattern to be

recognised in the word frequency queries. Most of the dominant words in the query were those relating to topics discussed in the comments.

Each query returned similar results between airlines and groups (Figure 7.1 represents a sample word frequency query). The query criteria were set to include stemmed words and highlighted similar topics to those identified earlier in the personal journal. Counts were determined by their relationship to the determinants identified during coding. From this point, the consumers' comments were coded directly into nodes based on topic. These were Baggage, Booking, Boarding, Policy Issues, Seating, Staff and [Waiting] Time. Each of these may represent an area of particular concern for passengers and provide a good base for further investigation.



Figure 7.1: Word frequency query

## 7.5 Other Factors

Several additional global factors can be derived from the customers' comments in the Skytrax study. These factors help to better illuminate the passenger experience and may be useful in highlighting the underlying drivers affecting passengers' Service Quality. While they are associated with passengers' experience and can play a part in their evaluations, they lie outside the control of the airline. They are Consumer Education, Fellow Passengers, and Value. These themes seem to have an overall effect on the passengers' overall experience, and their theoretical relationship is illustrated in Figure 7.2.

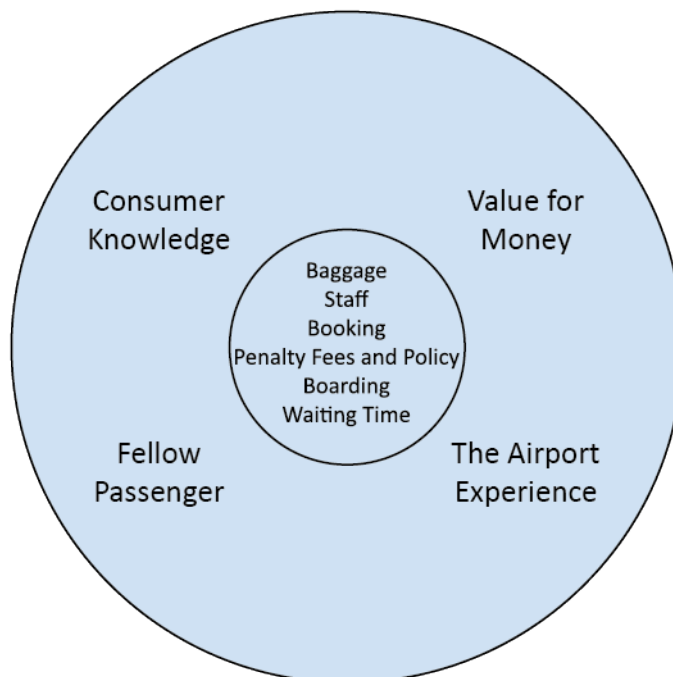


Figure 7.2. The Theoretical Relationship between Skytrax Global Themes and Airline Quality Key Determinants

### 7.5.1 Consumer's Knowledge and Experience

Popular press media seems to have an affinity for emphasising the disadvantages of travelling with low-cost airlines. This can lead to passengers expecting poor service when travelling on LCCs. Additionally; LCCs often implement non-traditional policies and procedures relating to boarding and baggage. This expectation of poor service, combined with situations that can potentially cause confusion for the consumer can often lead to a negative experience. As derived in section 6.4.4, much of passengers' dissatisfaction seems to stem from ignorance of the LCC experience and airline policies (often resulting in hefty fees being incurred at the airport).

It is understandable how such confusion could lead to consumer disappointment. Therefore, it becomes vital to the airline's operations that consumers are well informed of what to expect when dealing with the LCC. Despite the airline's best efforts to inform consumers of their policies and procedures, there still tends to be some confusion at the airport for new passengers. The LCC experience is unique in the air-transport marketplace, and it seems that learning (on part of the consumer) only happens through doing. Some consumers directly expressed frustration over an incongruence with the traditional procedures of legacy airline (such as the American passenger in section 6.4.4). In order to make informed decisions, consumers need accurate and easily available information. Although this is partially down to the airline, LCCs such as Ryanair clearly state their strict policies while booking, and then again via email before flying. There is a limit to how many times Ryanair sends policy reminders, as passengers already familiar with these restrictions may experience annoyance at receiving multiple emails. As the LCC model becomes more familiar with individuals and consumer knowledge increases, the number of individuals who have a negative experience with LCCs in this respect may potentially decrease.

### **7.5.2 Fellow Passengers**

The other passengers seem to have some effect on individual's perception of the overall experience. Notes from passengers on both airlines complain of "cattle class" and other passengers pushing, queue jumping and displaying rude behaviour. Although airlines cannot control other passengers, many of the policies they implement (for example, unassigned seating) has the potential to encourage this behaviour. Removing this element of the LCC experience seems to have a positive effect on passenger's overall experience (section 6.4.3) This is true with both Ryanair and EasyJet. Again, Ryanair customers who choose to purchase assigned seating/priority boarding tend to have a more positive experience than those who do not. EasyJet has apparently begun to realise this (on a practical level) and as a result has implemented assigned seating. Many of EasyJet's passengers believe this has led to an overall improvement in the experience (section 6.5.3) by reducing the "mad rush" to board the aircraft that many of Ryanair's passengers experience.

Air travel can be extremely stressful for some passengers and the anxiety associated with travel can cause these people to act disruptively (Bor, 2003). Again, an airline's policies and procedures can be a factor in compounding an individual's anxiety and may antagonise their stress resulting in disruptive behaviour (Bor, 2003). The CAA collects data relating to disruptive passenger behaviour on-board aircraft and divides it into two major groups: significant (such as smoking in-flight or disobeying the seatbelt warning sign) and severe (such as displays of violent behaviour). The data suggests that severe passenger disruptions (often termed "air rage") are not as pervasive as press media might have the public believe (Bor, 2007). If airlines could quell unruly passengers it may reduce the frequency of negative experiences for other passengers. Strict implementation of no-alcohol policies and further training in passenger management for airline staff (for example: understanding the psychology behind aggressive passengers and how to counteract this) have the potential to reduce the stress and negative experience caused by fellow passengers' behaviour.

### 7.5.3 The Airport Experience

Many of the complaints could be driven by interactions with third party employees. Most airports in the UK and Europe employ contract staff to handle ticketing and baggage checking. These employees serve the airport, not the airline, and many often work check-in procedures for multiple carriers. It is extremely difficult for the airline to have any influence over these personnel as they are employed by third-party companies. Most of the negative comments on Staff Friendliness involve interactions with such staff. Therefore, it becomes difficult to determine exactly what part of the dissatisfaction can be attributed to the airline. What is clear however, is that the airport experience influences consumers' opinions of the airline. It seems that some consumers tend to evaluate the entire flight experience (ground side and air side) as a whole. However, many of the "Would Recommend" group seem to be able to distinguish between the airport side of the experience and the in-flight side.

EasyJet complaints about uncomfortable departure lounges came from passengers at smaller (class D) airports. The nature of this complaint was similarly found in Ryanair and demonstrates that some aspects of service tangibles (such as comfortable departure lounges) may be lost at smaller airports. Several customers complained about the departure lounge at the Budapest airport:

"25 minutes wait before boarding. No seats, no ventilation and very poor lighting. In fifty years of travelling on most Continents it was the worst embarkation experienced."

"In Budapest, passengers have to walk within fences on the airport field, then wait on cattle-like ware-house, without seats, water, toilets or food, for minimum 30 minutes."

However, while complaints of poor facilities in departure lounges were frequent, there were fewer complaints from interactions with staff at smaller airports. With the overall increased efficiency of check-in and security at smaller airports, and

the lower arrival and departure slot fees charged to airlines, it is understandable why the design of departure lounges is not an immediate concern to most LCCs. However, as traffic increases it is likely that the smaller airports utilised by LCCs will improve their facilities.

#### **7.5.4 Value for Money**

Examination of the Ryanair “Would Recommend” group reveals Value for Money to be a very strong driver of consumer's decision making. Often passengers talk of Ryanair enabling the possibility of travel, where beforehand it was much too expensive.

“I would like to say that if it was not for Ryanair and its cheap flights I would not be able to fly as much as I do.”

“I can go home and get away for a cheaper price than a train ticket to London from Manchester.”

And comments even relate Ryanair's value to traditional carriers:

“I fly for business about twice a month and use various airlines from Manchester and to be honest the difference between KLM and Ryanair for example is a free juice a muffin and about 300 quid.”

As Value for Money is one of the principal aims of the LCC business model, it is affirming that this contributes to a positive Service Quality Experience.

However, it is useful to note that Value for Money may not be achieved if a passenger requires extensive additional costs to be added to their base ticket price. For example, a couple with an infant flying on Ryanair that required an additional 20 kg bag, along with the infant's car booster or travel cot added, would be charged an additional £120 for the journey (£20 per 20 kg bag, £20 infant fee, £20 infant equipment fee, per flight). This may place the LCC in the same price bracket as the traditional carriers, who may not charge for these items (for example, most traditional carriers have an allowance of one additional 23 kg bag for free). However, having split



pricing allows the customer to pick and choose what elements of service are important to them, allowing for a more tailored experience in regards to cost.

## 7.6 Limitations

Coding in the NVivo software helped to mitigate many of the traditional limitations of content analysis research (Morris, 1994). The primary limiting factor for this study was the data source; most significantly, the limited number of responses and the lack of temporal and airport specific information. While qualitative methods do not usually require large samples (Mayring, 2004), coding of the Skytrax study came from only the responses available on their website. The website does provide a time and date stamp for each response; however, it is impossible to determine the amount of time between the customer's flight experience and when they left a response on Skytrax.

Furthermore, Skytrax does not record the respondent's route or the airports involved. Several comments mention particular routes or airports, but there is no requirement to do so. Having this information would allow researchers to pinpoint particularly problematic airports. Airports which consistently resulted in a bad Service Quality experience could be excluded from future routes, if there was an alternative airport available. Additionally, there was no confirmation of the respondent's identification. While Skytrax does not permit anonymous responses, it does not have any means of verifying the respondent actually flew with the airline that they rated. However, these limitations are relatively minor when compared to Skytrax's ease of accessibility, layout that provides efficient coding, and engagement of responses.

## 7.7 Conclusion

Consumer watch-groups have been around for a long time and are still as popular today as they were in the early 1950s. They still remain important players in the marketplace; however, their format has changed extensively in recent years. The popularity of print media seems to be waning in the face of internet based sources (Bakos, 1998; Ratchford, Talukdar, & Lee, 2001; Ward & Lee, 2000). Online sources not only have the distinct advantage of reaching a wider audience, but they are usually free to the consumer, unlike most print media. They are also easily shared via social media, and are becoming increasingly more trusted by the public. Like print based watch-groups, some internet based groups deploy field agents to collect primary data; however, they have the added advantage of easily compiling individual consumer opinions on an ad hoc basis and efficiently displaying the results to the public. This has led to internet recourses becoming the dominant players among industry watchers (Brunger, William; Perelli, 2009; Ratchford et al., 2001).

Skytrax is a very good specialised aviation-industry watcher. Aside from the field data collected by their researchers, they publish a separate rating based on consumer opinions. Fortunately, these tend to be congruent (for example, the field rating for Ryanair is two stars and the consumer opinion rating is also two stars). TripAdvisor's focus is much wider, yet it still does an exceptional job of collecting consumer opinion data. When the customer comments are analysed, an interesting uniformity appears. It appears many of the criticisms left by Ryanair customers (such as Staff Unfriendliness) are shared by EasyJet customers. This is also true for customers' positive responses.

The Skytrax result is congruent with the TripAdvisor ratings. Although TripAdvisor does not collect comments that could be used in content analysis, the website does list several quality categories: Value, Check-In Experience, Punctuality, Baggage Handling, Seat Comfort, In-Flight Service, In-Flight Amenities and Reasonableness of Fees. These categories are synonymous with the nodes that were

coded in the Skytrax study and gives further support to the findings of the Skytrax study.

The uniformity of topics between the “Would Recommend” and “Would Not Recommend” groups of both airlines demonstrates the importance of these issues to the consumer. An explanation may be found in the observation that Ryanair had more negative comments relating to confusion or ignorance of policies and procedures than EasyJet. This may be in part to the design of the Ryanair website (at the time of this study)<sup>19</sup>. It seems that enjoyment of the Ryanair experience hinges on having full knowledge of their policies and procedures. Ryanair does provide the consumer with the necessary information, and many seem to understand it clearly; however, there is a great number that do not. Passenger's ignorance can also lead to greater difficulty at boarding and check-in and reduce ground-side operational efficiency. Improved education protocols could help Ryanair to greatly improve ground-side efficiency thereby adhering to Ryanair's operational philosophy of cost-reduction.

This study identified the key determinants of Service Quality in the low-cost airline industry through in-depth content analysis of secondary qualitative data. These five determinants were: Boarding and Check-in, Baggage Handling and Policy, Penalty Fees and Staff Behaviour. Identifying these factors could be valuable to low-cost airlines attempting to improve their Service Quality; these determinants could be monitored specifically and targeted for improvement. They could also be applied to further academic research and will play a key role in developing an objective metric for Service Quality in Chapter eight of this thesis.

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<sup>19</sup> As of March 2014, the Ryanair website has been significantly redesigned to become more simple and highlight key areas where additional charges may be implemented. It would be interesting to conduct a follow up study to determine what effect this new website has had on consumer education and the overall passenger experience.

# CHAPTER EIGHT: THE AIRLINE SERVICE QUALITY INDICATOR

## 8.1 Introduction

Chapter Eight seeks to achieve the third objective of this thesis: can an AQR type metric be constructed for the UK market? Chapter Seven identified the specific determinants for Service Quality in the airline industry, and Chapter Six used a quantitative scale to give an overall view of the relationships of Service Quality in the UK LCC airline industry. Chapter Eight generates a practical measurement of Service Quality that will allow for the comparison of results between airlines, in this case Ryanair and EasyJet.

While Chapter Six provided a theoretical view of Service Quality in the LCC airline industry which is beneficial to researchers of Service Quality (particularly those focusing on context specific research such as the airline industry), the research conducted in Chapter Eight will benefit industry professionals and consumers by providing them with an easily understood and longitudinally comparable metric for measuring Service Quality in the UK low-cost airline industry. This study has the potential to represent a possible shift toward more objective measurements of Service Quality through the creation of an instrument (ALSI) that uses quantitative secondary data relating to a given set of constraints to generate a Service Quality score for each airline.

In addition to addressing the third objective of this thesis to determine if an AQR type metric be constructed for the UK market, ALSI can also be used to answer the fourth objective of this thesis: can Service Quality related be to an airline's profitability? This question was justified in Chapter Three, when the importance of ancillary revenue to airlines' profitability was highlighted. By establishing a relationship between Service Quality and ancillary revenue, the importance of Service

Quality (in relation to profitability) can be justified to the airline industry. This relationship can be demonstrated by longitudinally comparing each airlines' ALSI score to the corresponding ancillary revenues. This should provide a clear indication of a relationship if it exists between an airline's level of Service Quality and their ancillary revenues.

The results of the qualitative study in Chapter Seven were used in the construction of the Chapter Eight model in comparison with the AQR factors. Several challenges in constructing the Chapter Eight model were identified: identifying the variables, finding appropriate data sources in the UK and assigning weights to the individual variables of the indicator to address the lack of dimensionality found in the AQR (Gardner, 2004).

The study in Chapter Seven used a purely subjective methodology and the survey in Chapter Six provided a quantitative, yet still subjective, approach to measuring Service Quality. This Chapter investigates a third possible measurement of airline quality by presenting a slightly more objective approach than the previous two methods. The subjective measurements (for example, qualitative methods or the more quantitative methods of SERVQUAL and HiQUAL) maintain an internal reality assumption. That is, their philosophical approach assumes that Service Quality is a construct that resides within the individual (as illustrated in Chapter Five). Subjective measures rely on the individual's perception to determine Service Quality. The external reality assumption assumes that Service Quality is a separate construct from the individual and exists within nature as a construct separate from the individual.

Objective measurements should be treated as high-order measurements, relying on subjective means to establish their parameters. Therefore, any objective metric of Service Quality must first establish itself subjectively. A novel objective instrument (ALSI) was created in order to demonstrate this concept. This study produces an instrument similar to the AQR (Headley & Bowen, 1997) that fits the

context of the UK low-cost airline industry and modern Service Quality Theory and demonstrates the viability of conceptualising Service Quality in objective terms.

The unique index created in this study is the Airline Service Quality Indicator (ALSI). While ALSI is wholly unique in its application, it's construction is largely based on the AQR (Bowen, Headley, and Luedtke, 1991). The AQR was specifically designed to fit the data rich US airline industry. In the UK and Europe, much of the data required to fit many of the AQR's variables are unavailable. Therefore, ALSI is required to redefine its own factors to fit the UK LCC market. These factors are taken from the content analysis study in Chapter Seven. The values for each factor come from publicly available sources (airline's annual reports) and the weights are derived from the survey data collected along with the HiQUAL study.

Like the AQR, the great advantage of ALSI is that it utilises quantifiable data obtained directly from industry sources. Most of the data comes from the airline's own published annual report or government sources such as the Civil Aviation Authority (CAA). Using governmental or other regulated sources should give validity to the data and reduce bias.

## **8.2 The Variables**

The variables in ALSI get justification directly from the findings of the content analysis in Chapter Seven and are supported by the AQR (Bowen et al., 1991, 1992). This section provides an in-depth description of the ALSI variables and justification for their inclusion or a detailed explanation of their exclusion.

When comparing variables of the AQR to ALSI, applicability had to be taken into account; the AQR uses many variables that may not be relevant in the context of the LCC industry (such as Denied Boarding or Lost Baggage) due to the differing operation strategies of low-cost and traditional airlines. The selection of variables is also limited by the amount of industry data collected within the United Kingdom and European

Economic Area. Therefore, some of the variables included in the AQR had to be eliminated due to the non-existence of the data (Headley & Bowen, 1997). For example, the AQR uses the number of customer complaints issued to the FAA for several variables to avoid possible bias from company data. The CAA however, does not record customer complaints. The lack of consistency in using customer complaint data has also been highlighted in other research (Gardner, 2004). Customer complain data is not recorded by the CAA largely due to firms not reporting the number of internal complaints, as it is the responsibility of the customer to file a complaint with the government. Gardner notes that most customer complaints do not get to this stage, as many complaints are made directly to the airline (Gardner, 2004). Therefore, this type of governmental data may be inconsistent with what is actually happening within the industry.

Each variable carries with it a positive or negative value. Items that increase the customers' overall experience are related as positive, and items that detract from the overall experience are negative. Table 8.1 gives a brief representation of ALSI's variables and their directional values.

Table 8.1

*ALSI Variables*

Variable	Calculation	Value
On-Time Performance (OTP)	Measured in number of flights that come in early to 15 min late	(+)
Ticket Price	Passenger revenue/number of passengers	(-)
Route Capacity	Total number of Available Seat Miles (ASM) for the Year	(+)
Load Factor	Average Load Factor	(-)
Allocated seating	Price of an assigned seat	(-)
Baggage Allowance	Cost of checked baggage and maximum allowable volume	(-)

### 8.2.1 On-Time Performance

On-Time Performance is a measure of an airline's punctuality. Records of missing or late flights are kept by the CAA and IATA with impressive accuracy. ALSI Measures On-Time Performance as a component of flight delays expressed as a percentage of total flights. A flight is considered on-time if it arrives early, up to fifteen minutes late. This attribute is almost universally agreed upon as a factor throughout the airline quality literature (Bishop et al., 2011; Bowen & Headley, 1993; Elliott & Roach, 1993). The AQR identifies On-Time Performance as a measurement of a firm's reliability (Bowen & Headley, 2007; Bowen et al., 1991, 1992; Bowen & Headley, 1993). On-Time Performance was also identified as an important factor to consumers' evaluation of airline quality during the Skytrax study in Chapter Seven. Furthermore, EasyJet's "Customer Satisfaction Survey" (CSAT) claims that On-Time Performance was strongly related to consumers' repurchase behaviour, willingness to recommend and overall satisfaction; however, they offer no detail as to the strength of these relationships ("EasyJet, Plc. Annual Reports and Accounts 2013," 2014, p. 54).

Annual Data for this variable in ALSI was gathered from the CAA's yearly-published punctuality statistics report. This is presented in number of minutes the flight arrived early. Early flights are defined as any flight arriving more than 15 minutes ahead of its scheduled time. This variable carries a positive value, with a greater number of on-time or early aircraft for the year represents better Service Quality.

### 8.2.2 Ticket Price

The AQR included Ticket Price as a measure of reliability (Bowen et al., 1991). Data was collected from each firm's annual report. This is a highly dynamic and competitive area for LCCs operating within the UK. One characteristic found in many LCCs is that ticketing is done in-house through proprietary company websites (some firms such as



EasyJet or Jet2.com may sell tickets through third party sites, but this makes up for a small majority of overall sales). This gives the firms total control over pricing and scheduling. This condition offers a unique context to study the effect consumers' perceptions and opinions on pricing (for example, Service Quality or Brand Identity). With the LCCs, unlike traditional carriers, ticket sales are not the result of a third party's marketing efforts; rather, they carry the full weight of the firm's brand image (Service Quality is a factor in brand image).

This variable carries a negative value. High fares negatively impact the consumers' overall experience (Bowen & Headley, 2007; Bowen et al., 1991; Park et al., 2004, 2009). This value can be found in the airlines' average fare for the year. Ryanair reports this figure directly; however, EasyJet requires that it be calculated by dividing Total Revenue by Total Passengers to produce a comparable value.

### **8.2.3 Route Capacity**

Responses from the qualitative study in Chapter Seven indicated that overly crowded aircraft were a factor influencing passengers' Service Quality. However, an increase in route capacity can result in lower passenger volumes per flight, along with more flexible scheduling for booking flights. Therefore, a higher route capacity offered by an airline should increase the overall quality of the service to the consumer.

The original AQR used size of fleet and number of airports served as measures of responsiveness. Measuring these variables individually does not give a clear picture of Service Quality. While size of fleet may be a good measure of financial performance, route capacity may be a better measurement of Service Quality. Additionally, the number of airports served only provides an illustration of market size. When measuring the level of Service Quality offered within a given market, it is route capacity that adds value to the consumer's experience.

Route capacity is represented in airline's annual reports as Available Seat Miles (ASM) or Available Seat Kilometres (ASK). Ryanair reports ASM and EasyJet prefers ASK, they both give the same information, but in different units. Therefore, in order to maintain consistency of measures EasyJet's ASK values are converted to ASM for the calculation of ALSI. This variable carries a positive value as an increased route capacity leads to less congestion within cabin space and greater choice for the passenger when choosing flights.

#### **8.2.4 Load Factor**

Load Factor is the percentage of aircraft total capacity that is used per flight. As ticket prices decrease and the demand for air travel increases, high load-factors are certain to become commonplace in the LCC environment. Load Factor is a measurement of aircraft crowdedness. While Route Capacity relates to the number of available flights along a given route, Load Factor illustrates the fullness of the aircraft. The qualitative study in Chapter Seven identified that crowded aircraft cabins can result in more noise and discomfort for the passenger. The AQR has never taken Load Factor into consideration. However, the results of the content analysis study offer support for the inclusion of this variable.

Load Factor data is obtained directly from airlines' annual reports. It is reported as percentage of total aircraft capacity. The variable carries a negative value. This is because higher load factors seem to negatively impact the consumers' overall experience (Bowen & Headley, 1993).

#### **8.2.5 Allocated Seating**

Allocated Seating is a functional quality and gives the study greater balance between its positive and negative measures. The AQR did not include assigned seating as a

variable. This is most likely because the AQR is designed for US carriers and all firms in that market offer assigned seating. As outlined in Chapter Three, unlike traditional carriers (or their North American counterparts), not all UK LCCs offer assigned seating or baggage allowance. Typically, LCCs offer the option to purchase allocated seating.

The content analysis study revealed that purchasing allocated seating can greatly improve the passengers' overall experience. EasyJet's "Customer Satisfaction Survey" (CSAT) also found that allocated seating was strongly related to consumers' repurchase behaviour, willingness to recommend and overall satisfaction (EasyJet, PLC. Annual Report, 2013, p.54). While both airlines have historically offered the option to buy allocated seats, currently the only LCC offering this as an inclusive service is EasyJet. They see this as a way of differentiating themselves from Ryanair to gain a competitive advantage<sup>20</sup>. Therefore, this variable is represented as a function of the price the airline charges for the allocated seat. Therefore, this variable carries a negative value, as lower charges for allocated seats are an advantage to the consumer.

### 8.2.6 Baggage

Baggage can be evaluated from a number of different aspects, including lost or mishandled baggage, baggage allowance, cost per baggage item and cabin baggage. Lost or mishandled baggage is a concern for every air traveller. Flight delays, increased security, and transfer traffic all contribute to the efficiency of baggage handling (Walker, 2008). Many aging baggage handling systems are strained due to an increase of passenger traffic through airports, further increasing the risk of baggage damage and loss. Having a bag lost or mishandled could certainly have a negative impact on the passengers' experience; however, this variable was not included in the ALSI equation

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<sup>20</sup> It is possible that allocated seating might become inclusive with Ryanair in the near future following the implementation of their new customer service strategy (Ryanair, PLC. 2013).

for three reasons. First, there is very little consistent data describing the frequency or quantity of lost or mishandled luggage. While there is some general industry data available, it is not airline specific. While Ryanair publishes its lost or mishandled baggage figures in their annual report, EasyJet does not. Secondly, it is difficult to attribute fault in a lost or mishandled baggage claim. After a passenger checks their bag, it can pass through several independent personnel and automated systems before reaching the aircraft. This makes it very difficult to determine where, along a very complex network, the fault happened. However, once a bag has been lost, it becomes the responsibility of the airline to return it to the consumer. This often results in a net loss for the airline as recovery of the lost bag can become expensive (Walker, 2008). Finally, as illustrated in Chapter Five, there is less risk of lost baggage in LCCs because the point-to-point route structure allows fewer chances for loss than in traditional carriers. In 2013, Ryanair lost less than 1 bag per 3,000 passengers in 2013 (Ryanair Annual Report, 2013; p.5). This is minimal when compared to traditional carriers where a passenger can have as high as a one in 60 chance of having a bag lost (Walker, 2008). Unfortunately, the CAA or the IATA does not have clear data reporting on lost or mishandled baggage. However, the results of the Skytrax content analysis study and the Chapter Six survey both indicate that baggage is an important topic to LCC consumers. Some airlines report it in their annual report, while others do not, and it is often unclear whether the responsibility was that of the airline or the airport.

As data for lost and mishandled baggage was therefore not available, this study examined baggage only from a value-based perspective, specifically via baggage allowances and baggage costs. Airlines can modify their baggage allowances as a means of differentiating themselves. These allowances have existed largely unchanged over the last six years; however, in 2014 Ryanair began to remove fees for a second checked bag as a way of differentiating itself from EasyJet. Therefore, this measure was taken into consideration along with the total cost per kilogram of two checked bags.

Furthermore, most of the responses from the content analysis study related to cabin baggage. This was represented in this study as the total volume of cabin baggage allowed. As it was impossible to capture both cabin baggage volume and checked baggage allowances within the same measure, ALSI therefore contained two variables relating to baggage: Total Cabin Baggage Volume (a positive value) and Cost per kg of Checked Baggage (a negative value). These values are available from the airlines' annual filings.

### **8.2.7 Average Age of Aircraft**

Traditional carriers often operate older models of aircraft. Some older aircraft are less comfortable for passengers than their modern counterparts. This is largely due to improvements in engine efficiency that result in lower noise, improved cabin layout, better facilities, and improved fuselage insulation. LCCs tend to rely on modern, ultra-efficient aircraft to maintain profitability. Although Average Age of Aircraft was found in the original AQR study, however the average age of fleet is not mandatory reporting for UK carriers. Therefore data may be difficult to calculate for this measurement as it is not required reporting in the United Kingdom. For these reasons it must be excluded from ALSI.

### **8.2.8 Number of Accidents**

Bowen, Headley and Luedtke (1991) assign a relatively heavy weight to this variable; yet removed it completely in their 2003 AQR re-examination. Unfortunately, the CAA or Department for Transport does not regularly publish statistics in this area. Furthermore, most of the UK's LCCs have outstanding safety records; therefore, for many of them this figure would be zero. However, it is very typical for an airline accident to be reported in the news; one accident could therefore have a negative

impact on an airlines' Service Quality. This is particularly true if an accident is related to poor pilot performance or maintenance, and this could result in a negative Service Quality perspective. If an accident was seen as being out of control of the airline it may have a neural effect of customers' perceptions of performance. Conversely, some accidents may produce positive emotions toward the airline, such as US Airways flight 1549 that landed in the Hudson River following multiple bird strikes. Following the crash, and the airline's vast public relations campaign, the airline developed a reputation for having highly experienced and safe pilots.

Within the Skytrax responses in the content analysis study, there was almost no mention of airline safety mentioned. This may be due to airlines being generally very thorough with their passenger safety (for example, the mandatory passenger safety checks at the start of each flight), and very few individuals who fly are ever involved in an accident: IATA reported in 2013 that out of 3 billion people who flew on commercial aircraft that year, there were only 210 fatalities and 81 accidents. Therefore, this variable will not be included in ALSI.

### **8.2.9 Employee Contentment**

Justification for the inclusion of Employee Contentment is derived from the literature. Employee satisfaction is the first link in the Service/Profit Chain (Heskett, Sasser, and Schlesinger, 1997). It is assumed that happier employees should provide a better service than displeased employees (Loveman, 1998). However, because many LCCs have high rates of labour utilisation as part of their business strategy, employee dissatisfaction may be more prevalent than in traditional carriers. Many of the complaints from the Skytrax study (Chapter Seven) seem to illustrate interactions with angry, rude, or unfair employees, even if this was not directly stated. Employee Contentment can be measured as by the average yearly rate of turnover, however Ryanair do not have employee turnover data available for collection, so this variable

was excluded from ALSI.

### 8.3 Methodology

The ALSI data was gathered from available industry and government sources and input into a spreadsheet. Data was collected longitudinally from 2008 to 2013. The outputs of ALSI are easily calculated and understood. They are the summation of each individual variable divided by its respected weight.

$$ALSI = [(w \square H1) + (w \square H2) + (w \square H3) \dots] \div [w \square + w \square + w \square \dots]$$

The weights were generated from the responses to the survey (the details of this survey are outlined in the previous chapter). This produced a raw score that was comparable between airlines and longitudinally across years (2008-2013). The secondary data used in ALSI, being sourced from industry and government, resulted in a high degree of validity for ALSI. After establishment, this measurement can be repeated on a scheduled basis (quarterly, or yearly) and can therefore produce notable trends in airline Service Quality.

The individual variables were measured during the survey that collected the HiQUAL items from Chapter Six. Responses (n=150) were recorded on a five-point Likert-type scale and range from Not Important to Very Important. These were recoded as numerical values in SPSS ranging from -2 to +2. This is reflective of the wording of the scale as the midpoint was a No Opinion option. This recoding allowed the midpoint to maintain the zero value and gave positive or negative values to the other options. Table 8.2 gives the means of responses to each variable.

Table 8.2

*Survey Responses*

Survey Responses	Mean	Standard Deviation
On-Time Performance Numeric	1.50	0.702
Baggage Numeric	1.19	0.88
Cabin Crowdedness Numeric	0.57	1.18
Route Capacity Numeric	0.70	1.09
Allocated Seating Numeric	0.11	1.42
Ticket Price Numeric	1.80	0.45
In-Flight Services Numeric	1.02	1.16

**8.3.1 The Weights**

Computing a complete ALSI value required the extraction of weights for each variable. While it may have been possible to simply add each variable's value together, doing so would have produced an incomplete picture of airline Quality by not accounting for the importance of each value to the consumer. Including weights added an additional dimension to the ALSI scale and as it was originally used in constructing the AQR, it was important for ALSI to use weighted values. The weights were derived from the survey response means. Any response that was below zero was assumed not important to consumers' overall evaluations of services.

Although In-Flight Services was a minor topic mentioned briefly in the Skytrax content analysis study, it generated enough interest to be measured as an item on the survey. However, analysis of the survey showed it to be on the negative side of consumers' opinions. For this reason, it was excluded from ALSI. The complete list of



ALSI factors, their weights and their associated directional values can be found in Table 8.3.

Table 8.3

*ALSI Weights and Values*

Measure	Sign	Weight
On-Time Performance (OTP)	(+)	1.51
Load Factor	(-)	0.58
Route Capacity - Available Seat Miles (ASM; billions)	(+)	0.70
Average Fare (Euro)	(-)	1.80
Allocated Seating Charge (regular seat)	(-)	0.11
Baggage Charge (cost/kg in GBP)	(-)	1.19
Cabin Baggage (cubic meters)	(+)	1.19

### 8.3.2 Gathering the Data

Inconsistent reporting procedures for UK airlines made identifying values for ALSI's variables difficult and extremely time consuming. In most cases values were directly reported; however, they were rarely easy to identify. Not only is there a lack of industry standard for non-accounting portions of corporate annual reports, but the reports for each airline can vary greatly from year to year. This is especially true for EasyJet (for example, EasyJet does not report average fare, but suggests calculating it by dividing Total Revenue by Total Number of Passengers). Furthermore, Ryanair reports everything in EU currency, while EasyJet reports most of its financial statements in GBP. In this case, EasyJet's average reported exchange rate for the appropriate year was used to convert the figures from GBP into Euros. The results of the data collection can be found in Table 8.4.

Other data that was thought to be interesting to the LCC context was also collected (Table 8.5). This dataset further highlights the non-uniformity of airline performance reporting in the UK. Several of these measures would be interesting to compare between groups; however, the information is unavailable. For example, Ryanair reports in-flight sales and EasyJet only reports ancillary revenues. EasyJet also reports yearly staff turnover, and Ryanair does not. While this does not directly influence the ALSI calculation, it is interesting for comparison.

Table 8.4

*ALSI Data*

	Year					
	2013	2012	2011	2010	2009	2008
<b>Ryanair</b>						
On-Time Performance (OTP)	93.41%	91.12%	85.31%	88.22%	90.13%	88.03%
Load Factor	82.02%	82.02%	83.14%	82.04%	81.23%	82.01%
Route Capacity - Available seat miles (ASM) billions	72.83	71.15	63.36	53.47	47.10	41.34
Average Fare (Euro)	48.24	45.31	39.24	34.95	40.02	43.72
Allocated Seating Charge (regular seat; Euros)	5	5	5	5	5	5
Baggage (cost/kg in GBP)	0.82	0.82	0.82	0.82	0.82	0.82
Cabin Baggage (cubic meters)	580	580	580	580	580	580
<b>EasyJet</b>						
On-Time Performance OTP	88.03%	87.14%	79.02%	66.11%	79.52%	75.43%
Load Factor	89.3%	88.7%	87.3%	87.0%	85.5%	84.1%
Route Capacity - Available Seat Miles (ASM) billion	46.12	44.85	43.07	39.11	36.14	34.06
Average Fare (GBP)	70.03	65.99	54.55	54.43	59.27	54.07
Exchange Rate (GBP to Euro)	1.19	1.19	1.15	1.15	1.16	1.32
Average Fare - Euro	83.34	78.53	62.74	62.59	68.75	71.38
Allocated Seating Charge (regular seat; Euros)	9.50	9.50	9.50	9.50	9.50	9.50
Baggage (cost/kg in GBP)	0.80	0.80	0.80	0.80	0.80	0.80
Cabin Baggage (cubic meters)	630	630	630	630	630	630

Source: Ryanair Annual Report, 2008-2013; EasyJet Annual reports, 2008-2013

Table 8.5

*Revenue Data*

Ryanair	Year					
	2013	2012	2011	2010	2009	2008
Total Revenue (M Euro)	4884.0	4324.9	3629.5	2988.1	2942	2713.8
Total Ancillary Revenue (M Euro)	1064.2	886.2	574.2	663.6	598.1	488.1
Ancillary Revenues - % of total revenue	21.8%	20.2%	22.1%	22.2%	20.3%	18.0%
Inflight sales - % of total revenue	10.4%	12.1%	12.6%	13.0%	13.9%	15.0%
Total In-Flight Sales	110.20	107.20	100.70	86.50	83.20	73.31
Total Revenue (M Euro)	4884.0	4324.9	3629.5	2988.1	2942.0	2713.8
<b>EasyJet</b>						
Total Revenue (million)	4258	3854	2973.1	2666.8	2667	2363
Passengers (million)	60.8	58.4	54.5	49.0	45.0	43.7
Total Ancillary Revenues	640.0	600.0	719.0	571.0	516.3	367.1
Ancillary revenue – % of Total Revenue	6.65%	6.42%	4.14%	4.67%	5.17%	6.44%
REVENUE – Pence per ASK	5.74	5.34	4.98	4.72	4.58	4.24
Staff Turnover %	6.5%	7.5%	9.7%	7.6%	6.9%	1.2%

Source: Ryanair Annual Report, 2008-2013; EasyJet Annual reports, 2008-2013

### 8.3.3 Measuring the Impact on Ancillary Revenue

After establishing real values for the ALSI and obtaining current and historical data of in-flight sales, a simple correlation will reveal the relationship between these variables. Correlations must first be carried out longitudinally within groups (such as: only comparing EasyJet's levels of Service Quality to their in-flight sales). Once these values are established individually, the results can then be ranked.

While this is probably the simplest test in this entire study, it is probably the most important. Firstly, it establishes the reliability of the ALSI. Most importantly, it satisfies one of this projects overall aims by providing a picture of the value of Service Quality to the industry by highlighting the effect on ancillary sales. Testing the effect of Service Quality on in-flight purchasing is very important to establishing the reliability of ALSI. If a longitudinal relationship exists between the level of Service Quality of a given subject within LCC industry and their level of in-flight sales, then ALSI is reliable.

Ryanair directly reports In-Flight Sales as part of Total Revenue on its balance sheet. Unfortunately, EasyJet does not differentiate revenues on its balance sheet to the degree of Ryanair. Therefore, it is impossible to determine an exact value for in-flight sales and ancillary revenues must be examined as a whole. Ancillary Revenues are anything sold in addition to Passenger Revenues (such as: in-flight meals and entertainment, rental cars or hotels). Passenger Revenues are revenues associated directly with the flight (for example, the ticket, extra baggage, priority boarding). Since ancillary revenues are expected to be influenced by Service Quality, it is important to examine the ratio of ancillary to total revenue. Examining the raw value for ancillary revenues helps control for changes in operating strategy that affect total revenue. This ratio is important because it an increase or decline in the ancillary revenue/total revenue ratio is reflexive of the value of ancillary revenues in relation to the airlines' management strategy.

## **8.4 ALSI Results**

As Chapter Five has illustrated, calculation of ALSI is very simple. It involves basic arithmetic to arrive at a common output. Each year ALSI is calculated represents an independent measurement. As the values that add to the customer experience are positive and values that detract for it are negative, a higher ALSI score equates to better

service. The results of ALSI are found in Table 8.6 with the highest values for the year in bold.

Comparing means and standard deviations of ALSI for Ryanair and EasyJet (Table 8.7) demonstrate the results are relatively close to the mean (Ryanair =1.255; EasyJet =1.5764). There were no exceptional outliers for either airline across all years, and the ALSI scores seem to be relatively close to one another as would be expected among players in the LCC industry where airlines share similar operating strategies.

Standard Q-Q plots indicate that the results of ALSI are relatively close to being normally distributed for such a small sample size across both Ryanair and EasyJet (Figures 8.1 and 8.2). The data for the individual variables can also be assumed to be normally distributed, and many of these are perfectly linear. This close relationship is further evidenced by the strong correlations between the two airlines (Table 8.8).

The ALSI metric returned values for each year between 2008 and 2013. Scores for both airlines varied from year to year with Ryanair having a higher score than EasyJet in all years except 2008 and 2011, when EasyJet outperformed Ryanair. The data indicates a clear and dynamic trend of ALSI scores and provides an easily understood illustration of Service Quality by year.

The results indicate Ryanair as having a higher level of Service Quality than EasyJet in 2013. However, this is below their mean score ( $\mu=92.7501$ ) and indeed is a lower score than they achieved in 2012, but is still within one standard deviation (1.255) from the mean. Both airlines seem to increase in their overall service to the consumer until 2011, when EasyJet loses a considerable amount of its Service Quality. That year, EasyJet had some serious problems with OTP that predominantly impacted its ALSI score. As well, an increase in Average Fare and a slight increase in Load Factor contributed to EasyJet's reduction in Service Quality.

In measuring the impact on ancillary revenue, Pearson-r correlation reveals strong relationships between the ALSI values and Ancillary Revenue Ratios (Tables 8.9 and 8.10). Ryanair has a positive relationship ( $r=0.889$ ;  $p=0.012$ ) between ALSI and

EasyJet has an even stronger negative correlation ( $r=(-)0.904$ ;  $p=0.005$ ). Therefore, there is a significant likelihood that these values move in relationship to one another giving credibility to the argument that the two variables are related.

Table 8.6

*ALSI Results*

Airline	Year					
	2013	2012	2011	2010	2009	2008
EasyJet	89.338	90.433	94.255	93.874	92.044	91.164
Ryanair	92.619	93.210	93.891	94.011	92.099	90.590

Table 8.7

*ALSI Statistics*

Measure	N	Mean	Standard Deviation	Skewness	Skewness Std. Error	Kurtosis	Kurtosis Std. Error
Ryanair ALSI	6	92.750	1.255	-0.864	0.845	0.295	1.741
EasyJet ALSI	6	91.518	1.576	0.149	0.845	0.002	1.741
Staff Turnover EasyJet	6	0.066	0.029	-1.576	0.845	3.565	1.741
Ryanair Ancillary Revenues	6	712.400	218.552	0.956	0.845	-0.328	1.741
EasyJet Ancillary Revenues	6	568.900	120.039	-0.796	0.845	1.167	1.741
EasyJet Total Passengers	6	51.900	7.092	0.078	0.845	-2.109	1.741
EasyJet OTP	6	0.892	0.028	-0.172	0.845	-0.067	1.741
Ryanair OTP	6	0.791	0.081	-0.606	0.845	0.244	1.741
EasyJet Load Factor	6	0.820	0.006	0.000	0.845	2.500	1.741
Ryanair Load Factor	6	0.870	0.019	-0.396	0.845	-0.806	1.741
EasyJet Average Fare	6	71.220	8.402	0.456	0.845	-1.305	1.741
Ryanair Average Fare	6	41.818	4.668	-0.212	0.845	-0.564	1.741
Valid N (listwise)	6	-	-	-	-	-	-

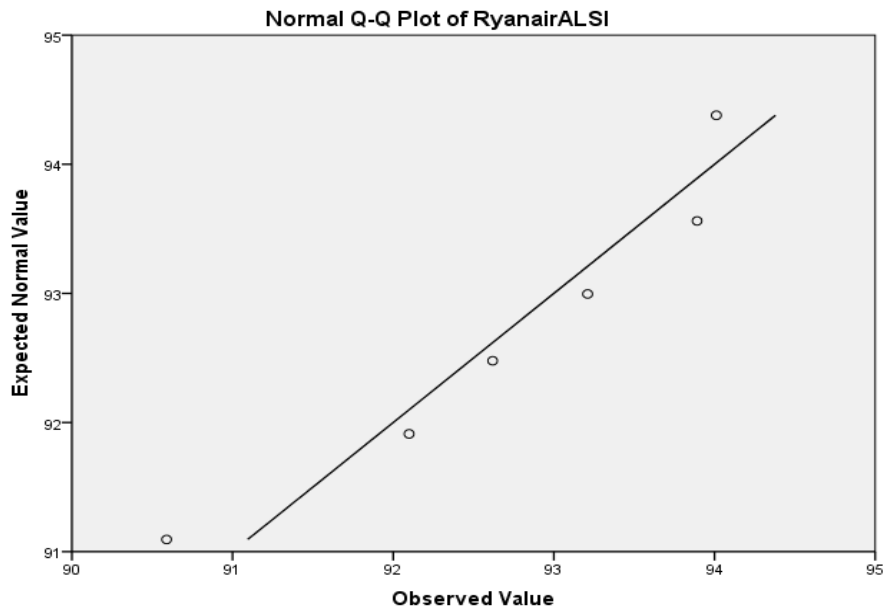


Figure 8.1. Ryanair Q-Q Plot

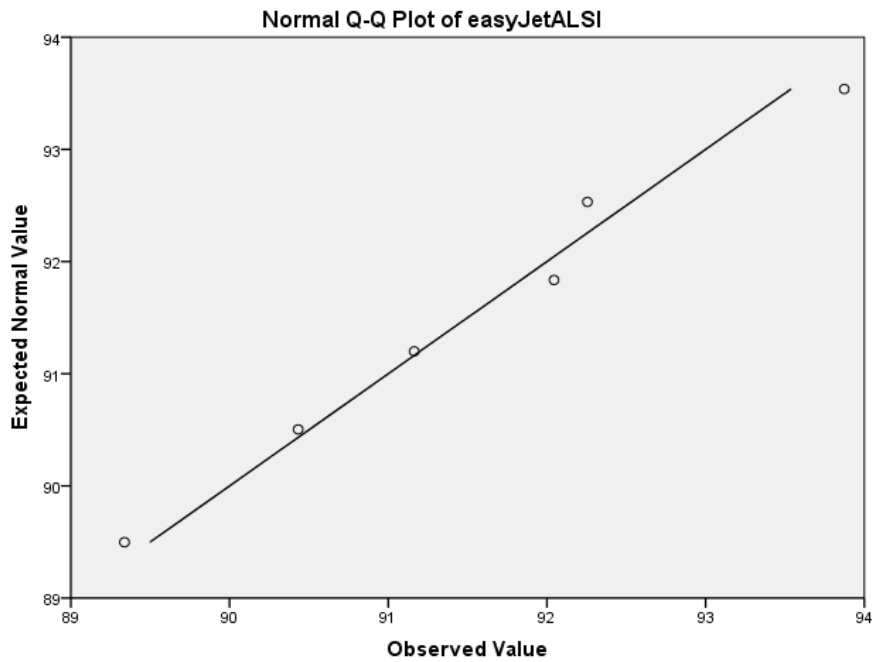


Figure 8.2. EasyJet Q-Q Plots



Table 8.8

*ALSI Correlations*

		Ryanair Ancillary Revenue Ratio	ALSI Ryanair
Ryanair Ancillary Revenue Ratio	Pearson Correlation	1	0.889*
	Sig. (2-tailed)	-	0.018
	N	6	6
ALSI Ryanair	Pearson Correlation	0.889*	1
	Sig. (2-tailed)	0.018	-
	N	6	6

\*. Correlation is significant at the 0.05 level (2-tailed).

Table 8.9

*Ryanair: Ancillary Revenue Comparison*

		Ryanair-ALSI	Ryanair Ancillary Revenues
Ryanair-ALSI	Pearson Correlation	1	0.259
	Sig. (2-tailed)		0.620
	N	6	6
Ryanair Ancillary Revenues	Pearson Correlation	0.259	1
	Sig. (2-tailed)	0.620	
	N	6	6

Table 8.10

*EasyJet: Ancillary Revenue Comparison*

		EasyJet-ALSI	EasyJet Ancillary Revenues
EasyJet-ALSI	Pearson Correlation	1	-0.031
	Sig. (2-tailed)		0.953
	N	6	6
EasyJet Ancillary Revenues	Pearson Correlation	-0.031	1
	Sig. (2-tailed)	0.953	
	N	6	6

## 8.5 Discussion

The outputs of ALSI clearly indicate a varying trend in Service Quality between both Ryanair and EasyJet. Each airline possesses its individual score for the corresponding year. The balance between positive and negative ALSI variables means an airline could theoretically obtain a negative value; however, this is unlikely. The scores are designed to reflect the level of Service Quality present within the airline.

If ALSI represents a measure of Service Quality that exists as a defined value in nature, then a maximum and minimum value must exist. It is possible to produce a theoretical maximum ALSI score for a given year. Controlling for Route Capacity and Baggage Allowance, all other positive variables can be expressed as maximum values and all negative variables can be nullified. This produces a theoretical maximum score for a given year. In 2013, the maximum ALSI Score for Ryanair=104.978 and EasyJet=110.899. A similar approach will produce a theoretical minimum ALSI score. Maximum or Minimum ALSI scores are only theoretical as they assume values for several variables that would be extremely difficult for the LCC to achieve (for example, zero Average Fare, zero Load Capacity and 100% OTP).

The closeness of the ALSI scores between Ryanair and EasyJet is expected, as both airlines operate within the same industry and have very similar business strategies. The scores are easy to differentiate and seem to accurately measure the intended value. As expected, ALSI's outputs are easy to understand and are can be compared linearly.

Within the results, Ryanair and EasyJet were able to be compared and contrasted directly, and as such it could be determined for a specific year which airline had a superior measurement of Service Quality. This direct comparability of scores between airlines and across years demonstrates ALSI's ability as a diagnostic tool and achieves the primary objective set out in this chapter. Fulfilling this objective also allows for the successful comparison of ALSI scores to ancillary sales, thereby linking Service Quality to profitability in this context.

The advantages of an objective measurement such as ALSI are that it provides a standardized score that is comparable between subjects and across time. This score can further be evaluated alongside other variables affecting the industry, such as profitability. Furthermore, the individual components of the metric can be tracked alongside its outputs to determine areas of service deficiency. This makes it a powerful diagnostic instrument for industry professionals and an easily understood tool to aid consumers in the decision-making process.

### **8.5.1 The Relationship Between Quality and Value**

Within the constructs of the ALSI metric, On-Time Performance, Load Factor and Route Capacity are the only variables that can be directly linked to Quality through the Service Quality literature. The other variables (Average Fare, Allocated Seating Charge, Baggage Fee and Baggage Allowance) are reflective of price and are therefore representative of Value. These latter variables were included in ALSI because there was no clear way of measuring these components of the airline experience without

incorporating their price. Excluding them would reduce the total number of factors incorporated into ALSI and this may have an impact on ALSI's dimensionality.

Despite ALSI incorporating these value measurements, it is theoretically possible that it represents a measurement of Quality within the low-cost airline industry. This is because there is an established relationship between Service Quality and Value (Caruana, 2000; Cronin et al., 2000; Kuo, Wu, & Deng, 2009; Oh, 1999). While there may be some debate as to the direct relationship between these two variables (Caruana, 2000; Cronin et al., 2000), there is no doubt that they are clearly linked and are components of overall Customer Satisfaction (Caruana, 2000). Furthermore, these components represent a quantifiable measurement of the key determinants of Service Quality in the low-cost airline industry that are identified in Chapter Seven. Therefore, incorporating them into ALSI was deemed acceptable.

### **8.5.2 Measuring the Impact on Ancillary Revenue**

Within the study it was shown that there is a significant likelihood that ALSI values and ancillary revenue ratios move in relationship to one another, with Ryanair exhibiting a positive relationship and EasyJet exhibiting a negative relationship.

The opposing directional values seen across airlines can be confusing without first considering the different operating strategies of the two airlines. Ryanair has continued to focus on maximising OTP and lowering ticket price, while EasyJet is aggressively trying to expand its market share. Between 2010 and 2013, EasyJet expanded its Route Capacity by over 16 million ASM. However, within those years EasyJet saw a significant jump in total ancillary revenues between 2010 and 2011, then a sharp decline in 2012. It is important to note that this comparison is airline specific. What is important is the strong positive correlations between the ancillary revenue ratio and ALSI across both airlines. This demonstrates that the airline's Service Quality is directly affecting its ancillary revenues, in a firm-specific manner. Therefore, an

increase in Service Quality for a given year, should result in an increase in ancillary revenues.

## 8.7 Conclusion

This research found that an objective instrument for Service Quality in the UK low-cost airline industry can be constructed using available secondary data. The study also found a clear link between Service Quality and profitability in this context.

While the AQR groups all airlines operating in the United States into one measurement, ALSI studies only the low-cost airlines in the UK market. There is a distinct difference in the operating principles of traditional carriers and LCCs (outlined in Chapter Four); therefore, measuring Service Quality should be done independently. This will give outputs on much more realistic terms. Since ALSI is constructed upon research into the LCC industry, a separate measurement would need to be constructed for the traditional carriers operating in the UK and Europe. While it is certainly possible and academically interesting, unfortunately doing so is outside the scope of this study (due to the constraints of time and space).

Simplicity of design, utilising secondary data, and quantitative measurements all allow for the comparison of ALSI results across subsequent time periods and among industry players. Other, more qualitative measurements of Service Quality do not allow for cross comparison across years or between service providers as this type of subjective data is not easily comparable. This comparable measurement provides industry professionals with a valuable instrument for monitoring Service Quality, both within and between airlines. Furthermore, with ALSI the consumer now has access to information relating directly to airline Service Quality. Previously, the results of more qualitative or survey based studies were the property of the industry. ALSI puts this information into an easily accessible and understandable format for the consumers. Given such information consumers will be better able to make more informed purchase

decisions. Additionally, a more informed consumer base may add to the competitive advantage of quality leaders within the LCC industry (Shostack, 1977).

Furthermore, ALSI has attempted to correct or nullify many of the criticisms that were associated with the original AQR. Within ALSI, On-Time Performance carries the highest weight of all variables (OTPW=1.5067). The original AQR similarly applied a heavy weight to OTP (Bowen et al., 1991, 1992; Bowen & Headley, 1993). This resulted in some justifiable criticism that the high influence of OTP on the overall score biases the results toward airlines that dramatically under-perform in other areas (Gardner, 2004). However, OTP appears to be important to LCC consumers. Support for this can be found in both the Skytrax content analysis study (Chapter Seven) and the survey results from this chapter. This is possibly because ALSI excludes traditional carriers. Unlike traditional carriers, LCC only sell point-to-point tickets that do not offer connecting flights. This makes arriving on time extremely important if a passenger has purchased tickets that involve more than one flight on a single journey, as passengers are then required to gather and recheck their baggage and travel through security. On-Time Performance is also an area where Ryanair seems to consistently outperform EasyJet. This is most likely due to Ryanair's strategy of operating out of smaller airports where air-traffic congestion is less likely. Therefore, the market-specific focus of ALSI should nullify most of the complaints set against the AQR.

Another criticism of the original AQR was its lack of attention to significant digits (Gardner, 2004). Many of the values did not share uniform measurements. ALSI tries to correct this by maintaining an appropriate number of significant digits relative to the measurement (for example, Available Seat Miles is reported in Billions instead of its raw value). Doing so should prevent any one factor from unnecessarily biasing the scale.

### 8.7.1 Shifting Research Philosophy

ALSI represents a slight shift in the philosophical approach to Service Quality theory. It assumes that Service Quality is a construct that exists within the airline industry itself, not just in the minds of the consumer. Where Service Quality metrics are traditionally purely subjective scales that are rarely accessible to the consumer, ALSI demonstrates the viability of the next generation of Service Quality instruments. This new instrument is now partially subjective (in defining the weights and variables) and partially objective, using publicly available industry data. This will allow comparability longitudinally across time, within industry, and even with other variables (such as in-flight sales).

### 8.7.2 Limitations

The ALSI instrument possesses some inherent limitations. As it is limited in its observation of Service Quality by the availability of data<sup>21</sup>, any objective representation of Service Quality is by nature incomplete (while many factors have the potential to affect a passenger's air-travel experience, it is impossible to quantify all possible variables). Therefore, ALSI represents a "best picture" of Service Quality in the airline industry. Furthermore, because of different operating strategies, it is possible that consumers have different expectations of traditional carriers than LCCs. This could make the factors making up ALSI for traditional carriers different from that of the LCCs. Therefore, a new measurement using the same methodology would need to be constructed to fit the traditional carrier market. The difference in construction could make comparison between the LCC ALSI and one designed for traditional carriers very difficult. However, as many traditional carriers are now adopting LCC-like operating

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<sup>21</sup> Most of the data used in constructing the ALSI comes from the airlines' corporate annual reports. While there are regulations governing reports on accounts, much of the annual reports are left to the discretion of the airline.

strategies, the distinction between the two carrier types may not become as important in the future.

ALSI also benefits from the comparability of its outputs; however, this is dependent on the key factors of the ALSI metric remaining static between each observation. Since the industry is susceptible to changes in operational strategy that could affect Service Quality, the factors may need to be periodically revisited to ensure linear compatibility and stability of the metric. However, doing so will employ a similar methodology to this study.

### **8.7.3 Implications for Further Research**

As this method of objectively measuring Service Quality is a relatively novel concept, further expansion across industries is necessary. This is a multi-step process that begins at the consumer level, and so expanding ALSI into new markets could improve the understanding of consumer's need in such areas. Further research is also needed to establish the applicability of this multi-step process within other industries.

Further refinement of the ALSI metric could see it developing into a comprehensive measurement of Customer Satisfaction. Using the four value based components Average Fare, Allocated Seating Charge, Baggage Charge and Baggage Allowance, ALSI could be indicative of overall Customer Satisfaction in addition to Service Quality. As Chapter Four highlighted, Customer Satisfaction is often seen as an antecedent to Service Quality. In order to establish a Customer Satisfaction metric, further research is needed to formalise the relationship between Service Quality, Value and Customer Satisfaction.



# CHAPTER NINE: DISCUSSION AND CONCLUSION

## 9.1 Introduction

This study sought to examine Service Quality in the UK low-cost airline industry. Four key objectives were outlined:

1. Identify the determinants of Service Quality in the low-cost airline industry.
2. Apply a traditional model of Service Quality to the low-cost airline industry.
3. Construct an AQR type metric for the UK market.
4. Examine the relationship between Service Quality and airline profitability.

In order to address each of these objectives, Service Quality was examined using three distinct measurements across three studies: content analysis, a quantitative survey and a novel indexing metric. Each of these methods has their advantages and disadvantages and this thesis highlights the unique characteristics of each. The content analysis study was first used to identify the determinants of Service Quality, then by using the quantitative HiQUAL model, it was determined that traditional quantitative methods can be adapted to fit the low-cost airline industry. To improve on this quantitative method by increasing reliability to consumers and industry professionals, a comparable AQR type metric was constructed in the final study. This novel metric also allowed for Service Quality to be related to an airline's profitability, which is a key reason for why Service Quality is of interest to airline industries.

This chapter includes an in-depth discussion of this research. It begins by briefly reviewing the context and theory then expands on the findings and discusses them in a wider context, including the justification of this research in providing novel research theory to the Service Quality literature. The order of discussion follows the logical order of the thesis, beginning with the literature review and concluding with a

discussion of each of the three studies.

## **9.2 The Literature Review**

The purpose of the literature review was to provide a background for the thesis by covering major developments and key theories of topics developed in this thesis. The thesis began by providing an overview of Service Quality as both a stand-alone concept and within the aviation industry, in particular highlighting the major developments within Service Quality research. Illustrating the history and major developments within the airline industry then set the context of the thesis. Service Quality within the aviation industry was reviewed, specifically in the LCC market, before going into a theoretical discussion on Service Quality and its measurement. The review then led to a series of research questions that this study sought to answer in order to successfully provide a piece of research that examined Service Quality within the low-cost airline industry.

### **9.2.1 The Airline Industry**

The airline industry has changed considerably in the last 100 years. Before the US Deregulation Act of 1978, air travel was highly regulated and industry profits were assured through careful planning and government subsidy. With the establishment of deregulation, market liberalisation and open-skies agreements between nations, competition airlines became intense. The literature review highlights serious operational difficulties for legacy carriers trying to maintain a competitive advantage in the new market. These include both external and internal market forces, deregulation and legalisation. These factors have led to profitability issues within the much of the airline industry.

Despite these challenges, one type of airline that has done very well in this environment is the low-cost carrier. Chapter Three illustrates how these airlines'

unique strategies have returned consistently greater profits than traditional carriers, while offering a lower ticket price. This is most likely because many of the low-cost carriers leading the market were born within the unregulated environment and do not have the decades old corporate culture that has made many traditional carriers so inelastic.

The LCCs have redefined the air travel service. While traditional carriers established themselves as offering luxurious travel in the skies, LCCs market themselves as nothing more than a cost effective means of transportation. There is little glamour with low-cost airlines. This price centred strategy seems to be becoming more commonplace within the airline industry (even among traditional carriers) and it is possible that consumers are adapting as well. The price sensitivity of the LCC market, coupled with ever shrinking margins, makes finding an alternative competitive strategy a must.

In order to survive with continued pressure from market liberalisation, legislation and rising fuel prices, all airlines will need to examine new possibilities to maintain a competitive advantage. Chapter Four outlines the possibility of offering superior quality as a possible strategy for market leadership. The LCC provides an excellent context to examine Service Quality in this industry because their unique business models have very limited inclusive services, unlike traditional carriers. This unique operating strategy makes it very important to examine LCCs and traditional carriers independently.

However, the airline industry is constantly changing. Today there is a less clear distinction between LCCs and traditional carriers as in the past. Now, many LCCs are offering premium services (at a cost) and traditional carriers, in an effort to maintain profitability, are taking on many of the operational elements of the low-cost airlines (such as charging for checked baggage). Although there is a blending on operations

strategies in today's market, there are still distinct differences between the two to warrant their separation when examining Service Quality.

### 9.2.2 Service Quality

While the volume of Service Quality literature is vast, it seems that the theoretical debate is limited to a few key authors. Much of the debate over the constructs of Service Quality took place in the late 1980s and peaked in the mid-1990s. By the end of the 20<sup>th</sup> century, most of the debate had slowed. At that time there were several new models that had been published, but due to significant attention on one portion of the literature (SERVQUAL) these received little or no criticism in the literature. After a few short years, it appeared that the Service Quality debate was no longer of interest to major academic research. The literature review in this thesis demonstrated the need for continued debate in the area by offering an in-depth review of the major developments in the Service Quality literature.

It seems that much of the Service Quality literature seems to self-identify as being part of the “Nordic” or “American” schools of thought. Throughout Service Quality discussion and debate, most of the literature seemed to ignore the idea of differing ontological approaches to Service Quality measurement. Most of the literature was related to highly subjective measures. This research offers a unique perspective that extends the illustration of the Service Quality literature beyond these two schools and into camps of differing philosophical constructs: the Objective Camp (with the AQR and ALSI) and the Subjective Camp (with the American and Nordic Schools). Recognition of the objective methods of Service Quality measurements is important if the Service Quality literature is to be motivated toward such research. Therefore, expanding the dynamic of the literature beyond simply the “Nordic” and “American” schools is a key way to improve and expand upon Service Quality research.

There is some support for expanding Service Quality literature into the Objective Camp. The closely related Customer Satisfaction literature has seen some

development of objective indexes and Service Quality has been measured objectively in the Airline Quality Rating (although the authors of the AQR make no distinction of this philosophical shift). Furthermore, Parasurman, Zeithaml and Barry, in their 1988 SERVQUAL paper even illustrate the importance of objective measures of Quality, but dismiss them as being limited to the manufacturing sector. The ALSI instrument represents a return to the manufacturing definition of Quality in that it sees Service Quality as something that can be defined in nature and measured independently from the consumer. Just as Quality in the manufacturing sector's parameters are defined by the needs of the end user, the constraints of an objective measurement of Service Quality can be initially defined by the consumer.

## **9.3 The Research**

### **9.3.1 The Content Analysis Study**

The Content Analysis Study allowed the assessment of qualitative methods as means of analysing the low-cost airline industry. The results gave insight into what consumers' value most in their experience with low-cost carriers and provided a firm base from which to develop quantifiable measures in later chapters. This study met one of the primary objectives of this thesis: to discover the determinants of Service Quality in the UK low-cost airline industry. The identification of these determinants benefits researcher of the airline industry by providing an illustration of consumers' preferences in this context. It also may have some value to industry professionals by highlighting some of the strengths and weaknesses of the low-cost airline experience.

The focus of this study was two UK based low-cost airlines: Ryanair and EasyJet. With the variety of discussion about the LCC industry in popular media, there could be some relevant information that can be used for this inspection. Therefore, this chapter began with an investigation of three examples of popular media: printed

consumer report magazines (represented by Which?), internet-based travel companies (represented by TripAdvisor.com) and airline specific websites (represented by Skytrax). Each of these was examined in-detail for its suitability to be applied to the content analysis method.

Consumer information can be gathered from airline specific websites that allow customers to leave personal comments. At the time of this writing, Skytrax is the only website specifically dedicated to airline quality. It is this direct consumer involvement and quality-focused approach that make it an acceptable option for a qualitative study into the determinants of Service Quality in the low-cost airline industry.

While airline specific internet forums may be considered a source of LCC public discussion, these were not used in this study. Such member-driven forums are prevalent on the internet; however, they tend to be extremely biased in their overall subject matter. While it is possible that there may be some valuable information in air-travel related forums, this information would be much more difficult to decipher and organise than Skytrax as many of these forums can maintain lengthy discussions between members on a variety of topics making their examination time consuming and confusing. Therefore, Skytrax was the only suitable source for this type of data. Using only one medium as a subject was deemed acceptable due to the high degree of Trotsky's conformity to the needs of this research. Limiting the analysis to only one media also helped manage the time constraints of the study.

Skytrax was acceptable for generating topics related to airline Service Quality, for several reasons: first, it was an airline specific medium. Furthermore, unlike Which? and TripAdvisor.com, Skytrax's focus on airline quality meant that consumers' responses were most likely to be related to that topic. The layout of the Skytrax website made finding and coding the relevant information extremely easy. People who left comments were first asked to rate their overall experience relating to different elements of the airline experience and were asked whether they would or would not

recommend the airline. This greatly simplified the research as it made favourable and unfavourable responses very clear.

The word frequency query results display an interesting uniformity across both airlines. This may indicate that there is comparability between consumer experiences in the low-cost airline industry. This is most likely because different LCC airlines share very similar operating strategies (especially in comparison to traditional carriers) and may share similar operations challenges when attempting to meet consumers' needs. Additionally, a deeper inspection into the consumer's comments reveals very similar themes arising from consumer' discussions of the low-cost airline experience.

Particularly interesting was the appearance of evidence that highlighted areas of confusion by the consumer. There was specific misunderstanding relating to the identity of the service provider, as consumers seemed to have difficulty distinguishing between the roles of the airline and the airport. Due to the close operational relationship between the airport and airline, this confusion is somewhat justified; however, misappropriation of responsibility for a negative experience might lead to a negative perception of airline quality. Specifically, attributing a mistake by the airport as one by the airline was a common occurrence among many of the respondents. This is an extremely important concept for airline managers who wish to improve the customers' perception of overall Service Quality. Establishing strategies that help the consumer to differentiate the airline's brand from the airport could help to alleviate some confusion; however, doing so could prove to be extremely difficult as the two entities are securely linked through their operational requirements. It may be possible for low-cost airlines to use their influence at smaller airports to get groundside staff to focus more on Service Quality and Customer Satisfaction. Doing so could possibly increase the likelihood of passengers having a positive opinion of the travel experience as a whole.

The results of this study were effective in identifying important topics in the low-cost airline experience from the consumer's perspective. These themes were: Consumer Education, Interactions with Staff and Fellow Passengers. Along with these themes came a set of attributes of airline service that customers seem to generally value. These were: Baggage Handling and Policies, Boarding and Check-In, On-Time Performance, Penalty Fees, Inconsistent Application of Airline Policy by Staff, and Staff Behaviour. Each is a factor that a low-cost airline could potentially focus on in order to improve their service strategy.

The topics identified in the Skytrax study provide a valuable list of indications for airline professionals concerned with Service Quality. This in-depth examination of consumer responses could be a powerful tool for these managers when developing their operating and service strategies by pinpointing areas of concern. Unfortunately, this type of qualitative study does not allow the researcher to make generalisations to a larger population from these responses. What it does do is provide a set of topics that researchers can later attempt to quantify. Following this, these results can be examined for their applicability to the construction of a more objective Service Quality metric.

While Skytrax represents an acceptable choice it does carry with it some inherent flaws. First, Skytrax only published the few most recent responses (between  $n=58$  and  $n=71$ ). This does indeed provide a sufficient sample for the study; however, it limits any possible inspection into past trends in consumer's opinion. While it could be possible to monitor the Skytrax website for an extended period of time and record new postings as they appear to help increase the sample size, doing so was outside of the time constraints of this study. Only current consumer's opinions can only be observed. Tracking any changes must be done longitudinally from the time of this study's beginning. It would be interesting to undertake a longitudinal comparison of these comments in order to illustrate the dynamics of consumer opinion within the LCC industry over time, but such a study is outside the constraints of this research.



### 9.3.2 The HiQUAL Study

The HiQUAL study was conducted to investigate Service Quality in the low-cost airline industry using a previously developed model of Service Quality. This benefits researchers in the Service Quality literature by re-examining the debate within this body of literature and applying a somewhat neglected hierarchical model. This is necessary because the Service Quality literature has discontinued this debate in search of new topics, without any resolution.

Of the many Service Quality models that were developed during the 1990s and early 21<sup>st</sup> century, SERVQUAL seemed to dominate practise. Although SERVQUAL's simplicity has contributed significantly to its popularity (contrary to HiQUAL needing elaborate factor analysis), this literature review highlighted many of SERVQUAL's deficiencies. While it is not clear as to the exact reasoning behind SERVQUAL's dominance, it is possible that practitioners are simply attracted to the acronym: SERVQUAL. Many of the other Service Quality metrics have not been given attractive names (except for the SERVQUAL variants). Therefore, this study began by assigning Brady and Cronin's Hierarchical Model of Service Quality (Brady & Cronin, 2001) the unique moniker HiQUAL. This greatly simplifies discussion of this model and will hopefully make it more attractive to both academics and professionals.

During its development the HiQUAL model demonstrated a high degree of reliability and validity across several industries and this lead to the assumption that it would be an acceptable choice to fit a context specific application and there was some indication that Airport Quality might be a hierarchical construct (Fodness & Murray, 2007). Given the close relationship of the airport and airline, it makes sense to apply hierarchical principles to airline Service Quality.

There has been construction of context specific models based on the concepts presented by Brady and Cronin (Dagger et al., 2007; Ko & Pastore, 2005); however, until this research, this has been little direct application of the original HiQUAL scale

in academic research or practise. This is important because HiQUAL is useful as a practical instrument as well as a theoretical model by providing an in-depth picture of the relationship of Service Quality to its underlying factors. With HiQUAL a clear illustration of the constructs of Service Quality in a given context can be produced and this can be used to highlight areas of concern for the service provider. This research highlights HiQUAL's practicality and will hopefully contribute to its adoption as a popular Service Quality metric thereby deepening the literature on hierarchical models of Service Quality and demonstrating the practicality of an industry-specific scale. This ease of adaptability is another practical advantage of HiQUAL and is reflexive of other popular Service Quality metrics. This could lead to more industry-specific Service Quality models being developed or adapted from existing models.

An electronic distribution method was chosen in lieu of approaching passengers in an airport. While there is certainly nothing wrong with first-person survey methods, and many researchers have had success with this method when researching the airline industry (for example, An and Noh, 2009; Gilbert and Wong, 2002; Park, 2007), the time constraints of this study made doing so impractical.

There was only one possible discrepancy with one of the initial qualifying questions: Question Two, "How often do you fly with this airline?", was designed to determine the average level of experience of respondents. This question could have asked for a specific number of trips taken on a LCC within a given time period. However, doing so would require respondents to accurately recall each trip, which has the potential to be inaccurate. The method employed only requires a generalisation. Each method would probably be adequate; however, asking for a general opinion seems to require less effort from the respondent. Adaptation of survey methods in this respect could be particularly useful if time was a constraint for the respondent, and overly specific questions tend to be off-putting for in bringing respondents in to complete surveys.

Unlike gap-based metrics, HiQUAL allows researchers to examine the facets of Service Quality on a multi-level platform. This provides a much richer understanding of the results by providing in-depth detail of the relationship between the factors affecting Service Quality and greatly advances HiQUAL's status as a diagnostic and problem-solving tool. Since managers can identify service deficiencies on multiple levels, they are able to understand the underlying factors affecting such problems. With research pointing to Service Quality as a hierarchical construct, this makes HiQUAL a more descriptive metric than the popular SERVQUAL based variants.

Brady and Cronin, in their initial construction of the HiQUAL scale, analysed the second and third-order factor structures separately. This was because of the limited capabilities of the statistical software at that time. This study utilised IBM SPSS Amos 19, a current and powerful Structural Equation Modelling tool. This made analysing the factors as a whole a possibility, increasing the ease of analysis and reporting of this model.

Comparing the second-order HiQUAL factors to the results of the study in Chapter Seven forms an illustration of the HiQUAL results' congruency with the previous study. The second-order factors of the HiQUAL results confirm several of the themes identified in Chapter Seven. Many of the Chapter Seven responses indicate some statements about interactions with staff and Interaction Quality was also confirmed through the path model. This points to an indication that Interaction Quality may be a strong driver of consumers' evaluations of the airline experience. Flight Delays and On-Time Performance were also identified as determinants in Chapter Seven. This can be compared to Outcome Quality in the HiQUAL results, as the outcome of a flight is often dependent upon its timely arrival. Furthermore, Waiting Time is a sub-dimension of Outcome Quality in the HiQUAL model.

A sub-dimension of Physical Environment Quality, Ambient Conditions had the weakest factor loadings of the second-order HiQUAL factors in the path analysis. There

is also some mention of Ambient Conditions in the Chapter Seven study. The Chapter Seven study had also identified determinants relating to Ambient Conditions. These related to the departure lounge at the gate, on-board seating and the aircraft interior.

The HiQUAL metric performed well in a context-specific application. There was an acceptable fit to the data and the path analysis revealed strong estimates between all of the factors. This study demonstrated only a slight preference for Outcome Quality in the results. However, given a much larger data set, there may have been more uniformity between factor loadings.

### **9.3.3 The ALSI Study**

Chapter Eight's primary objective was in constructing and demonstrating the applicability of a comparable means of measuring Service Quality within a specific industry. This study represents a novel contribution to research by creating an objective measurement of Service Quality in the low-cost airline industry and illustrates the importance of Service Quality to airline profitability in the UK market. This study meets one of the objectives of this thesis: to determine if an AQR type metric could be constructed for the UK market. By doing this, an easily understood indicator of Service Quality can be provided to analyse the UK airline market. This could be beneficial to both consumers and industry professionals as the outputs of ALSI can be compared to other industrial variable to determine their overall effect of Service Quality (such as in-flight sales).

Bowen and Headley had illustrated the need for a measurement of airline quality that would fit markets outside the US; however, no expansion of this concept into European markets had taken place (Headley & Bowen, 1997). The overall difficulty in constructing an objective metric for Service Quality in the UK low-cost airline industry has one constraint: the availability of accurate industry data. It is impossible to simply transfer the AQR's weights and factors into the European market. First, Governmental bodies in JAA countries do not collect the vast amount of industry data

as the US Government. Secondly, consumer's opinions of airline quality differ slightly in the European context (Tiernan et al., 2008). This research has corrected the issues with applying the AQR in Europe as suggested by Headley and Bowen (Headley & Bowen, 1997) by developing a novel UK specific scale: The Airline Service Quality Indicator (ALSI). This confirms the applicability and advantages of industry-specific Service Quality models.

As suggested by Bowen and Headley, obtaining the raw data for these UK based airlines was much more difficult that would be with US airlines (Headley & Bowen, 1997). With a lack of consistent government reporting relating to the variables, the best source for data was the airline's corporate annual reports. Again, unlike their US cousins, these airlines do not offer the same uniformity of content within their reports. Each airline also varies the structure and content of their annual reports quite frequently. This is especially true with EasyJet, who seem to significantly reformat their reports each year. Ryanair has a much more standardised format to their reports, but the information reported can still vary slightly. Not only does this limit the availability of data, but also makes collecting it very time consuming. However, if this type of metric became more common in practise, it could drive more standardised reporting from industry and government.

Calculation of ALSI was relatively straightforward. The simple algorithm provided by Bowen, Headley and Luedtke was easily adapted to this application (Bowen et al., 1991). The weights for ALSI were arithmetically derived from the results of the items in Section Two of the survey (Chapter Six).

Once individual results for each airline had been calculated, these could then be compared between airlines, thereby giving an indication of areas of strength and deficiency within airlines, as well as allowing for cross-comparison of the results between airlines. There was an observable trend in the ALSI results with Ryanair seeming to have the most stable of scores. The ALSI outputs also made sense when

compared to factors affecting each airline. For example, EasyJet had significant problems with On-Time Performance in 2012 and the ALSI scores clearly reflected this deficiency. Due to its simplicity and clarity, ALSI could benefit industry professionals as a diagnostic instrument and provide passengers with an easily understood decision making tool.

When making comparison to firms' financial performances (in this case ancillary revenues) the ALSI scale works very well. As its outputs contain airline specific data, there is a high degree of accuracy when comparing ALSI outputs to other areas of airline performance. This is a specific advantage ALSI has over other methods of Service Quality measurement. HiQUAL and the content analysis study do not directly measure variables relating to a specific airline, and so comparing their results to airline financial performance is not as simple as with ALSI. While some studies have focused on buyer behaviour, currently there has been no direct comparison in the literature between Service Quality and factors affecting airline profitability.

ALSI also uses the same weights and variables each year, meaning its results are longitudinally comparable. This is not necessarily true with other forms of Service Quality measurement. While it may be possible to produce a HiQUAL or qualitative type study on a yearly basis, the results are not as comparable as with ALSI. ALSI is the only Service Quality metric that uses independent industry data and does not rely on sampling consumers' opinions. This is important in that it provides the scale with characteristics specific only to objective measures of Quality. For example, there is a direct longitudinal relationship between the ALSI scores (across years), where other forms of Service Quality measurement are not as comparable. Unlike other methods of Service Quality evaluation ALSI is easy to calculate, report, understand and generates comparable results. Therefore, ALSI can provide accurate trend information that could be vital to managers trying to use Service Quality as part of their airlines' competitive strategy.

This research has not only outlined the effect Service Quality has on other industry variables, but it also demonstrates the applicability of a comparable metric of measuring service outputs in monitoring other elements of the airline industry as they relate back to Service Quality (in this instance: profitability). Therefore, allowing Service Quality itself to function as an overall indicator of the firm's market performance and competitive advantage.

ALSI demonstrates a clear relationship between Service Quality and consumer buying behaviour related to ancillary products and services. This is consistent with the result of consumer buying behaviour studies in the airline industry (Park et al., 2006). Comparing ALSI outputs to ancillary sales shows a clear relationship between these two variables. EasyJet's negative correlation between ancillary sales and Service Quality was most likely a result of the limited amount of longitudinal ALSI scores driven by EasyJet's recent low OTP scores. This could insinuate that poor Service Quality at EasyJet could result in an increase in ancillary revenue sales (and thus profitability); however, this is irrational and not supported by the extant literature. In coming years this is expected to turn into a positive correlation, as it is with Ryanair.

While ancillary sales are not the only measure of airline financial performance, it is most suited for this context. This revenue stream is unique to the LCC industry and is becoming an important part of these airlines' operating strategies. This type of airline revenue is also the most likely to be influenced by Service Quality because of the mode of delivery (typically in-flight sales). Revenue per Available Seat Kilometre would be another possible measure of airline financial performance (although indirect) that could be used as a gauge for financial performance and compared with Service Quality; however, there are many factors that could affect this figure much more strongly than Service Quality (such as: changes in the airlines' cost management).

This study demonstrated the construction of a novel, objective metric for measuring Service Quality in the UK low-cost airline industry. This illustrates the

possibility of a shift in philosophical approach to measuring Quality in the service sector. While such objective measurements of Quality are commonplace in the manufacturing sector, they are rare in the service sector. The result of this study, ALSI, provides an easily understood, comparable metric for Service Quality in its given context.

### **9.3.4 Relationship Between Studies**

Most evaluations of Service Quality are subjective in nature. This applies to both qualitative evaluations of Service Quality and quantitative surveys as both rely on consumers' opinions to gain insight into service outputs. This has led to the terms Service Quality and Perceived Quality used almost interchangeably in the literature. This thesis examines the possibility that Service Quality is a real construct existing in nature, independent of Perceived Quality. The construction of the ALSI metric in Chapter Eight is an illustration of this possibility.

The three models represent a step-wise shift from purely subjective evaluation of Service Quality (in which Service Quality can be interchanged with Perceived Quality) to the creation of an objective instrument (where Service Quality can be viewed as a separate construct from Perceived Quality). The first study uses the purely qualitative content analysis technique to arrive at an understanding of the determinants of Service Quality in the low-cost airline industry. The second study then goes on to utilise quantifiable survey data to build a hierarchal picture of Service Quality in this context. Although the data in this HiQUAL study is quantifiable, it still relies on the subjective interpretation of the respondent to generate its values. The final chapter therefore demonstrates the final shift towards a more objective approach to measuring Service Quality. However, as it uses subjective methods in the initial determination of its factors, it is not entirely objective. This study therefore uses several methods for measuring Service Quality to demonstrate a shift in the ontological perspective of Service Quality.



## **9.4 Contributions**

The primary aim of this thesis was to examine Service Quality in the low-cost airline industry. This investigation provides a contribution to industry, practise and the Service Quality literature by producing outcomes that highlight the importance of airline quality research and demonstrating the possibility of shifting Service Quality metrics from subjective methods to more objective instruments.

### **9.4.1 Contributions to the Service Quality Literature**

Chapter Four provided an in-depth look at the key elements making up the popular body of Service Quality literature. This uncovered some interesting areas of concern. Firstly, towards the end of the popular Service Quality debate (in the early 2000s), there were several exceptional models developed; yet these were left mostly unused since their inception. This was largely considered to be because of the popularity of previously developed SQERVQUAL based metrics in both academia and practise. This thesis examines one of these unattended models as a practical measure for Service Quality and as a competitor to the popular SERVQUAL scale.

The first contribution to the Service Quality literature comes from resurrecting the discipline of Service Quality measurement. Unfortunately, debate within the Service Quality community seems to have gained momentum throughout the 1990s but ended in the early 2000s before major advances had time to become wide spread. This thesis highlights this unfortunate trend in Service Quality and the importance of reviving debate within this discipline thereby deepening the understanding of hierarchical constructs.

Further contribution to the literature comes from providing an up to date synopsis of the Service Quality literature, extending support for hierarchical Service Quality theories, and demonstrating the practicality of HiQUAL. The most recent

synopsis of the Service Quality literature (Seth et al., 2005) failed to consider Brady and Cronin's research (Brady & Cronin, 2001). Therefore, this literature review currently provides the most current synopsis of popular Service Quality literature. It is possible that further investigation into hierarchical Service Quality scales was constrained by the limited statistical software at the time; however modern software (such as Amos) allows for much easier evaluation of these models. This can increase ease of analysis and open up these models to a wider group of researchers.

Investigating HiQUAL as a practical tool for measuring Service Quality contributes to the literature by extending the understanding of HiQUAL and similar hierarchical models as practical tools. Most of the Service Quality research centres on developing new models, or variants of models in a particular context. However, this thesis provided support for the use of a previously conceptualised in a context specific application, with only slight modification. This not only demonstrates the robustness of the original HiQUAL scale and its applicability to marketing practices, but more generally promotes the idea that previously developed (and unused) models can be successfully adapted to fit new contexts.

The second contribution to the Service Quality literature is illustrated between the Skytrax study in Chapter Seven and the ALSI study in Chapter Eight. This chapter demonstrates a process to create an objective measure of Service Quality. This process begins with a qualitative study to identify the determinants of Service Quality in a given context, then employs a known quantitative metric to provide a weight for each of the criteria, then fits industry data with each variable and calculate the outputs. This process begins with deriving the determinants of Service Quality from the perspective of the consumers and concludes by shifting the ontology into a slightly more objective epistemology. This results in a measurement of Service Quality as a measurable term that exists in the real world. This is congruent with work in the Customer Satisfaction literature and supportive of Bowen, Headley and Luedtke's work on the Airline Quality

Rating (Bowen & Headley, 2007; Bowen et al., 1991, 1992; Bowen & Headley, 1993).

This provides a new avenue for the investigation of Service Quality.

This thesis demonstrated that Service Quality can be viewed as a construct independent of Perceived Quality. Thus, Service Quality can be viewed as a natural construct. While seemingly this is a return to the manufacturing definition of Quality, it provides clear advantages over subjective measures of quality. This demonstration will hopefully give evidence for an alternative view of Service Quality and other subjective measurements in the Social Sciences.

#### **9.4.2 Contributions to Practise**

Despite long-standing criticism of the SERVQUAL scale, managers seem to have a preference for SERVQUAL or SERVQUAL-based instruments when taking practical Service Quality measurements. This research offers support for the argument against using gap-based scales and suggests that performance-only measurements are better suited to most applications. Despite being theoretically out-dated, gap-based models do not produce as in-depth results as hierarchical models as they provide a picture of the factors affecting Service Quality as well as their sub-dimensions. This allows for areas of concern to be clearly highlighted.

The analysis of the HiQUAL data demonstrated good model fit for this context; therefore, adding value to the argument that HiQUAL is as versatile a model as SERVQUAL or SERVPERF. This will hopefully lead practitioners to consider hierarchical models more often when examining Service Quality in a given context.

The construction of ALSI was unique in context and demonstrates a clear process of developing such a metric. If practitioners adopt this process, similar metrics may prove useful in other industries. With its easily understood and comparable outputs, it would be beneficial to examine this possibility further.

#### **9.4.3 Contributions to Industry**

The contributions of this thesis to the airline industry comes from identifying the key determinants of Service Quality in the UK low-cost airline industry and developing an objective metric of Service Quality (ALSI) This is achieved through the Skytrax study in Chapter Seven and the ALSI study in Chapter Eight. Each of the determinants identified in Chapter Seven (Baggage Handling and Policy, Boarding and Check-In, Penalty Fees and Application of Policy, and Staff Behaviour) represent areas of the air travel experience where airlines have a key opportunity to influence passengers' perceptions of the airline and affect the overall air travel experience. Therefore, these determinants can now be considered when managers are planning their marketing strategies.

The qualitative research also identified possible confusion by some passengers when recognising airport staff and airline staff. This is an important distinction as many airports utilise their own employees (or sub-contracted staff) at the ticketing and check-in counters. Consumers wrongfully assuming that these employees belong to the airline may inappropriately assign blame to the airline for breakdowns of service in these areas. This could further result in the airline receiving a negative evaluation for something that is out of their control. Consumer Education was another factor that seemed to influence passengers' evaluations of their airline experience. Those that had more knowledge or experience with traveling on a particular airline appeared to evaluate the experience more positively. Many of the negative experiences also seemed to stem from passengers' misunderstanding of the LCCs' policies or procedures. Airlines seeking to improve their customer service or brand image should attempt to better educate the passengers in these areas to mitigate the possibility of a negative encounter, or even utilise a novel approach such as designing a different uniform to allow airline personnel to stand out from airport staff.

This thesis also benefits the airline industry through the construction of an objective metric for measuring Service Quality specifically in the LCC industry. This was illustrated in Chapter Six in the development of the ALSI metric. As this metric

produces longitudinally comparable outputs, it can track changes in Service Quality over time as well as directly compare scores between airlines. Furthermore, the ALSI outputs can be compared to other indicators of airline performance (such as profitability) to see the relationship between Service Quality and other performance factors. This information could help airlines to adjust their service strategies to maximize their competitive advantage.

Finally, this thesis benefits the airline industry by highlighting some possible difficulties with the future of airline profitability and offers a possible solution. Specifically, this thesis identifies shrinking margins and price competition as factors that will contribute profitability issues unless alternative means of revenue generation can be found. The airline industry is playing a zero-sum game with price competition and service exclusion that can only lead to severe profitability issues in the future. This thesis offers Service Quality as a novel solution to this problem. Since ancillary sales have become an important part of the low-cost airline's product mix and it is possible that Service Quality could be a driver of these revenue streams. This research demonstrates that Service Quality can indeed affect consumer's buying behaviour and therefore greatly enhance this important revenue stream. While there has been some research into airline services, this research provides a novel comparison and clear link of Service Quality to airline profitability.

## **9.5 Limitations**

Because of their diversity, examining Service Quality in multiple markets is outside the scope of this thesis due to the constraints of time, funding and the logistics of conducting large-scale international research; therefore, this study is limited by its market-specific focus. Following a similar investigation into Service Quality in other markets it may then be possible to consider a global illustration of airline quality; however, time constraints limit the specific results found in this thesis to the UK market.

Furthermore, the process of creating an objective measurement of Service Quality for a given industry possesses some inherent limitations. It does perform admirably in the context to the LCC sector of the airline industry and should easily be applicable to other sectors of the air-travel industry; however, it may not be as effective across a wider array of industries. First, the process is dependent upon available first-person consumer data to carry out the content analysis study. The Skytrax study details an efficient method of collecting qualitative consumer opinion data; however, this specific type of data may be unavailable in some contexts. It would be possible to substitute a different qualitative measure for this process, but any substitute method would most-likely increase the overall time requirements of the research dramatically and would need further examination for its applicability.

The sampling technique was a natural limitation of the HiQUAL study. This may limit the overall statistical inferences that the study can make in relation to a larger population. While the sampling method does include some elements of random sampling, it does not use pure probability sampling techniques. However, employing a pure probability sampling technique would have exceeded the constraints of this study and were therefore unwarranted.

The availability of reliable airline industry data was thought to be a limiting factor. Factors such as Employee Contentment and Lost or Mishandled Baggage could not be accounted for in the final ALSI equation because a lack of consistent reporting or detailed data. Employee contentment could be derived from the average annual turnover of employees; however, Ryanair did not report such figures (unlike EasyJet who seemed proud of reducing staff turnover). Lost or Mishandled Baggage is a value that is reported; however, lack of detail makes it impossible to attribute an incident directly to the airline. It is not certain to what extent these factors would impact the overall ALSI score. However, it does highlight the need for better data collecting and reporting methods in the UK airline industry. Additionally, this factor could significantly limit ALSI's applicability to other industries and contexts given they have

similar (or worse) deficiencies in data collection and reporting; this would need to be examined on an industry-specific basis.

This study examines only one factor affecting airline profitability: ancillary sales. While this is a very relevant issue of profitability for the LCC industry, it is not the only measure available. This study chose ancillary revenues as the unique operating strategy of the LCC industry places significant importance on this type of sales. While ALSI provides an excellent measure of Service Quality for comparison to ancillary revenues, it may not be compatible with other factors affecting airline profitability. For example, Average Load Factor is a clear indicator of airline financial performance; however, since ALSI uses Load Factor as one of its variables, comparing the two would produce biased results.

## 9.6 Implications for Future Research

The first natural opportunity for further research is to use this process to extend ALSI to encompass a wider LCC market in addition to generating a similar metric for traditional carriers. Even though they operate within the same industry, it would still be necessary to begin with a qualitative study. This is would allow the traditional carrier metric to fully account for the characteristics that are unique to traditional carriers<sup>22</sup>.

The methods used in the Skytrax study could provide further research into the determinants of airline quality. Fortunately, Skytrax allows consumer to place comments for almost every airline in the world. It would be interesting to expand this study to define the determinants of airline quality on a global scale. Such research should, most likely, be broken into separate regions (such as: North America, Europe,

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<sup>22</sup> It is important to note that each metric should exist on its own. As each metric would be designed to include the variables that are representative of their particular sector or industry, individual metrics are not comparable across industries.

The Middle East, Asia) as well as with sectors (Traditional Carriers, LCCs, Charter Airlines). Furthermore, many of the responses in Chapter Seven related to the uncomfortable boarding procedures of the LCCs. This was especially prevalent from passengers whom did not purchase priority boarding. General boarding on LCCs requires these passengers to compete for a space in the queue and all board simultaneously, frequently referring to the procedure as “cattle class.” However, this boarding procedure is similar to other forms of public transportation (such as city buses), where such practices are accepted. It would be interesting to investigate what drives this dissatisfaction from the consumers.

Even though HiQUAL has proved a reliable and robust metric when applied to the airline industry, it would be interesting to construct a wholly new model of airline quality, based on Brady and Cronin’s (2001) hierarchical structure. A further reaching Skytrax study could provide sufficient groundwork to replace the third-order factor structure with several airline-specific factors. This could extend the knowledge of the determinants of airline quality by providing a unique industry specific model of the hierarchical nature of airline service. Furthermore, the methods utilised in this PhD could be applied to other service industries other than aviation.

Having began an investigation into Service Quality in the low-cost airline industry, it would be important to examine the relationship between Service Quality, Customer Satisfaction and Loyalty in this context. Doing so could add value to the Customer Satisfaction and Loyalty literature by highlighting their relationship to Service Quality and importance to the airline industry.

## **9.7 Conclusion**

This thesis was inspired by interest in the aviation industry. In the beginning the industry appeared to be facing difficult challenges. It seemed perfect storm of increasing legislation; competition and rising fuel prices would eventually overcome the lacklustre efforts of airline executives. However, some sectors of airline industry



appear to be adapting. This is especially true with the LCCs whom have found success in markets many traditional carriers have been struggling. It is possible these relatively new low-cost airlines will come to dominate the market. Where traditional carriers still survive, the forthcoming marketplace may necessitate they incorporate many of the strategies employed by the low-cost airlines to remain competitive. In the near future, this could make them distinguishable from LCCs in name only.

It seems that the expanding service sector has placed much of the economic power in the hands of the consumers. This is evidenced by the wealth of investment into consumer specific research. While the Service Quality literature may need revitalisation in the academic environment, marketing practitioners seem to be well aware of its potential. EasyJet clearly places a great deal of importance on Service Quality and its potential for competitive advantage. This is not only evidenced by EasyJet's reporting of its yearly Service Quality score and EasyJet's increasing profitability; it appears in Ryanair's changing operating policies as well. With their fervent restructuring of customer service policies, baggage allowances and redesigning of their website, it seems that some players in the low-cost airline industry are beginning to learn the value of Service Quality.

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## APPENDIX: SURVEY

Ryanair or EasyJet: Which is Better?

This survey is intended to capture views of overall quality of the Low-Cost Airline Industry Within the UK. It will be used for purely academic purposes. Any answers given will be completely anonymous. The survey consists of 42 questions and takes around 10 minutes to complete. Some simple demographic questions will be asked at the end of the survey. Answering these questions is not required to complete the survey, however; your response will be greatly appreciated. Thank you very much for your participation in this research project. Jonavan Barnes Postgraduate research Student The University of Stirling Institute for Retail Studies Stirling FK9 4LA [jwb5@stir.ac.uk](mailto:jwb5@stir.ac.uk)

\* Required

1. Have you flown with any of the following airlines: Ryanair or EasyJet \* If No: Skip to question 40.

- Yes
- No

2. How often do you take flights on one of these Low-Cost Carriers? \* Count each flight individually (i.e. Outbound and return = 2 flights).

- Not Often
- 1-2 Flights per year
- 3-4 Flights per year
- 5-6 Flights per year
- More than 6 flights per year

3. How important are the following to your airline experience: \* Try to imagine how each of these variables would influence your overall enjoyment of the flight.

	Not Important	Of Little Importance	No Opinion	Somewhat Important	Very Important
On-Time Performance					
Ticket Price					
In-Flight Services					
Aircraft Cabin Crowdedness					
Route Capacity (the number of flights along a given route)					
Allocated seating					
Baggage Policies/Allowance					

## II. Service Quality

Try to imagine your experience with a low-cost airline in the UK within the last year. If you have flown on more than one airline, use the first that comes into your mind to answer the following questions. Each question requires a response ranging from 1=Strongly Disagree to 7=Strongly agree with 4=No Opinion.

4. Which airline comes to mind? \*

















38. I would say this airline provides superior service. \*

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

39. I believe the airline offers excellent service. \*

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

#### Demographic Data

Questions in this section are optional. All responses will be treated with confidentiality. This information will be utilised solely for academic research and is not intended to be discriminatory in any manner.

40. What is your gender

- Male
- Female

41. What age group do you belong to

- 18-21
- 22-25
- 26-30
- 31-41
- 42-55
- OVER 55

42. What is your student status?

- Undergraduate
- Masters
- PhD Student
- Recent Graduate
- Not a Student

43. Where did you see this survey?

- MyPortal
- Email
- Facebook
- Twitter
- Other: