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**Strategic Windows: Australia- European
Union “Open Skies” Agreement creates
new entrant opportunity for Longhaul
Low Cost Airline Model**

Submitted for Doctor of Philosophy

School of Business
James Cook University
Submitted December 2011

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Statement on the contribution of others

The work in this thesis is entirely my own. Airline performance and financial performance data has been extracted from airline reports, annual reports, business plans and from documents and papers prepared by external consultants. The findings concerning a cost difference between a longhaul low-cost airline and full service airlines was verified by a senior manager in Virgin Australia and a Sydney-based specialist airline industry research organisation. The author is grateful for the information, comments and opinions of respondents interviewed to undertake the research.

Acknowledgements

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I would also like to acknowledge the understanding of my wife, Jenny, who has had to tolerate a mature-age student who has been studying continuously since first undertaking a Masters of Tourism in 1996 followed by a Master of Business by Research. This has been a long and at times arduous journey but in an industry that has always fascinated the researcher ever since his plane-spotting days and following his father into the airline industry.

Abstract

This research has studied the low cost airline sector and whether the well established short haul airline model (1-2 hours flying time) operating in domestic and regional markets can be adapted for low cost, longhaul airline operations. The research to date in this area has been somewhat generalised and speculative. Whilst there is broad agreement that cost reduction strategies applied by short haul low cost airlines are not all transferable to longhaul airline operations given its different characteristics, researchers have stopped short of determining whether the low cost concept can achieve a cost advantage compared to full service airlines. For this research, “longhaul” means Australia to Europe in a market served by more than 12 airlines. More recently, Australia and the European Union have concluded an open skies agreement which creates a strategic window opportunity for new airline entrants. The Agreement applies only to airlines domiciled in Australia or the EU with a majority shareholding held in the country – or bloc (EU). However, as this research shows, a number of Asian and Gulf State airlines operates from Australia via their home hub point into the EU and carry what is termed “fifth freedom” traffic (the freedoms of the air is discussed in Chapter 2) thereby circumventing the above condition. The growth and presence of Gulf State airlines permitted access into Australia is described in chapter 5 as “the elephant in the room” meaning that the capacity granted by the Australian government has placed Australia’s international airlines (Qantas, Jetstar and Virgin) under some pressure. Despite a move towards open skies in aviation markets, much of the industry remains highly regulated. Bilateral agreements between sovereign states still dictates much of international aviation in which government policymakers play a major role in the extent of regulation or opening routes and markets to greater competition.

The underlying theory for this research is the strategic windows concept which belongs in the strategic management and strategic marketing literature. The literature tells us that strategic windows “open” (and close) according to a range of factors and that organisations need to scan and monitor the external environment to detect changes in market conditions that create new opportunities providing the organisation has the capabilities and resources to compete

effectively. Strategic window opportunities in the airline industry arise from deregulation and liberalisation; new routes and new markets such as serving a tourist destination; airport development and incentives offered by airport companies to attract airlines; routes where full service airlines have withdrawn due to high costs or routes overlooked by full service airlines; new business models and new generation longhaul, fuel efficient aircraft.

The low cost airline industry has been described in the literature in many ways – from a concept, a philosophy, a business model, evolution and revolution to a “simplified value proposition to a wider market potential”. Most researchers agree that there are “core principals” that distinguish low cost airlines from full service airlines. The main difference is that low cost airlines have “unbundled” the product to its bare basics and charge passengers for an array of optional extras from using a check-in counter, to stowed baggage, food and beverages and in-flight entertainment. On the one hand low cost airlines adopt cost reduction strategies and on the other hand enhance revenue from ancillary charges and strive to achieve high load factors in all one class seating configuration that has more seats than full service airlines.

Longhaul, low cost is not a contemporary concept. It evolved from charter airlines that emerged post World War 2 predominantly in Europe and the late Sir Freddie Laker who first pioneered the “no frills” concept in the 1970’s carrying over 4 million passengers across the North Atlantic before the airline’s collapse due to a number of factors that all conspired against the airline. Some three decades later further attempts by independent entrepreneurs to establish the longhaul, low cost concept in different markets have also failed, for example Oasis Airlines of Hong Kong which flew from Hong Kong to London Gatwick in what one aviation critic described as “wrong aircraft, wrong model, and wrong management”.

In contrast to the rich abundance of literature written on the short haul model, the concept of low cost, longhaul has received very little attention from academic researchers. This research has used the case study method which is suited to “a

phenomena in the making” to gain novel and rich insights where the research is of a strategic, evaluative nature. This description was imminently suitable for the type of research investigated. Eisenhardt (1989) adds that case study research has legitimacy where there are situations where there are few theoretical foundations and exact measures for the key variables. The strength of the case study approach is that it enables one to capture reality in considerable detail; more than is possible with surveys, experiments or field studies. Two case studies on low cost airlines have been developed. Jetstar is a subsidiary airline of Qantas and has migrated from being a domestic airline to an international airline which has its different set of operating characteristics. Kuala Lumpur based Air Asia – now Asia’s largest low cost airline and with reportedly the lowest unit cost as measured by cost per seat kilometre has transitioned from short haul to medium and longhaul operations. In contrast to Jetstar, Air Asia is an independent airline which has established franchise operations but more recently has concluded a share swap with government owned Malaysian Airlines. Both airlines have competitive advantages in their respective markets.

The key findings from this research has determined that a longhaul, low cost airline entering the Australia-EU market could attain a minimum of 13 per cent cost saving (measured in terms of cost per available seat kilometre) compared to the lowest cost full service airline model (Emirates Air) and that a figure of 17 per cent differential is realistically attainable for a carrier such as Jetstar compared to its parent owner, Qantas operating between Australia and Europe. In order to build a longhaul low cost airline model a total of 20 different factors were examined and analysed – mainly operating characteristics and marketing issues. It was found that there are some important differences between short haul and longhaul, for example aircraft utilisation, airports required including major hubs, turnaround times, crew numbers and rest periods, the use of alliances, distribution and branding. Whilst some elements are transferable, others are not or would require some adaptation. The findings were verified by two external aviation sources and verified by comparing the cost differential established, vis. a vis longhaul versus shorthaul. One source observed that flight management is very critical for longhaul sectors because of its impact on fuel consumption, the highest

airline expense cost. Two further analyses were undertaken to validate the findings. First, a comparison of the data between Qantas and Jetstar's operating cost on routes between Australia and Asia; and secondly, a comparison with modelling undertaken by the Boeing Airplane Company.

The findings from this research will develop a greater understanding of the commercial airline industry for future action on three levels. Firstly, an understanding of bilateral agreements that govern the operation of air services between countries and aviation policy settings and in particular where strategic window opportunities arise for new market entry. Secondly, a business model for longhaul low cost airline operations; and thirdly, markets where the carrier-within-a-carrier strategy supported by strong financial parent owners could be deployed in which a low cost subsidiary operation complements a full service parent owner operation. The research has illustrated the difficulty for independent; longhaul low cost airlines to have sustainable business models and operate in markets where there are well established full service airlines. Finally, aviation research in the Asia-Pacific region is relatively in its infancy compared to the depth and scope of airline research conducted in Europe and North America. From an Australian perspective, international airline services are vitally important as links to the world for trade and tourism. If inbound tourism is to grow and prosper and draw tourists from distant markets, the concept of a low cost longhaul airline operating between Europe and Australia could potentially develop new market segments. There has been much change in the aviation landscape in recent years in the Asia Pacific region, identified by IATA as the world's fastest growing region for airline traffic. Therefore, this research provides invaluable insights and adds immeasurably to the body of airline literature from an Asia-Pacific perspective.

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Chapter 1

INTRODUCTION

1.1 Background to Research

Ever since the first commercial airlines began carrying fare-paying passengers, airline managers have sought ways to lower the cost of air travel (Cobb 2005; Dobson 1995; Tretheway 2002). In 1952, economy air fares were initiated by Pan American when the carrier introduced “clipper class” on flights between New York and San Juan, Puerto Rico (Doganis 2005). In the 1950’s/1960’s charter airlines introduced the concept of “low cost” based on a full aircraft but unlike scheduled airlines, charters were irregular and it was the responsibility of the charterer to fill the number of seats (Doganis 2005). It was not until the arrival of the wide bodied Boeing 747 “jumbo jet” acquired by most of the world’s leading airlines in the 1970s-1980s that saw a significant fall in the cost of air travel in real terms (Turnbull 1999). The first breakthrough in developing and operating a new business model occurred following deregulation in the USA in 1978 when Southwest Airlines – now the fifth largest airline in the USA by passenger numbers, developed a low cost model thereby introducing the concept of “low-cost, no frills” low fares to stimulate air travel (Bailey 2002; Blaha 2003).

Some three decades later and at the beginning of the 21st century strategic window openings became created as many full service airlines were burdened by high cost structures and unprofitable routes especially on short haul routes (1-2 hours flying time) and coupled with aviation liberalization in many parts of the world these twin effects resulted in many new start-up low-cost, no frills airlines entering markets. Almost a decade later many of these start-ups have gone out of business but those who are left have grown their businesses and forced full service airlines into adapting their product in order to remain competitive. The International Air Transport Association (IATA) stated that 17 per cent of the world’s air traffic now travels on a low cost airline (IATA 2010). In Europe, Irish-based Ryanair, an ultra low cost airline (a term used to describe an airline that has totally unbundled the product to its bare basics) is now the largest airline

in Europe carrying over 40 million passengers per annum and has a market capitalization value higher than British Airways (Barrett 2009).

The idea of a low-cost, “no frills” *long-haul* airline is not new but most previous attempts to sustain scheduled services such as Laker Airways (Shaw 2007) and People Express (Kochneff 2004) in the 1970s/early 1980s have ended in failure. Since this time only limited attempts have since been made by independent, private start-ups with most collapsing because they simply ran out of money or in the case of Oasis Hong Kong Airlines, they had “the wrong aircraft, the wrong model, and the wrong management” (Ballantyne 2008). Oasis Airlines entered the Hong Kong/London route already occupied by some strong airlines – British Airways, Cathay Pacific and Virgin Atlantic but believed there was room for a low cost/low fare airline. The airline leased old Boeing 747’s which resulted in high operating costs and too many seats to fill including offering 82 premium class seats (King and Kuilman 2008). The airline’s founders, Raymond and Priscilla Lee had no previous airline experience and was under capitalized incurring accrued losses of HK\$1.2 billion before filing for liquidation (KPMG 2008).

Attempts by Air Asia X – a franchise airline of Air Asia, Asia’s largest low cost airline, to establish low cost/low fare services between Kuala Lumpur and London Gatwick and Paris Orly were relatively shortlived. The airline cited that flights of up to 8 hours were better suited to its business model rather than 12 hour flight times (Air Asia 2012). Air Asia is one of two case studies examined in this thesis.

A major impediment to low-cost longhaul is the system of airline bilateral agreements and “over-fly” rights over another sovereign state that still governs much of international aviation. Unlike the movement of free trade, international airline access into states is governed by a system of bilateral air agreements negotiated between sovereign states that determine capacity and frequencies (Dobson 1995). The regulatory framework governing international air services is complex. While most sectors of international trade operate on the presumption that the market is open unless governments restrict that market, international aviation is different as the market is closed until governments act to open the

market. The underlying framework for the regulation of international aviation is contained in the 1944 Convention on International Civil Aviation, which is commonly referred to as the Chicago Convention. The *Air Navigation Act 1920* gives effect to the Chicago Convention in Australia.

International aviation is governed by a series of government to government bilateral treaties determining levels of market access for countries' respective airlines. Over 3,500 of these bilateral air services agreements are in place, operating for the most part outside the World Trade Organisation (WTO) and international free trade agreements frameworks. An understanding of airline traffic rights has always proved difficult for researchers unfamiliar with aviation terms such as "the freedoms of the air", airline bilateral agreements and "open skies" which are discussed in chapter 2. As an island continent geographically isolated from major international markets, Australia is more reliant on international aviation than any other country. International air services provide vital connections to global markets for Australian businesses and the tourism industry, generating billions of dollars for the Australian economy.

More recently, there has been a move towards open skies led by the USA which arguably had the most to gain for its airlines; however, the move to open skies and liberalization of markets has been one of gradualism and not embraced by many countries that are protective of their national carrier (Forsyth 2006). Australia has adopted a cautious approach to open skies but views liberalisation within the bilateral system as likely to remain the only way to open up aviation markets for the foreseeable future (White Paper 2009). In 2009 Australia concluded an open skies agreement with the European Union with an expectation this would lead to new entrants such as allowing any European based airline to operate from any point within the EU to Australia. It also freed up entry into the EU by an Australian owned airline; however, Qantas concentrates its operations into London Heathrow and serves Frankfurt four times weekly. Virgin Australia is operating longhaul to Abu Dhabi under a code share agreement with Etihad Airways and feeding traffic into Etihad's European network. The Australia-EU agreement replaced former agreements Australia held with various EU member countries. However, thus far there is a yawning chasm between policy settings and policy

outcomes as no European airline has exercised rights under this agreement and no Australian airline (Qantas, Jetstar and Virgin) have opened new gateways into Europe. Jetstar is, however, planning to enter southern Europe once it has acquired the new Boeing 787.

Attempts to establish a longhaul, low cost airline operation between Australia and the EU have been relatively inconsequential but not helped by the regulatory authorities. In the 1970s British Caledonian Airways (BCal), a private independent airline that became the UK's "second airline" (most countries operated one national airline that was usually government owned) thus "second airlines" were more rare (except in the USA which had Pan American and Trans World Airways operating internationally) obtained the rights to operate a limited number of charters from the United Kingdom to Australia but such was the regulatory environment they were forced to land at Alice Springs in the middle of Australia (Thaxter 2007). Australia's aviation regulatory authority was not prepared to grant landing rights into an eastern seaboard gateway. BCal was acquired by British Airways in 1987. In the early 1980s Laker Airways planned to extend his "Skytrain" product (a no frills, longhaul low cost service) to Australia from the UK but again regulatory authorities in both the UK and Australia were staunchly opposed and suspicious of Laker (Shaw 2007). At the time, these operators were attempting to break new ground in a period when the UK and Australian governments each owned their respective national airlines. In 2007, the President of Emirates Air, Tim Clark touted that the new Airbus A380 could allow Emirates to operate a one-stop service from the UK to Australia in an all economy class configuration with over 800 seats with on board self-help food and refreshment stations for an air fare of under UK500 pounds one way.

Today's operating environment has changed. The global economic situation has deteriorated, there has been several "aviation shocks" such as volcanic ash (Iceland and Chile) closing airports, the H1N1 (swine flu), a spike in aviation fuel prices all resulting in accumulative airline losses exceeding \$10 billion amongst the world's airlines as reported by IATA (IATA 2010) as airlines struggled to survive. The response by full service national airlines (a country's flag carrier) has been to rationalize and consolidate including mergers especially in Europe

and the USA coupled with strategic alliances and code-sharing which is now a common marketing strategy used by most national airlines.

The strategic window opening created by the Australia-EU open skies agreement seemingly suggests that a low cost airline would gain a competitive advantage by entering this market given the assumption that by being “low cost” its operating cost would be lower than full service, network airlines. Research in this area is limited and somewhat speculative and generalized, for example Morell (2008); Pels (2008), and Wensveen and Leick (2009) discuss low cost longhaul as a concept but stopped short of determining whether a cost advantage is achievable. It would also be wrong to assume that the product offering for short haul flights (1-2 hours) would be acceptable to airline consumers. A new longhaul, low-cost model would answer the question posed by Francis, Humphreys, Ison and Aicken (2006) of “where next” for low cost airlines meaning that once growth opportunities in short haul markets become exhausted low cost airlines would look for new opportunities in longhaul markets.

This thesis examines the strategic window concept in an airline setting. For this purpose two case studies have been compiled to exemplify the application of the strategic windows theory to the aviation industry. Strategic windows is discussed in the next section and seemed an imminently suitable research theory to examine new route entry in the airline industry. The thesis advances the knowledge of the probable next advancement in the airline industry by examining whether a cost differential for a longhaul, low-cost airline can be attained compared to full service airlines. For this purpose “cost per available seat kilometer” (CASK) is applied throughout the thesis which is the industry benchmark when comparing the operating cost of various airlines. The following discussion briefly outlines the strategic window concept and how it relates to the commercial aviation industry.

1.1.2 Strategic Windows

The concept of *strategic windows* originated as an area of research for enquiry in the 1950s and 1960s and belongs in the strategic management and strategic marketing literature. The term “strategic windows” is used to describe that there

are often only limited periods when the 'fit' between the 'key requirements' of a market and particular competences of a firm competing in that market is at an optimum (Wilson and Gilligan 2008). Abell (1978) recognized the strategic window concept and described it in terms of marketing management practice, and in particular strategic marketing activities around predictors of future patterns of market evolution and to make assessments of the firm's capabilities to deal with new business opportunities and stressed the importance of the timing (both entry and exit) of any given strategy (Abell, p.26).

Fletcher and Brown (2002) and Wilson and Gilligan (2008) succinctly state that firms assess their competitors and sets goals and strategies to meet all existing and potential competitors; and then reassesses each strategy annually or quarterly to determine how it has been implemented and whether it has succeeded or needs replacement by a new strategy to meet changed circumstances, new technology, new competitors or a new economic, social or political environment. Several authors have described *strategic windows* in terms of investment in a product line or market area that has to be timed to coincide with periods in which a strategic window is open, i.e. where a close fit exists (Hunger and Wheelan 2003; Stahl and Grigsby 2001; Viljoen 1994). Just as a strategic window can be "open", disinvestment, exit or withdrawal from a market should be considered if, during the course of a market's evolution, changes in market requirements outstrip the firm's capability to adapt itself to new circumstances (Wilson and Gilligan 2008). For instance, Schnell (2003) in his examination of European airlines examined whether the effectiveness of strategies changed as a consequence of low cost airlines entering markets and challenging long established airlines often tied by legacy industrial relations agreements.

The strategic marketing literature has discussed strategic windows as a concept in which all markets undergo evolutionary change and that if an organisation correctly analyses its external environment carefully this change is predictable to a greater or lesser extent (Hunger and Wheelan 2003; Johnson and Scholes 1993; Stahl and Grigsby 2001). According to Viljoen (1994) organisations can create new business opportunities and successfully implement a strategic initiative because *strategic windows* bring together the twin notions of environmental

scanning and organisational capabilities which are central to strategic management. Hunger and Wheelan (2003) and Viljoen (1994) emphasise that organisations possess skills and competencies which may be suited to the direction of change in a market at one point in time but not at another. Stahl and Grigsby (2001) observed in their study of different organisations spanning different industries that firms need not possess the skills and/or capabilities when making their strategic intentions but they have to acquire them if they want to succeed in a particular market. For example, Malaysian-based Air Asia was reborn from the remnants of an ailing domestic airline but with clear strategy goals and recruiting the right people skills across many disciplines it has grown to become the biggest low cost airline in Asia (CAPA 2010). Figure 1.1 shows the strategic window following an analysis of the organisation's resources and environment to determine the opportunity analysis.

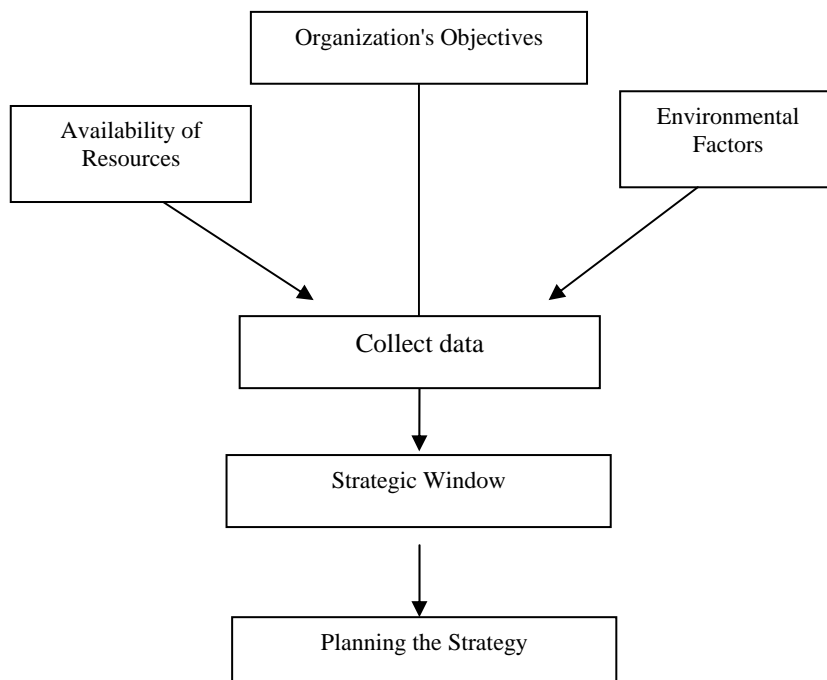


Figure 1.1: Strategic window opportunity. Adopted by the researcher from Hunger and Wheelan 2003; Johnson and Scholes 1993; Viljoen 1994.

Strategic windows, open skies and Australia's aviation policy

According to the Aviation Branch of Australia's Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG), Australia is considered to be at "the end of the line" when referring to the Europe to Australia "Kangaroo route" compared to "fifth freedom" Asian and Gulf State based carriers (DITRDLG 2009). Technically Asian and Gulf State airlines do not have traffic rights between Australia and the EU; however, they are able to exploit their geographic position and "hub" passengers via an en route transfer airport (with or without stopover) between Australia and the EU by combining rights held with Australia and with the EU. This is illustrated in Section 1.4 further on. It is a perplexing policy issue implemented by the Australian government in granting very generous traffic rights to Gulf State airlines (Emirates Air, Etihad and Qatar Airways) that collectively operate over 85 flights a week from four Australian gateways for traffic predominantly destined for Europe. The presence of fifth freedom carriers some of which receive direct and indirect subsidies from their government has brought new competitive pressures into the market, especially for Qantas and impacts on new route entry.

The policy shift by the Australian government in concluding an open skies agreement with the EU symbolizes the new thinking amongst government aviation regulators in many countries. As observed by several researchers, international aviation access has remained one of the most protected industries in the world compared to other industries (Bisignani 2003; Button 2001; Dobson 1995; Doganis 2005; Turnbull 1999) and many national airlines receive direct or indirect assistance from their governments, for instance Sochor (1991) two decades ago wrote about the politics of international aviation. The open skies concept was first discussed at the *Chicago Convention 1944* but the post World War 2 environment and rise of communism in Eastern Europe, the USSR and China and resultant three decades of cold war distrust was not conducive to liberalizing fly over rights (Button 2001; Dobson 1995). However, notwithstanding the cold war years the US government pressed on with its move towards the "open skies" concept buoyed by the success of domestic deregulation in 1978 in order to win greater Trans Atlantic freedoms for their own airlines. The days of national airlines being owned by governments and shielding behind protectionism have

largely disappeared although as the Director-General of the International Airline Transport Association (IATA) which is the peak airline body representing most of the world's major airlines, bemoaned there is still much work to do in terms of liberalization and achieving completely open skies (Bisignani 2009).

The analysis of recent developments in aviation shows that:

1. The rapid growth of the low-cost airline sector and its emergence from single aisle, one class short haul operations to twin aisle, two-class “no frills” medium-haul services between Australia and Asia; and the introduction of low cost/low fare airline Air Asia X operating from Kuala Lumpur to London Stansted and Paris Orly;
2. The “open skies” air agreement between Australia and the EU leading to possible new entrants with different business models;
3. The consolidation of the airline industry into major alliance groups and the increasing use of code-share agreements;
4. The substantial increase in capacity and frequencies granted by Australia's International Air Services Commission to Gulf State airlines; and the exploitation of Australia-Europe traffic by Asian and Gulf State “fifth freedom” carriers;
5. The segmentation approach being taken by some major airlines under a “one airline/two brands” termed a carrier-within-a-carrier strategy that segments routes according to the predominant traffic type;
6. The difficulty experienced by independent new start-up low-cost longhaul airlines and their ability to sustain services.

1.1.3 Key Terms

The following discussion provides an overview of the key areas addressed in this thesis. It presents the research topic and the research problems that are investigated, justifies the relevance of the study on the basis of the gaps that were identified in the literature from chapter 2, introduces the methodology used to find answers to the research problems, explains the limitations of the thesis, and the key assumptions under which the research is conducted.

Low Cost Airlines

Academic interest in the LCC phenomenon has observed the impact of low cost airlines and how they have significantly changed the airline industry (Bailey 2002; Doganis 2005; Francis *et al.* 2006; Lawton 2002; O'Connell & Williams 2005; Piga, Filippi & Bachis 2001). This includes new route entry; franchising; operating from secondary airports; eliminating the frills to the bare basics; charging passengers for ancillary services and winning market share against full service, network airlines. LCCs have changed the way airlines and airports interrelate, increased the contracting out of services from check-in agents to ramp handling, the way consumer's book travel such as offering a fare reduction to book via the Internet to employment conditions such as casual contract labours compared to legacy arrangements held by long serving employees in full service airlines performing similar tasks (Alamdari and Fagan 2005; Ergas and Findlay 2004; O'Connell and Williams 2005; Wensveen 2007). Cobb (2005) went so far to state that today's airlines needed to adopt a low-cost strategy because of changes in the operating environment such as competition and the global economy, consumer purchasing power and industry maturity. Tretheway (2004, p.13) observed that today's low-cost carrier model "is not a fad, but rather a business model with a permanent role in the market place that undermines the price discriminating ability of the full cost carriers and is the most important pricing development in the industry in the past 25 years."

Focus on cost reduction strategies

The overall strategy of a low-cost airline is to reduce costs and to seek ways of lowering costs and offering a "no frills" type of service in order to reduce prices to stimulate demand and maximize revenue. LCC operating costs have been calculated to be between 25 and 40 per cent lower compared to network airlines through a range of cost reduction methods used (Alamdari and Fagan 2005; Blaha 2003; Ergas and Findlay 2004; US General Accounting Office 2004). Besides operational cost savings, LCCs have made fundamental changes to the product offering such as promoting only a "headline fare" and charging for all other (optional) services (Tretheway 2002; Ergas and Findlay 2004; Morell 2008; Creedy 2010). This includes offering a "seat only" and charging for check-in at an airport counter, to stowed baggage, food and beverages and on board

entertainment. Irish-based ultra low cost airline Ryanair – now the largest in the EU whether measured by passenger numbers, number of aircraft or market capitalization value; went so far as to propose abolishing aircraft toilets in a move designed to reduce the weight of the aircraft (Eyal 2009). New low-cost airlines with new business models has made it difficult for full service airlines (FSAs) to compete on short haul (1-2 hours flying time) journeys because of (a) their higher cost structure and (b) low fare competition has aspects of predatory behaviour (Gorin and Belobaba 2008; Mason 2001; O’Connell and Williams 2005; Tretheway 2004; Wensveen and Leick 2009). However, FSAs have not had to contend with the same competitive challenge on longhaul services partly because doubts exist whether a longhaul, low cost model can work, and partly because the system of bilateral air agreements acts as a barrier to entry.

1.1.4 Business Models

The global airline industry operates in periods of survival, adaptation, recovery and innovation, resulting in the need for flexible business strategies (Wensveen and Leick 2009). Although these researchers agree on a common set of core principles, the fundamental problem as Mason and Morrison (2008) observed is that no consistent or standardised approach exists in analysing airline business models. For instance, Francis *et al.* (2006) have observed that it is more appropriate to use the plural "models" and developed a typology of low cost carriers under which it is possible to conceptually categorise five broad types of low cost carriers. Morrison (2006) adopted a different model for low cost carriers classifying some as "value-based carriers" and others as "low fare carriers" with some overlap between the two types. Wensveen and Leick (2009) went further and proposed a new business model based on three types of emerging carriers; a network specialist, a product specialist, or a price specialist. Whilst the literature highlights that there are several variants and debate amongst academic researchers concerning the low-cost airline model, Wensveen and Leick (2009) considered it more important to develop a sound business plan drawing this conclusion from their analysis of airline longhaul failures.

Carrier within a carrier (CWC) strategy

CWC has been a strategic response by full service airlines to low cost airline competition by establishing subsidiary airlines to defend market share, develop new markets and to combat the growth of low cost carriers (Graham and Vowles 2006). However, it is an overlooked topic in the contemporary literature as the notion of a full service airline operating a subsidiary airline carries a stigma because of the failure by British Airways with its foray into “low-cost, no frills budget travel” with “Go” as well as other failures on both sides of the Atlantic (Dobruszkes 2006; Mason and Alamdari 2007; Pate and Beaumont 2006). Lindstadt and Fauser (2004) proffer an explanation in doubting whether network carriers could create distinctive business streams on one integrated production platform. These authors observed that problems arise with different operating parameters, a different culture being required and a poor strategic fit within the parent airline. However, more recently several major airlines have established successful subsidiary airlines operating in short to medium haul markets with sector flight times of up to 4-5 hours. For example, in the Asia-Pacific region Air India, Cathay Pacific, Singapore Airlines and Qantas all operate subsidiary airlines. On 25 May 2011 Singapore Airlines announced its intention to launch a longhaul low fare, no frills airline with wide bodied aircraft to target what it considered a new market segment (Creedy 2011). The CWC strategy is an integral part of this research as Australia’s Qantas plans to operate its subsidiary, Jetstar into southern Europe markets. CWC strategy is discussed in chapter 2.

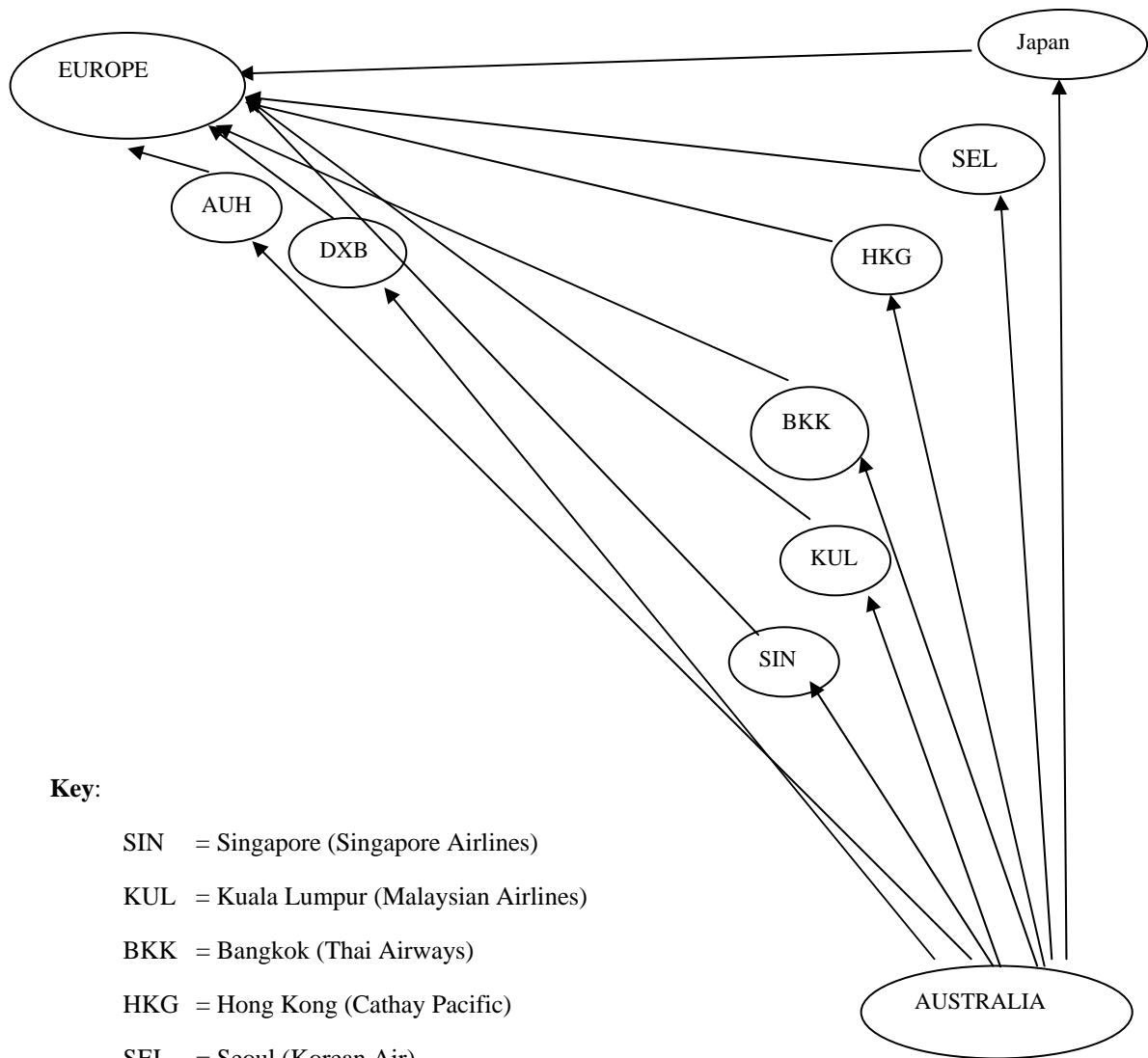
1.1.5 The Australia-Europe market

Australia’s international aviation policy is to grant capacity increases ahead of demand. According to the Australian Government White Paper released in December 2009, the Government has identified a number of key goals for the industry over the coming years within a flexible policy framework that can accommodate growth in international markets over the medium to long-term, with a focus on key markets, while maintaining a strong Australian based industry (Department of Infrastructure, Transport, Regional Economics and Local Government White Paper on Aviation Policy 2009).

In framing its international policy settings, the Government aims to:

- improve opportunities for Australian carriers to access international markets;
- increase competition and choice for Australian and foreign travellers on international routes to and from Australia; and
- to improve trade and tourism opportunities for Australian industry.

The Australia-Europe market has no less than twelve airlines competing for a share of the traffic in which the United Kingdom is the main European destination by Australian travelers (BTRE 2010). According to BTIRE data, Qantas, Singapore Airlines and Emirates Air are the dominant carriers (BTIRE 2010). Although only Qantas, British Airways and Virgin Atlantic are the only same through aircraft serving Australia to London Heathrow, Asian and Gulf State airlines offer a seamless transfer service through their home hub points. In addition to those carriers serving Australia directly, there are several European carriers (Finnair, Lufthansa, Swiss, and Air France) that operate into south Asian airports who have alliance partners for on-carriage to/from Australia. Figure 1.2 below illustrates the hub points used by Asian and Gulf State airlines to carry “fifth freedom” Australia-Europe traffic. Table 1.1 sets out the carriers operating from Australia to Europe and their en route hub points and number of frequencies.



Key:

- SIN = Singapore (Singapore Airlines)
- KUL = Kuala Lumpur (Malaysian Airlines)
- BKK = Bangkok (Thai Airways)
- HKG = Hong Kong (Cathay Pacific)
- SEL = Seoul (Korean Air)
- DXB = Dubai (Emirates Air)
- AUH = Abu Dhabi (Etihad Airways)

Figure 1.2: Asian and Gulf State hub carriers on the Australia/Europe route via the Eastern Hemisphere

(Note – not shown are lesser hub points such as Bandar Seri Begawan (Brunei) and Taipei (Taiwan). In December 2009, Qatar Airways introduced services between Melbourne and Doha highlighting onward services to Europe).

Table 1.1 Carriers and frequencies operating on the Eastern Hemisphere route – as at 31 December 2011

Carrier	Australian gateways	Hub point	Total number of frequencies per week
Qantas	Sydney, Melbourne, Brisbane, Perth, Adelaide, Cairns, Darwin	Singapore, Bangkok, Hong Kong	72 (28 services operate into London Heathrow plus 4 per week to Frankfurt)
British Airways	Sydney, Melbourne	Singapore and Bangkok – code share with Qantas	14
Virgin Atlantic	Sydney	Through service - one stop via Hong Kong	7
Singapore Airlines	Sydney, Melbourne, Brisbane, Perth, Adelaide	Singapore	over 90 flights per week between Australia and Singapore (operates 21 services to Heathrow plus 7 into Manchester)
Cathay Pacific	Sydney, Melbourne, Brisbane, Perth, Adelaide, Cairns	Hong Kong	46 (operates 21 services per week into London plus 7 to Manchester)
Malaysia Airlines	Sydney, Melbourne, Brisbane, Perth, Adelaide	Kuala Lumpur	38
Air Asia	Gold Coast, Melbourne, Perth	Kuala Lumpur	Exited market to Europe
Thai International	Sydney, Melbourne, Brisbane, Perth	Bangkok	28
Eva Air	Sydney, Brisbane	Taipei	8
China Southern	Sydney, Melbourne, Brisbane	Shanghai Guangzhou	18
Emirates Air	Sydney, Melbourne, Brisbane, Perth	Dubai	56 (operates into 6 UK ports)
Etihad Airways	Sydney, Brisbane	Abu Dhabi	17
Qatar Airways	Melbourne	Doha	4
Royal Brunei	Perth	Bandar Seri Begawan	4
Japan Air Lines	Sydney, Melbourne, Perth	Tokyo (Narita) and Osaka	21
Korean Air	Sydney, Melbourne, Brisbane,	Seoul (Incheon)	15

Sourced from Airline Timetables - as at December, 2011.

1.2 Research Problem

The research problem is to determine whether a longhaul, low cost airline based on the core principles of low cost can achieve a cost advantage compared to FSAs and to identify where transferable elements from the short haul model can be adapted for longhaul operations. Whilst there has been extensive debate and discussion concerning the short haul low-cost airline model, there is a void in the research when considering the different operational characteristics for longhaul airline operations. This research is contemporary in that it examines a specific area of research that is in its emergent state but advances our knowledge by establishing (1) a cost differential vis.a. vis low cost longhaul compared to FSAs and whether a cost advantage can be attained; and (2) defining the transferable elements from short haul airline operations to longhaul operations. Although longhaul airline operations has a high variable component when factoring in aircraft performance, fuel burn, weight, the effect of favourable /unfavourable winds and cruise speed/altitude, it is not the intention of this research to specify technical and operating performance of aircraft suffice to acknowledge that aircraft flight management is a critical part in controlling cost. Some researchers (Doganis 2005; Francis *et al.* 2007; Morell 2008) have observed that longhaul airline operations traverse continents, cross different time zones and require en route refueling, crew changes and longer crew rest periods and need to operate into major airports that all add costs. From the airline consumer's perspective what may be an acceptable offering by LCCs for short flight times may not be acceptable for longhaul, overnight flights. For instance, seating configuration and seat pitch (distance between rows of seats) and in-flight entertainment as well as meals and refreshment service, baggage allowances are issues for airline managers.

To an outsider looking in to the airline industry a perplexing question is the restrictive nature of why airlines cannot fly where they choose compared to other industries and the movement of free trade (Goh 2004). Related to the research problem is the little understood system of airline bilateral agreements between states and the freedoms of the air, and the trend towards open skies which impacts strategic window opportunities for route entry, access, and capacity.

Research Questions and Objectives

Given the research problem identified above, the aim of this thesis is to *examine if the strategic window opportunity created by “open skies” creates an opportunity for an Australian-based low cost carrier to enter the Australia-Europe market.*

The specific research questions addressed are:

1. Assess the size and scope of the strategic window that has opened with the new Australia- EU open skies agreement for the entry of an Australian based low-cost, airline to enter this market.
2. Given the introduction of Jetstar services on routes between Australia and Asia, does it mean Qantas will adopt a similar strategy with its carrier-within-a-carrier strategy, can this model be extended to longhaul operations to Europe?
3. Can a longhaul low-cost airline entrant achieve a cost advantage compared to full service airlines?
4. What elements of the short haul model can be transferred to longhaul airline operations and to identify what differences apply?
5. Build an understanding of the reasons for failure experienced by past low-cost longhaul failures to avoid repetition in the future.

1.3. Justification for Research

The strategic windows concept is a universal business concept used by firms to assess new business opportunities. It is what Mintzberg (1994) describes as emerging strategy or one of gradualism and usually related to the firm's core activities. The strategic windows concept is closely related to vertical integration or horizontal diversification and market development found in the marketing literature. The concept of strategic window opportunities has become popularised in planning strategic initiatives because it brings together the twin notions of environmental scanning and organisational capabilities which according to Viljoen (2004) are central to strategic management. Robert (1993) claims that decisions about which products and services to offer, the customers to be served, the market segments in which to operate, and the geographic areas of operations should be made on the basis of a single "driving force".

Research in the area of low-cost air transport operating between Australia and Europe is required for a number of reasons:

1. There is a need to test the strategic windows theory in an airline setting. Airlines enter markets for a range of reasons such as new tourism, trade, liberalization changes, socio-demographic changes including population shifts and the availability of new, long range aircraft. Over the past five years, Australia's national airline, Qantas has seen its market share eroding as increased competition from Asian and Gulf State airlines provide alternative route options and stopovers. The Bureau of Transport and Regional Economics (BTRE) found that eight out of ten passengers departing Australia for an overseas destination now depart on a foreign airline (BTRE 2011).
2. Given a past history of failure by low cost longhaul airlines to sustain operations and remain viable, it is important to build an understanding of the reasons for failure and what lessons can be learned. There has been two 'waves' of low cost longhaul entry. The first wave in the 1970s/early 1980s by Laker airways with "Skytrain" and the second wave in the past decade with carriers such as Zoom (Canada) and Oasis Airlines (Hong Kong). The failure of low cost longhaul contrasts markedly with the success of low cost short haul although it should be noted that the failure rate of new low cost short haul start-ups is about 50% of new ventures (AEA 2010) but they attract little attention.
3. CWC has re-emerged and has been successfully implemented by several Asian airlines as well as in Australia and has gone relatively unnoticed by academic researchers. Table 1.2 highlights the number of airline parent owners in Asia-Pacific and their CWC subsidiaries. CWC is a strategic response by FSAs on two fronts. First, to combat LCCs and defend market share and second, a strategy to enter markets using a low cost model when full service parent airlines with higher costs either withdraw from a route or market because of unsatisfactory cost recovery.

Table 1.2 Airlines in Asia Pacific with subsidiaries

Parent owner airline	Subsidiary airlines
Cathay Pacific	Dragonair
Air India	Air India Express
Singapore Airlines	Silkair Tiger Airways Scoot – a new longhaul LCC to be launched in mid 2012
Qantas	Jetstar Jetstar Asia (Singapore based) Jetstar Vietnam (24% owned)
Japan Air Lines	JAL Express Jetstar Japan (a new LCC to be launched in 2012 with JAL, Qantas and Mitsubishi as its shareholders)

4. The airline industry has experienced a number of “shocks” over the past decade and financial survival has been a paramount objective in an industry that is notoriously known for its mounting losses and poor return on capital invested. The reality is that very few of the world’s full service, network airlines generate annual operating profits which is in contrast to the performance of LCCs (IATA 2011). The industry is being pulled in two different directions. On the one hand, network, national airlines have moved towards consolidation and mergers, and strengthening alliance partner agreements, shedding staff and endeavouring to seek cost reduction. On the other hand, LCCs continue to gain market share, open new routes, pursue growth opportunities, have a different culture and remain fiercely independent.
5. Despite airline shocks afflictin the industry it has shown some resilience. For example, the Australia/Europe market has grown by a steady 7-8 per cent per year over the past 5 years and is a substantial market with more than 6 million annual passenger trips in each direction and is forecast to grow by around 5 per cent per annum over the next two decades despite expected rising air fares due to carbon or fuel emission taxes, and other add-ons such as enhanced airport security and other charges (Tourism Australia 2010). Thus, as the focus of this research is on the supply side, it is vindicated on two levels. First, growth over the past five years and forecast

growth and second, the policy approach adopted by government in granting capacity increases to and from Australia ahead of demand.

6. The inbound tourism industry is a significant export industry for Australia with long term forecasts projecting a doubling of visitor arrivals from 5.2 million per annum in 2008-09 to 10 million visitors by 2018 (Tourism Australia 2008). Since 2001 the Australian tourism industry has been through a turbulent period from the effects of terrorism, Severe Acute Respiratory Syndrome (SARS), bird flu in Asia and the A/H1N1 (swine flu) epidemic, and the global financial crisis. According to Tourism Australia, the Australian tourism industry employs more than 500,000 people and many more other small industries and employees rely on the multiplier effect derived from the successive rounds of tourism expenditure (Tourism Australia 2008). Price competitiveness – as well as attractiveness and desirability of the destination and access to low fares are important drivers for inbound tourism.

1.3.1 Applications of the Findings of this Research

To test the *strategic window opportunity* created by the “open skies” Australia-EU air agreement the findings of this research will determine whether a low-cost longhaul airline model can achieve a cost differential compared to full service airlines in order to enter longhaul markets. However, in an industry where competition is fiercely competitive, a cost advantage is only one part of sustaining entry into a particular market. Other factors such as an airline’s capital base, access to working capital, and airline management experience are all imperative to survive in the airline industry.

The re-emergence of the carrier-within-a-carrier strategy whilst not a panacea for all major, full service airlines with high network costs, appears to be a sound strategy and complies to the strategic windows theory. CWC can be adopted to defend market share from predators as well as grow market share by contesting new routes or operating on routes where the low cost subsidiary has a cost advantage compared to the parent airline. CWC strategy has the potential to create new markets especially amongst the younger set of travelers who may be prepared

to forego some areas of comfort for a more competitive air fare. A further benefit of CWC strategy is that skills acquired by the parent owner can transcend over to the subsidiary. In many respects CWC strategy could be said to be still going through a learning phase. There is a need for further research into the CWC strategy such as the independence/reliance of such carriers and the relationship with the parent owner including use of resources (financial, technical, operating, and marketing) and the impact of CWC on markets where the one airline/two brands segmentation approach has been applied.

Research to date highlights there is no agreement on a business model for a longhaul airline operation. The findings from this research will attempt to establish a contemporary business model and what elements can be transferred from the short-haul model to long-haul airline operations including whether a cost differential is attainable compared to a full service airline.

In summary, the findings will develop a greater understanding of the commercial airline industry for future action on three levels. Firstly, an understanding of bilateral agreements that govern the operation of air services between countries and aviation policy settings and in particular where strategic window opportunities arise for new market entry. Secondly, a business model for longhaul low cost airline operations; and thirdly, markets where the carrier-within-a-carrier strategy could be deployed in which a low cost subsidiary operation complements a full service parent owner operation.

1.4 Methodology

The research belongs in the descriptive and evaluative type of research and is based on *case study* research methodology. As a research strategy, case studies has gained legitimacy and acceptance and is considered particularly useful when the problem being investigated covers a lengthy time period and involves an issue that is not well defined (Alkin 1992). According to Cavaye (1996), case studies can be as rigorous as mainstream research, providing attention is given to the logic and practice of case study research. Eisenhardt (1989) referred to case study research as “a phenomenon in the making” to gain novel and rich insights where the research is of a strategic, evaluative nature. This description was imminently

suitable for the type of research investigated. Eisenhardt (1989) adds that case study research has legitimacy where there are situations where there are few theoretical foundations and exact measures for the key variables.

The strength of the case study approach is that it enables one to capture reality in considerable detail; more than is possible with surveys, experiments or field studies. According to Yin (1994:1) the adoption of a strategy best suited for a specific research project depends on three conditions:

1. the type of research questions asked,
2. the control that the investigation has over actual behavioural events, and
3. the focus on contemporary as opposed to historical phenomena.

Drawing heavily on the contributions of authors such as Strauss and Corbin (1998) and Yin (1994), Eisenhardt (1989) provides a framework for inducing theory from case study material. The case studies she describes typically combine data from a number of parallel sources – archives, interviews, questionnaires, etc. In general, *case studies* are thorough examinations of specific social settings or particular aspects of social settings (Feagin, Orum, and Sjoberg 1991; Stake 1995). They constitute in-depth investigations and a well organized picture of that unit and can examine a small number of units (sometimes even one) across a large number of variables (Cavaye 1996; Perry 1998). The case study approach, as defined by Eisenhardt (1989) represents a strategy which focuses on the dynamics present within particular situations, using discourse material as one element of its data. Increasingly case study research has become popularized especially with investigations into tourism and transport related problems in a social setting. For example, Whyte and Prideaux (2008) undertook research into the impact of low cost airlines on Queensland destinations using case study methodology. Prideaux's (2006) doctorate thesis investigated transport accessibility on tourist destinations. Thus, for this research the compilation of case studies has been based on in-depth interviews with a limited number of knowledgeable informants, and use of reliable and creditable secondary sources for data. Confirmation of the main findings and cost model constructed has been validated by two separate creditable aviation sources.

Most existing research into the airline industry has been conducted in the positivism paradigm where deduction has been the common standard for evaluation. Given the research problem as outlined in Chapter 1, the best fit was to follow the phenomenological paradigm and conducted by recognizing the following parameters identified by Hussey and Hussey (1997:54).

- It tends to produce qualitative data: it takes an expansionist stance.
- Ideas are developed through induction: it looks at the totality of each situation.
- It focuses on meanings and tries to understand what is happening.
- It uses multiple methods to establish different views of the phenomena.

This research has developed two case studies that exemplify how two very different major low cost airlines operating in different markets have applied the strategic windows concept. The Findings chapter considers Australia's international aviation policy in the context of the open skies agreement concluded with the EU and contains excerpts from respondents interviewed. The final part of the chapter examines airline operating cost and determines whether a cost advantage is attainable for a low cost longhaul entrant into the Australia-EU market compared to full service airlines and the transferable/non transferable elements from the short-haul low cost airline model to longhaul airline operations.

Data

One of the difficulties for private airline researchers examining the airline industry is obtaining accurate and reliable cost data. Airlines are disinclined to discuss costs in detail other than in generalized terms and will only reveal such in percentages of direct operating costs. However, the data collection problem was overcome by turning to reputable airline organizations and bodies. On a 'global basis' and based on aggregate costs, the International Civil Aviation Authority (ICAO) and the International Airline Transport Association (IATA) data bases proved useful for direct and indirect airline costs, for example fuel, airport charges, labour including ground handling, marketing including distribution and selling costs. However, the data does not disaggregate operations for short, medium and longhaul when the requirement is to examine longhaul only. To overcome this problem data was obtained from the UK Department of Transport

relating to Virgin Atlantic costs, a longhaul airline. Other organisations and bodies sourced include the Boeing Airplane Company, the Association of European Airlines and the Orient Airlines Association. Secondly, data and data verification relating to cost inputs was verified by a V-Australia senior manager and also submitted to the Centre for Asia Pacific Aviation Studies for comment and verification. The data sources used for this research include the following:

- Airline Annual Reports
- Association of European Airlines (AEA)
- Boeing Airplane Company (Boeing)
- Bureau of Transport and Regional Economics (BTRE)
- Centre for Asia-Pacific Aviation Studies (CAPA)
- Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG)
- International Air Transport Association (IATA)
- International Civil Aviation Organisation (ICAO)
- Orient Airlines Association (OAA)
- The UK Department of Transport - Civil Aviation Division

Other reliable and credible secondary sources include publications such as "Australian Aviation", a well respected and leading publication on industry affairs, "Air Transport World", "Airports" and "The Australian" newspaper which publishes a weekly aviation feature which has access to senior airline executives.

Figure 1.3 illustrates the research path that was followed in this thesis.

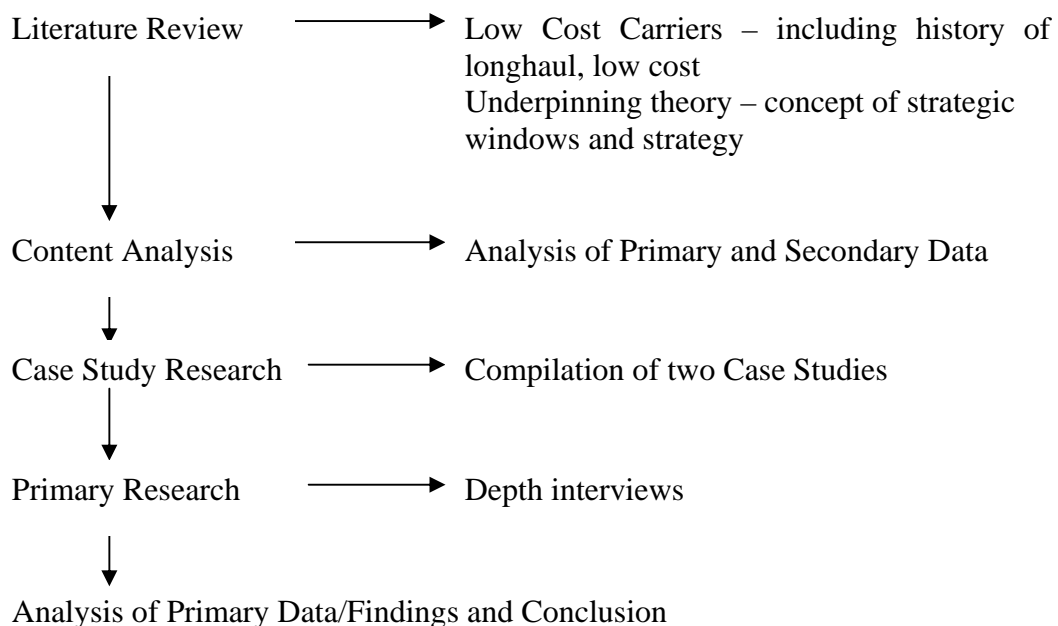


Figure 1.3 Research path adopted for study

Interviews

Interviews with only a small number of key respondents were chosen to elicit expert knowledge and to add, verify, modify and confirm statements made by the researcher. Some preliminary interviews were conducted with some respondents to further the researcher's understanding of the research problem, gain further insights and to shape the direction of the research and frame the research questions.

Interviews were conducted using face-to-face question and answer responses including note-taking; telephone discussion/questions, and email communication. The organizations selected and interviewed include Air Asia, Jetstar, V-Australia, the Centre for Asia-Pacific Aviation Studies, the Aviation and Airports Branch of the Department of Infrastructure, Transport, Regional Development and Local Government (Australia), the International Air Services Commission (Australia), Mr. S. Creedy, specialist Aviation writer, *The Australian*, Mr. T. Ballantyne, Chief Aviation Correspondent for *Orient Aviation*, Mr. L. Fordham, Managing Director, *Airbiz*, Mr. Koen Roojimans, former CEO Brisbane Airport Corporation and a former senior executive with KLM Dutch Airlines and Mr Dick Smith, a former head of the Civil Aviation Safety Bureau. Several respondents were interviewed on more than one occasion and over a two year period. Each respondent agreed to be interviewed and listed (see chapter 3) although government officers were more guarded and less open especially when questioned by the researcher concerning access into Australia granted to Gulf State airlines.

Questionnaire Design

Consideration was given to three types of questionnaire – a structured questionnaire, a semi-structured questionnaire and an unstructured questionnaire. A decision was made to apply a semi-structured questionnaire to elicit responses to set questions. This also allowed some flexibility in shaping questions specifically for airlines and specifically for aviation policy-makers and bureaucrats. This method also allowed for further questioning to probe a particular issue and gain further insights. Given developments as the thesis was being written, some interviewees were contacted on two and three occasions for comments. For this particular research a semi-structured questionnaire has several advantages compared to a structured questionnaire that might have been

too restrictive and only given limited responses to questions. An unstructured questionnaire was regarded as not suitable that might alter or miss important questions, lack rigor and move the thread of the issues under discussion away from the important issues being investigated.

Full Names of Airlines and Abbreviations used

The following list of airlines is shown throughout the thesis. Table 1.3 shows the short or abbreviated name used.

Table 1.3 Airlines shown in the thesis

Full Name of Airline	Short Name used in thesis
Air Asia Berhad Sdn and Air Asia X	Air Asia Air Asia X
Cathay Pacific Airways	Cathay Pacific
Easyjet Airline Company Limited	Easyjet
Lufthansa German Airlines	Lufthansa; Lufthansa Group
Oasis Airlines Hong Kong Limited	Oasis Airlines
Jetstar Airways Limited	Jetstar
Malaysian Airline System Berhad Sdn	Malaysian
Qantas Airways Limited	Qantas; Qantas Group
Ryanair Limited	Ryanair
Singapore Airlines Limited	SIA
Southwest Airlines Limited	Southwest

1.5 Limitations

Airline research opens a wide field of potential research issues that span strategy, marketing, operations, finance and human resources as well as government policies including regulation, economics, management, geography, culture and religion. The limitations of this study confine it to one of examining the application of the strategic windows concept applied to two substantial sized LCCs in the Asia-Pacific region (Air Asia and Jetstar) and determining whether a low cost long-haul airline can achieve a cost advantage compared to full service airlines operating between Australia and Europe. Although comparisons are drawn between full service airlines with references made to alliance partners, code-sharing and key hub points, the study is not about full service, network airlines or strategic alliance partners. Similarly, the study is not about marketing

strategy deployed by low cost airlines except for the two airlines that are the subject of a case study.

Although cost data has been obtained from secondary sources that are considered reliable, it has not come directly from airlines. Airlines in general are reluctant to discuss cost information and information which is regarded as commercial in confidence. In using cost data, the airline industry benchmark of cost expressed as a unit cost (cents) per flown passenger seat kilometer (CASK) has been used which is valid and used for comparative purposes between airlines.

Whilst several researchers have examined low cost airline-airport relationships (Francis *et al.* 2004; Humphreys *et. al* 2006; Warnock-Smith and Potter 2005; Weatherill 2006) that spans airport choices, incentives, facilities required and the “hard-headed” negotiations adopted by LCCs, the relevance of airport choice in the model developed for a longhaul low cost carrier in this research has attempted to be objective in determining that major airports offer advantages both operationally and in terms of marketing benefits. The relationship is therefore not part of this research suffice to say that each airline will approach its negotiations with airport companies on a range of issues from slot availability, the use of air bridges, and separate facilities that are not “gold-plated” (see Warnock-Smith and Potter 2005).

The research does not undertake any consumer research into consumer preferences regarding longhaul airline service such as seating, seat pitch, on-board amenities, baggage allowance, and other added value services associated with “budget airlines”. Further research is required to test consumer attitudes towards the notion of longhaul, lowcost.

1.6 Organization

This thesis is structured into six Chapters. This chapter, chapter 1 backgrounds the topic which is whether the theories of strategic window opportunities created by the Australia-EU new “open skies “ air agreement would enable new route entry by a longhaul low-cost carrier into this market. The chapter has introduced the theories of strategic windows which are discussed more fully in chapter 2. A

purpose of this chapter was to provide some insights into the understanding of the low-cost airline sector and the Australia-EU market, the debate on business models and the importance of airline bilateral agreements in international aviation. The chapter has considered the research problems and sets out the aim of the research with specific research questions, the justification for the study, summarizes the research methods used and sets out the limitations of the study.

Chapter 2, the Literature Review is in three parts. The first part discusses the theoretical framework relating to the theories of the concept of strategic windows from the strategic management literature and strategy generally. Drawing upon the literature, the application of strategic windows in the airline industry is discussed. The second part of chapter 2 more specifically discusses the low-cost airline sector beginning with earlier models to the more contemporary LCC models including the operational and marketing characteristics being applied by LCCs that differentiate them from FSA's. The growing body of literature highlights that there is "no one size fits all" model and the LCC market is not homogenous. A number of variants to the basic low-cost airline model have been proposed by different authors. The final part of the chapter discusses airline bilateral agreements, the freedoms of the air and the move towards open skies, in particular Australia's international aviation policy and the recently concluded open skies agreement with the EU.

Chapter 3 outlines the Research Methods applied to the thesis. The thesis has adopted a case study methodology as a research strategy that has gained legitimacy and acceptance and is considered particularly useful when the problem being investigated spans just over two years and involves an issue that is not well defined methodology. The data collection and compilation of the case studies includes information gained from in-depth interviews using a semi-structured questionnaire with a small number of key respondents and the use of secondary data obtained from reliable and creditable sources. The chapter outlines the selection of a research paradigm, different research approaches including deductive and inductive approaches to theory development, and the research strategy selected and its justification.

Chapter 4 presents two airline case studies that exemplify the application of strategic windows. The first of the two airlines selected is Jetstar, a fully owned subsidiary of Qantas which was created in 2004 and has since emerged from domestic operations to international operations and is now one of three Australian owned airlines. Jetstar has plans to capitalize on the strategic window opening by establishing services to southern Europe. The second case study selected is Air Asia which is Asia's largest low cost airline and more significantly has evolved into longhaul low cost airline through its franchise operation Air Asia X. A common feature of both airlines is that they have only been in existence for less than a decade.

Chapter 5 completes the Findings which have established that recent changes in bilateral air service agreements to one of open skies between Australia and the EU have opened a strategic window for new airlines. This chapter includes comments made by respondents to questions relating to the low cost longhaul market and in particular with a focus on Australia-EU. The second part of this chapter has determined that the low cost airline model does offer considerable cost savings compared to full service airlines operating longhaul as measured in operating cents per flown seat kilometer.

The final chapter, Chapter 6 is the Conclusions and Implications arising from the research that presents its conclusions of this thesis including the development of a framework for a low-cost, long-haul airline model. The chapter answers the research question regarding the strategic window that has been opened by the Australia-EU open skies agreement and the opportunity for market entry by a low-cost carrier.

1.7 Summary

The purpose of this chapter was to introduce the research topic, its relevance and the process undertaken to address the research problems identified in this chapter. Based on Kjelgaard's (2006) proposition as to whether a re-emergence of low-cost longhaul airlines would be "longhaul the second time around" this research examines this problem within the context of the proposed open skies Australia – EU agreement that creates a strategic window opportunity for new entrants.

The aim of the research is to *examine if the strategic window opportunity created by “open skies” enables a low cost carrier to enter and compete in the Australia-Europe market.* The justification for the research has been explained and the usefulness of the research which centres on the strategic windows concept to an airline setting and whether a cost advantage can be attained for a longhaul low cost entrant in the Australia- EU market.

The chapter has provided an introduction to the concept of strategic windows and its application to the low cost airline sector. The emergence and growth of low cost carriers and their presence in many domestic/regional markets anchors the research and underpins the transferable elements from the short haul model to longhaul airline operations despite their different characteristics. This chapter has also introduced the academic debate on different business models being applied within the airline industry which is more fully discussed in chapter 2.

The research methods applied have been broadly set out that shows a case study research methodology was adopted based on Eisenhardt’s (1989) “a phenomenon in the making” and Yin’s (1994) defence of case study research as a legitimate research methodology. In general, case studies are thorough examinations of specific social settings or particular aspects of social settings (Feagin, Orum, and Sjoberg 1991; Stake 1995). They constitute in-depth investigations and a well organized picture of that unit and can examine a small number of units (sometimes even one) across a large number of variables (Cavaye 1996; Perry 1998). The case study approach, as defined by Eisenhardt (1989) represents a strategy which focuses on the dynamics present within particular situations, using discourse material as one element of its data.

The next chapter, chapter 2 is in two parts. The first part more fully explores the concept of strategic windows within the body of strategic management and the second part discusses the rich body of literature surrounding the low cost airline sector.

This chapter has introduced the research undertaken to determine whether a low cost longhaul airline can attain a cost advantage to enter the Australia-EU open

skies market which is served by many airlines. Although the low cost airline industry has grown immensely in the past decade and operates in almost all aviation markets, establishing low cost longhaul services and sustaining the operation has proved challenging. There is an unfortunate litany of failure by independent airlines with under capitalization a main cause of their demise but not solely confined to this issue. It would seem that the carrier-within-a-carrier strategy may hold the best hope of establishing a hybrid product complementary to the full service parent owner given the strengths and resources available from the parent owner. As this thesis is being finalized, Singapore Airlines has announced its intentions to launch its own low cost subsidiary into specific longhaul markets commencing in mid 2012.

Chapter 2

Literature Review

2.0 Introduction

The growth of low cost carriers (LCCs) has attracted considerable academic and scholarly interest because of its significant impact on air transport markets. The combined effects of deregulation, liberalisation and privatisation of the airline industry, global alliances and consolidation that developed in the 1990s and more recently are reshaping the competitive forces affecting the industry (Button 1991; Doganis 2005; Gillen and Morrison 2005; Jarach 2004; Wensveen and Leick 2009). These forces and the financial stress suffered by full service, network airlines have created *strategic windows* for innovative low cost/low fare carriers to enter markets either vacated or ignored by full service airlines.

In its annual global LCC Outlook, the Centre for Asia-Pacific Aviation (CAPA 2009) in drawing together the views of low cost airline CEO's from different regions together with industry experts, found that a surprising level of similarity emerged concerning the evolution of the LCC model including longhaul service, connectivity and convergence with full service carriers. Fuel price surges, global economic downturns coupled with open skies policies being enacted by governments have created strategic window opportunities especially for LCCs who are more adept and flexible than full service, network airlines (FSAs) that have legacy industrial relations agreements.

The discussion in this chapter sets out the general theory of strategy and relates this to the LCC sector. The chapter is presented in two parts. Part 1 is titled "Understanding Strategy" and commences with a discussion on the "strategic windows" concept and moves into a more general discussion of strategy in general highlighted by a "strategic clock model". Part 2 discusses the low-cost airline sector. The first section provides a short history of LCCs and early longhaul LCCs. This moves to the debate in the literature concerning whether LCCs are a phenomenon, a concept, or a business model. Although Wensveen

and Leick (2009) discuss their three different models, they argue that the importance of developing a sound business plan is more critical to success. The main theme developed from the literature is that not all LCCs are homogenous and whilst there are core elements common to most LCCs, differences apply according to a range of factors. The operational structure of LCCs is explained and several variants of LCC models presented concluding in a comparison of facilities required by LCCs and FSAs. The chapter concludes with the identification of research gaps found in the literature.

2.1 Understanding strategy

The term “*strategy*” has become widely used in today’s business environment and the task of planning strategy and executing it has become critical to business success. The dual effects of liberalization and competition – and other external threats have placed a greater emphasis on airline performance, hence the need to “think strategy”, plan and execute the strategy. *Strategy* has different meanings. It has been defined as a plan, an action agenda, an intended course of action, or a means of attaining specific results (Hunger and Wheelen 2003; Johnson and Scholes 1993; Stahl and Grigsby 1997). Strategy is a pattern or apparent behaviour that emerges from a series of actions; a position or match between an organization and a product-market area, such as a product differentiation strategy, for example, the creation of a low-cost “carrier-within-a-carrier” strategy adopted by some airlines as a cost reduction strategy, a segmentation or differentiation strategy, or to take advantage of strategic window opportunities such as liberalization and new market opportunities. Stahl and Grigsby (1997) also described strategy as the perspective of an organization such as whether the company is customer driven or an innovator which could be applied to airline strategy.

A major difference between low cost airlines and full service airlines is in their different competitive and marketing strategies (Doganis 2005; Lawton 2002). LCC’s have intentionally created 'points of difference' in their marketing mix such as the service offering, pricing and stricter cancellation rules and devise a competitive strategy in order to find a ‘market position’.

2.1.1 The Concept of Strategic Windows

The concept of “strategic window opportunities” has become popularised in planning strategic initiatives because it brings together the twin notions of environmental scanning and organisational capabilities which according to Viljoen (2004) are central to strategic management. The term '*strategic window*' is based on the belief that all markets undergo evolutionary change and that this change is predictable to a greater or lesser extent, if an organisation bothers to analyse its external environment carefully enough (Hunger and Wheelan 2003). For example when applied to the commercial aviation industry this may mean liberalisation of aviation markets that allows new route entry; identifying new market opportunities such as new tourism markets; or through product design and innovation such as creating sleeper beds for longhaul passengers willing to pay a price premium for added comfort.

Several authors have identified route entry by LCCs occurs because of lower ticket prices compared to full service airlines, servicing smaller regional airports, taking up routes abandoned by full service airlines, risk-sharing arrangements with municipal authorities and airport owners that underwrite new services, and operating in environments where liberalisation has taken place (Blaha 2003; Forsyth 2003; Francis *et al.* 2004; Humphreys *et al.* 2006; Tretheway 2002; US General Accounting Office 2004; Warnock-Smith and Potter 2005). Liberalisation coupled with a different business model to full service airlines has allowed carriers such as Jetstar and Air Asia to enter existing routes and create new routes. These two airlines are presented as case studies in Chapter 4.

Hunger and Wheelan (2003) and Viljoen (2004) emphasise that organisations possess skills and competencies which may be suited to the direction of change in a market at one point in time but not at another. Therefore, a strategic window occurs during that limited time period when the fit between the key requirements of a changing market and the skills and resources of an organisation are at an optimum. It is at this time that the strategic window is said to be "open" and the organisation should be investing heavily in that market (Hunger and Wheelan 2003; Viljoen 2004).

2.1.2 Strategy

The literature is rich on the subject of “strategy” that spans more than three decades. The term “strategy” by itself is somewhat generalised and what has emerged is three distinct branches of strategy yet they are interrelated. There is strategic analysis, strategic planning and strategic management. For example, Steiner (1979) was one of the earliest writers on the subject of strategic planning, yet Steiner did not set out to define strategy except in the notes at the end of his book. Steiner (1979) observed that there was very little agreement as to the meaning of strategy in the business world, but summarized its activities as:

1. Strategy is that which top management does that is of great importance to the organization.
2. Strategy refers to basic directional decisions, that is, to purposes and missions.
3. Strategy consists of the important actions necessary to realize these directions.
4. Strategy answers the question: What should the organization be doing?
5. Strategy answers the question: What are the ends we seek and how should we achieve them?

The work of Tregoe and Zimmerman (1980) established a specific framework around "strategy" and defined it as "the framework which guides those choices that determine the nature and direction of the organization" creating nine possible "driving forces" of the business although Tregoe and Zimmerman (1980) urge executives to base these decisions on a single "driving force". The nine possible driving forces are:

- Products offered
- Market needs
- Technology
- Production capability
- Method of sale
- Method of distribution
- Natural resources
- Size/Growth
- Return/Profit

Robert (1993) in his *"Strategy Pure and Simple"* argues that the real issues are "strategic management" and "thinking strategically" that pertains to four key factors:

- Products and services
- Customers
- Market segments
- Geographic areas

Like Tregoe and Zimmerman, Robert (1993) claims that decisions about which products and services to offer, the customers to be served, the market segments in which to operate, and the geographic areas of operations should be made on the basis of a single "driving force". The understanding of "strategy" is further expanded upon by Mintzberg (1994) who wrote *'The Rise and Fall of Strategic Planning'* and argues that strategy emerges over time as intentions collide with and accommodate a changing reality. Thus, one might start with a perspective and conclude that it calls for a certain position, which is to be achieved by way of a carefully crafted plan, with the eventual outcome and strategy reflected in a pattern evident in decisions and actions over time. This pattern in decisions and actions defines what Mintzberg (1994) called "realized" or emergent strategy. For example decisions made by airlines on route planning are usually crafted over time but may have emerged as a strategic window opportunity.

Andrews (1996) went further in attempting to define strategy. Andrews (1996) wrote *The Concept of Corporate Strategy* and defined corporate strategy (pp.18-19) as:

" . . . the pattern of decisions in a company that determines and reveals its objectives, purposes, or goals, produces the principal policies and plans for achieving those goals, and defines the range of business the company is to pursue, the kind of economic and human organization it is or intends to be, and the nature of the economic and non-economic contribution it intends to make to its shareholders, employees, customers, and communities."

Andrew's definition obviously anticipates Mintzberg's (1994) attention to pattern, plan and perspective, but draws a distinction between *"corporate strategy"* which determines the businesses in which the company will compete, and *"business strategy"* which defines the basis of competition for a given business. Thus, Andrews (1996) also anticipated "position" as a form of strategy.

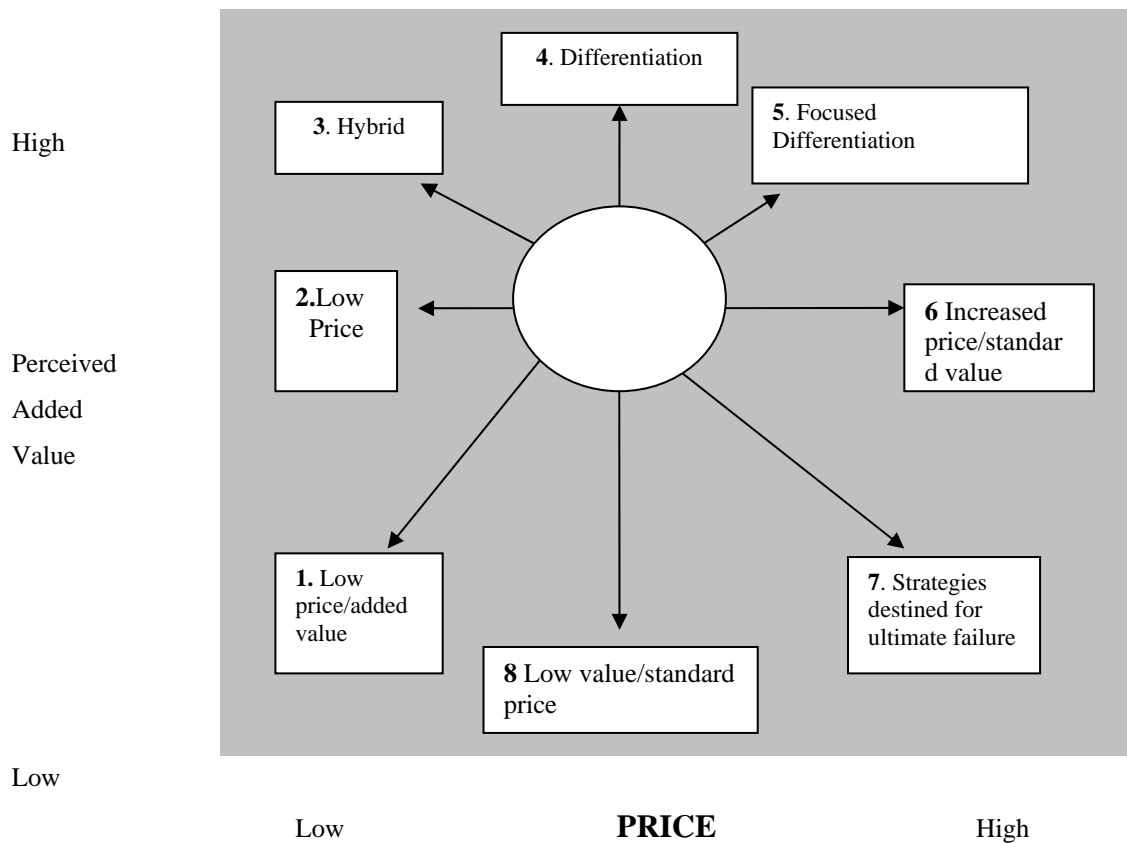
Hunger and Wheelan (2003) have observed how strategic management has evolved from strategic planning. The increasing risks of error, costly mistakes and even economic ruin are causing today's professional managers to take strategic management seriously to keep their companies competitive in an increasingly volatile environment. McKiernan (2006) has posited that there are four well-established frameworks to strategic management:

1. The planned approach
2. Logical incrementalism
3. Outside-in analysis
4. Inside-out analysis

The 'planned approach' places emphasis on a long term, highly systematic and deterministic process of strategic planning and aims at achieving the best "fit" between the organization and its environment. However, business environments may change chaotically, and such an overly prescriptive approach based on incomplete information may result in flawed decision making. The 'logical incrementalism' approach proposed by Quinn (1978) cited by Viljoen and Dann (2002) suggested that the organization's strategies should evolve rationally in response to changes in the environment. For example 'logical incrementalism' has a linkage to strategic windows as new openings for airline entry arise, for instance open skies in ASEAN in 2015 (ASEAN Press Release 2007).

Whilst strategic analysis, strategic choices and planning and strategic management are all inter-linked as a senior management responsibility, several authors have discussed the importance of value-activity models in the strategic management literature which are linked to the emergent literature on relationship marketing as a business strategy. For example, Treacy and Wiersema (1995) discuss their concept of *value segments*. Bowman and Faulkner (1997) noted the importance of value-activity competitive strategies since buyers see price and not cost. Bowman (1998) emphasises *operational excellence* and Parnell (2006) developed a framework for *market control* value. Value-activity competitive strategy can be seen in the way LCCs enter markets, position themselves – usually based on a lower price, and achieve operational cost savings compared to full service airlines.

Johnson and Scholes (1993) discuss market-based generic strategies and devised their 'strategy clock' (Figure 2.1) based on *perceived added value* in which customers may choose to purchase from one source than another because either (a) the price of the product or service is lower than that of another firm, or (b) the product or service is more highly valued by the customer from one firm than another. In Figure 2.1 routes 1 and 2 are price-based strategies that may seem unattractive because it is focussed on a price-sensitive segment but is typically used by low-cost carriers. For instance, Tretheway (2002) observed that LCCs have had the largest impact on price competition in airline markets over the past 25 years. Route 3 is a hybrid strategy that seeks to provide added value and keep prices down. Route 4 is a value-added, or differentiation strategy that offers perceived added value and may include the uniqueness or improvements to the product, for example lie-flat beds for premium class airline passengers. Route 5 is a focused differentiation strategy that offers higher value to the customer at a significantly higher price competing in a particular market segment, for example business class air travel. Johnson and Scholes (1993) warn that it is important to be clear as to which market segment the firm is competing in, defined in terms of a coherent set of customer values and needs; and this must be translated into action which consistently satisfies those customer values and needs. Failure strategies (routes 6,7, and 8) are, according to Johnson and Scholes (1993) probably destined for failure. Route 6 suggests increasing price without increasing perceived value is not likely sustainable and route 7 is an even more disastrous extension of route 6: the reduction in value of a product or service, while increasing relative price. Route 8 reduces value while maintaining price is, according to Johnson and Scholes (1993) dangerous and could damage a firm's market share. The strategy clock is then, a market-based model of generic strategy options. It incorporates many of the arguments made by Porter (1985) but crucially roots them in the question: what is of value to the user of the product or service? It does not deny that the cost base of an organisation is vitally important, but sees this as a means of developing generic strategies and not as a basis of such strategies.



Price Position

1. Low price/low added value
2. Low price
3. Hybrid
4. Differentiation
 - a. without price premium
 - b. with price premium
5. Focused differentiation
6. Increased price/standard value
7. Increased price/low value
8. Low value/standard price

Needs/risks

- Likely to be segment specific
- Risk of price war and low margins/need to be cost leader
- Low cost base and reinvestment in low price and differentiation
- Perceived added value by user yielding market share benefits
- Perceived added value sufficient to bear price premium
- Perceived added value to a particular segment, warranting price premium
- Higher margins if competitors do not follow/risk of losing market share
- Only feasible in monopoly situation
- Loss of market share

Figure 2.1 The Strategic Clock: Competitive strategy options after Johnson & Scholes (1993)

2.1.3 Summary: Research gaps

This section has discussed a number of different approaches to strategy formulation. *Strategy* has different meanings. It has been defined as a plan, an action agenda, an intended course of action, or a means of attaining specific results (Hunger and Wheelen 2003; Johnson and Scholes 1993; Stahl and Grigsby 1997). Strategy is a pattern or apparent behaviour that emerges from a series of actions; a position or match between an organization and a product-market area, such as a product differentiation strategy. For example, the creation of a low-cost “carrier-within-a-carrier” strategy discussed in this chapter that has been adopted by some airlines as a cost reduction strategy; a segmentation or differentiation strategy; or to take advantage of strategic window opportunities brought about because of liberalization and new market opportunities. The literature is somewhat remiss in its absence of contemporary research into the CWC strategy and how major airlines fit their low cost subsidiary airlines into their overall grand strategy and how strategy is being executed.

Several authors, namely Blaha (2003); Forsyth (2003); Francis *et al.* (2004); Humphreys *et al.* (2006); Tretheway (2002); US General Accounting Office (2004); and Warnock-Smith and Potter (2005) have identified route entry by LCCs occurs because of lower ticket prices compared to full service airlines, servicing smaller regional airports, taking up routes abandoned by full service airlines, risk-sharing arrangements with municipal authorities and airport owners that underwrite new services, and operating in environments where liberalisation has taken place. It raises the question of whether a longhaul LCC can adopt a similar strategy or whether a different model is required to enter longhaul routes.

2.2 The Low-Cost Airline Sector

2.2.1 Introduction

The purpose of this section is to give the reader an understanding of the LCC sector and what differentiates it from full service airlines. Whilst there are many common features of a typical LCC, the sector is not homogenous and differences occur between carriers according to markets and other variables. LCCs have become established in many domestic and regional airline markets where flying

times are typically one to two hours, services are point-to-point, the majority of traffic is generated from the origin or destination area and the entire operation is efficient and cost effective (Bailey 2002; Calder 2002; Lawton 2002; Gillen and Morrison 2005; Francis, Humphreys and Ison 2004). Entry into short haul regional markets (short-haul” is defined as routes of between one and two hours flying time - International Civil Aviation Organisation 2008) and has been possible for four main reasons:

- (i) Ease of access into routes – deregulated markets
- (ii) High aircraft utilization/fast turnarounds
- (iii) Availability of short haul regional jets and favourable lease arrangements
- (iv) Cost control and containment

According to Alamdari and Fagan (2005) the main difference between low cost carriers and traditional airlines falls into three groups: service savings, operational savings and overhead savings but entry into international routes and longhaul operations by low cost airlines is more complex. This is because there are greater regulatory controls, competition is more intense and doubts exist whether the same cost advantage LCCs have in short haul markets compared to full service airlines is attainable when operating longhaul. However, recent trends indicate that LCCs are adapting their business model and proving they can operate medium to longhaul, for example air Asia X and Jetstar which are examined in chapter 4. Tretheway (2002) has observed that the LCC model is a successful, sustainable business model that delivers benefits to passengers (lower fares and greater flexibility); to communities (job generation, tourism and other business stimulation); and for shareholders (profitability, returns, market capitalisation growth). LCCs are characterised by certain, key characteristics that sets them apart from FSAs.

A short history of longhaul low cost carriers

The history of longhaul low cost carriers starts with charter airlines (Doganis 2005) that were predominant in Europe, especially those based in the United Kingdom. Charter airlines offered a different type of service to regular scheduled airlines and appealed to mainly special interest groups such as football supporters or summer sun tourists (Williams 1994; Doganis 2005). Charter airlines generally

operated from secondary airports with an emphasis on low cost and job flexibility. It could be said that charter airlines operated on a more “seat of the pants” approach than today’s contemporary LCC that adheres to a business model. Changing from a charter airline to a scheduled airline is a major transformation. In 1977 British charter operator Laker Airways headed by aviator/entrepreneur Sir Freddie Laker fulfilled one of his ambitions overcoming many regulatory barriers and launched "Skytrain" across the North Atlantic. This was a new and different concept for longhaul travel based on high loads, low fares and low costs (Doganis 2005; Shaw 2007). The features “Skytrain” had in common with today’s low cost business model were:

- Point-to-point operations with no interlining or transfers
- In-flight catering available at extra cost
- High density single class seating

“Skytrain” had no distribution system so the airline took no advance bookings with passengers having to queue at the airport for each flight until this was eventually changed (Morell 2008). Over a period of just under five years, Laker carried more than 4 million passengers until the airline’s rapid collapse caused by a simultaneous set of calamitous factors that included a fierce price war instigated by some formidable competitors, and external factors such as currency exchange rates, the oil shock crisis and Laker’s under capitalisation that became too much for the carrier to overcome (Shaw 2007; Wensveen 2007). Following Laker, a US based carrier, People Express commenced a low cost airline service from Newark, New Jersey across the Atlantic operating from disused terminal space. However, when People Express acquired debt ridden Frontier Airlines that had a very different airline operation and culture it brought about over expansion, over capacity and financial difficulties and collapse in 1987 (Kochneff 2004; Morell 2008).

Longhaul low fare airlines the second time around

There was a prolonged hiatus before low-cost, low fare longhaul airlines re-emerged although no explanation is offered in the literature. The 1980s and 1990s were generally better times for airlines that gained operating efficiencies from wide bodied jumbo jets and regional jets such as the Boeing 737 (Doganis 2006;

Turnbull 1995; Williams 1994). The term “longhaul the second time around” was used by Kjelgaard (2007) to describe the re-birth of low cost longhaul airlines competing in markets against well established national airlines. This includes Canadian-based Zoom Airways although started by two former British tour operators that operated North Atlantic services between Canada and mainly the UK and of interest in this part of the world, Kuala Lumpur based Air Asia and Oasis Airlines Hong Kong. A feature of these airlines was that they were independent with no alliance partners and as Kjelgaard (2007) observed, they were different business models to their forerunners. However, attempts to sustain new start-ups have been relatively short-lived with many of the same problems as earlier models such as under capitalization, over expansion too quickly and lack of airline management. Wensveen and Leick (2009) went further in their analysis of failed low cost longhaul airlines and found that a common error was their business planning. They identified eight key factors that were common trends leading to failure and question if the longhaul low cost model can work. These authors identified the following key factors connected to low cost longhaul failure:

- Unable to obtain sustainable competitive advantage
- Failure to demonstrate revenue growth and profitability
- Wrong leadership
- “Wrong money” meaning it was necessary to look beyond the “dream stage” to day one of commercial operations and to attract money from investors who fully understand the airline industry.
- Undercapitalisation
- Over expansion
- Lack of flexibility
- Wrong business model

Wensveen and Leick (2009) accept there are some limitations surrounding low cost longhaul and many of the cost advantages enjoyed by short-haul LCCs cannot be the same for longhaul operations because there is a different set of operational and marketing issues to consider. In the context of this research, these points are important and are:

- different (long range) aircraft;
- regulatory issues including bilateral air agreements to land in a foreign country;
- competition from well established (mainly) national airlines including strong alliances;
- Marketing – especially distribution and promotion;
- airport choices, and servicing of aircraft in far away destinations.

The lessons learned from previous failures is a research objective and question (Research Objective 5) which is to build an understanding of the reasons for failure experienced by past low-cost longhaul failures to avoid repetition in the future.

2.2.2 Operational structure of LCCs

According to Childs (2000) the operational structure of an LCC or ‘no frills’ airline is not governed by any specific set of formulaic approaches. Each airline has to assess the relative conditions of the market they intend to operate in taking into account a range of market factors such as which routes to enter, aircraft type, seat capacity, and competitive conditions. Donne (2000) noted that there is a need to be adaptive in the short term and highly competitive in the long term. Several researchers (Barrett 2004; Dobruszkes 2006; Francis *et al.* 2007; Mason and Alamdari 2007; O’Connell and Williams 2005; Pate and Beaumont 2006; Warnock-Smith and Potter 2005) studied the LCC sector and noted that not all LCCs are homogenous. They found differences amongst LCCs from those carriers that have ‘unbundled’ the product to its bare basics that charge for add-ons to low cost carriers that offer some “frills” who compete for price-conscious business travellers, for example UK’s Easyjet (Rae 2001; Wensveen 2007) and Australia’s Virgin Blue.

A key success factor of short haul LCCs has been the operation of fleets based on one aircraft type or variations of the same type such as the 700 and 800 series Boeing 737s or Airbus equipment such as the A319 and A320 regional jets and an

all one class (economy) seating configuration. LCCs reduce the seat pitch – that is, the space between seats as measured in inches or centimetres so that two or three extra rows of seats can be obtained as well as minimising galley space. For instance, a 34 inch pitch for economy class is often standard amongst full service airlines but most LCCs have reduced this to 31 inches. Table 2.1 below shows the capacity differences between LCCs and FSAs.

Table 2.1 Capacity differences between FSAs and LCCs

	A319	A320	B737-700	B737-800
Typical capacity	124	150	126	162
Low cost carriers	156	180	137	189

Sources: BITRE (2007); airline web sites; airline annual reports

Many LCCs choose to lease their aircraft fleet, thus they are able to operate with new to near new aircraft, vary their fleet size according to seasonal demand, reduce heavy maintenance costs and carry less inventory and spares (Forsyth 2003; Holloway 2003; Lawton 2002). Outsourcing is a key strategy to lower costs. Lawton (2002) and Doganis (2005) both observed moves toward cooperative alliances in outsourcing of engineering, maintenance, information technology, yield management, catering, and handling that are making airlines "globally based". All aspects of the operations of LCCs are directed towards achieving a cost advantage over competitors based on the benchmark cost indicator of operating cents per passenger seat kilometre, and to maximizing revenues (Blaha 2003; Gillen and Morrison 2005; Francis *et. al* 2006; Mason and Alamdari 2007). Several authors cite cost differentials between short haul LCCs and legacy network carriers as much as 50 to 60% (Hansson et al. 2006; Morell 2008).

To reduce seat cost per kilometre a variety of operating strategies are employed including paying lower wages, casualisation of some parts of the workforce and offering less generous conditions to staff compared to full service airlines. LCCs have also intentionally set about cutting out travel agents by emphasising Internet distribution thus saving commission costs (Ergas and Findlay 2004). Some authors, notably Dobruszkes 2006; Goold 1999; Schnell 2003; Tretheway 2002) argue that it would have been far more difficult for LCCs to enter markets had it

not been for the new technology available. Technology has increased the availability of information and has shifted leverage into consumers' hands, which has resulted in less homogeneous customer segments (Wensveen and Leick (2009). Shifting consumer behaviours have resulted in network carriers steadily losing market share to a variety of more innovative business models.

Jarach (2004,p.24) refers to the 'low-cost phenomenon' by contrasting the operating environment and outcomes between what he termed "LCCs on the attack and national airlines on the defence" and defined LCCs as having a "simplified value proposition to a wider market potential". Alamdari and Fagan (2005) acknowledge LCCs as a concept but then more fully describe the sector as a business model that has evolved and being reworked and adopted since first established by US domestic airline Southwest (Gittell 2001). Alamdari and Fagan (2005) refer to a "set of principles", a "business strategy" and observed that the original low-cost model has been modified over the years and that low cost carriers were tending to follow a product differentiation strategy as opposed to cost leadership on which the original model was based. These authors analysed a number of low-cost carriers and noted the increasing number of *'hybrid'* low-cost models that are achieving low operating costs, offering low fares and returning attractive operating profit margins but concluded there is a case for recommending adherence to the original model to ensure greater profitability.

Button (2001) supports this view noting that the business model is not static and moves according to market and financial conditions. Ergas and Findlay (2004) discuss the simplicity of value-based airlines business models and use multi-product and multi-market theory to explain market entry and competitive behaviour of LCCs. Jarach (2004, p.25) noted that low-cost airline entities act as "flexible, dynamic and innovative players, eroding the advantages of network carriers.

Wensveen and Leick (2009) argue there is no such thing as a low-cost carrier drawing this conclusion from the fact that regardless of their business model or geographic location, essentially all carriers have the same root costs – fuel, labour, maintenance. These authors concede that some airlines have major advantages

over others in terms of these root costs, but cost structures are essentially the same evidenced by the equal number of difficulties that both legacy and LCCs face in the current market environment. However, this view is contrary to most other authors, for instance Barrett (2004), Childs (2000), Ergas and Findlay (2004), Forsyth (2003), Francis et al. (2007), O'Connell and Williams (2005), and Pate and Beaumont (2006) all recognise the LCC sector as a distinctive type of airline applying different strategies to achieve a low cost position along with product differentiation. Dobruszkes (2006) and Francis *et al.* (2006) have observed that the success of LCCs is their adherence to a different business model to "legacy airlines" – so named because most existed prior to deregulation and liberalisation.

Mason and Morrison (2008) observed that the fundamental problem is a lack of a consistent and standardised approach to analysing airline business models. Francis *et al.* (2006) have observed that it is more appropriate to use the plural "models" and developed a typology of low cost carriers under which it is possible to conceptually categorise five broad types of low cost carriers:

1. Southwest copy-cats;
2. Subsidiaries;
3. Cost cutters;
4. Diversified charter carriers;
5. State subsidised competing on price

Francis *et al.* (2006) recognise that there is still variability within each category presented and whilst there are many common characteristics synonymous with LCCs, they are not all same. Childs (2000) described this situation as "adaptive strategies" meaning that each LCC was likely to be idiosyncratic according to a range of factors and that the notion that "one LCC model fits all" is not strictly correct. For example over time, business models change because of changes in the market, airline ownership and objectives. For example, Virgin Australia has evolved from its original conventional low cost airline model to now becoming a full service airline.

Mason and Morrison (2008) adopted a different model for low cost carriers (see Figure 2.5) classifying some as "value-based carriers" and others as "low fare

carriers" with some overlap between the two types. For Mason and Morrison (2008), value-based carriers are airlines competing in markets where demand supports a premium for convenience or product such as New York JFK-based Jet Blue Airways which targets higher yield business travellers by providing differentiated products. Mason and Morrison (2008) also classified London Luton Airport based Easyjet as a value-based carrier because it targets business and middle class leisure passengers by offering premium convenience such as flying to primary airports in many cities.

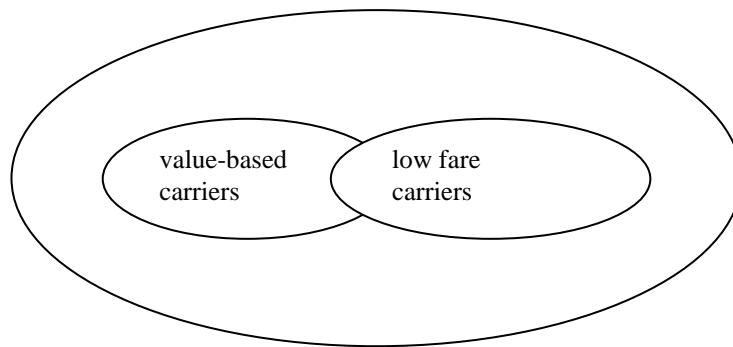


Figure 2.3 Value-based and low fare carriers within the LCC segment after Mason & Morrison (2008)

The performance and business models of ten longer established US and European LCCs was analysed and evaluated by Alamdari and Fagan (2005) against the original model of Southwest Airlines. The analysis concluded that although an increasing number of ‘hybrid’ low-cost models were achieving low operating costs, offering low fares and returning attractive operating profit margins, there is a case for recommending adherence to the original model to ensure greater profitability.

In a variation of Francis *et.al* (2006) concept of five different categories of LCCs, Whyte and Prideaux (2008) developed their model of LCCs along a continuum (Figure 2.4) where at one end there is the ultra low cost airline and at the other end full service airlines who through sophisticated yield management systems can often price a certain percentage of seats at prices near to a low-cost airline.

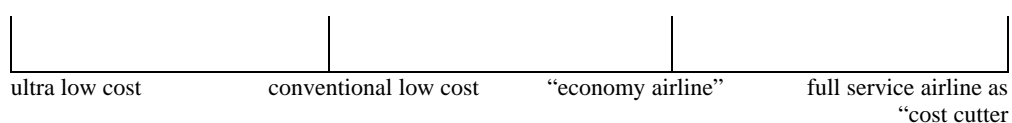


Figure 2.4: Typology of Low Cost Airline Models shown on a continuum. Source: Whyte & Prideaux (2008)

The following explanation is provided to differentiate airlines along the above continuum.

Ultra low cost: Ryanair and Tiger Airways are examples of LCCs that unbundle the product to its bare basics. For example, Ryanair's CEO, Michael O'Leary is obsessed with finding ways to reduce costs and reducing the weight of aircraft he proposed removing on board toilets to avoid carrying potted water. Ryanair also removed overhead lockers. Ultra low cost airlines charge very low fares but ancillary revenue earned from customers paying to check-in at an airport counter, having baggage stowed in the aircraft hold, charging for in-flight entertainment, snack food and drinks is a key component of this business model.

Conventional low cost: Southwest Airlines (USA) typifies this model and was the first airline to pioneer the modern "low cost" business model since the airline's inception now adopted by the majority of low cost start-ups with variations according to country, culture and other market factors.

Economy airline: Whyte and Prideaux (2008) applied this descriptor at the time Virgin Australia was transforming itself from a traditional low cost carrier to what the airline described itself as a "new world airline". Virgin repositioned to offer a suite of product enhancements in order to attract business travelers such as preferred seating, airport lounges and reward programs to recognize frequent flyers. Whilst the airline still had a focus on "cost" clearly it was somewhere between the conventional low cost model and a full service airline.

Full service airline as a "cost cutter": this situation applies where a FSA in order to stay competitive segments its economy class cabin – mainly on regional flights up to 4-5 hour duration, and offers airline consumers choices along different price points according to whether stowed or carry-on baggage is chosen, in-flight entertainment, and meal service. For example, Air New Zealand offers its "Tasman Express" product with options selected by the traveler. In a different part of the world, Scandinavian Airlines reabsorbed its low cost subsidiary airline "Snowflake" back into the parent airline but offers economy class passengers different price points according to what additional extras the traveler selects. Whilst these measures are aimed directly at the airline consumer, FSAs have

introduced greater technology in order to reduce labour costs, for example self check-in at a kiosk.

2.2.3 A new business model in response to competitive environment

From the studies of the LCC sector, several authors have posited the need for a new business model in response to the competitive environment, notably Francis *et al.* 2007; Hansson *et al.* 2003; Mason and Morrison 2008; Morell 2008; Wensveen and Leick 2009. Hansson *et al.* (2003) posit that hub and spoke airlines have over elaborated systems and processes whether the passenger is flying a one hour journey or travelling from one continent to another. These authors assert that the airline industry has unnecessary complexity costs and complex processes that are difficult to automate and change which requires massive retraining of personnel when a process is altered to reduce their cost base. However, a criticism of the analysis by Hansson *et al.* (2003) is that these authors overlooked that longhaul full service airlines offering premium class products whilst accounting for only 8 per cent of passengers, represent 25 per cent of revenues (Creedy, The Australian 25 May 2009, page 3).

More recently academic research has begun to consider what type of business model would suit a longhaul low cost airline operation. Several writers consider that the dynamics driving the airline industry call for new and different business models in the longhaul market (Mason and Morrison 2009; Morell 2008; Wensveen and Leick 2009). Wensveen and Leick (2009) proposed three types of longhaul airline specialists – the network specialist, the product specialist, and the price specialist; however, these classifications seem too narrow and do not reflect that it is possible to overlap into all three of Wensveen and Leick's (2009) "specialists". Air Asia and Jetstar for example differentiate the product from full service airlines; operate extensive networks; and vigorously compete on price.

2.2.4 Carrier-within-a-carrier segmentation

The re-emergence of CWC strategy is more than a passing phase with several Asia-Pacific airlines operating subsidiary airlines designed to complement the parent owner's network. Earlier research scorned the notion of CWC strategy

(Franke 2004; Lindstadt and Fauser 2004) with claims it was difficult to build an integrated business platform, citing cultural differences amongst the workforce and the failures by carriers such as British Airways and KLM Dutch Airlines. According to Graham and Vowles (2006) CWCs appear to have a two pronged strategy. One is a defensive strategy to defend market share that has come under attack from LCCs; the other is a strategy for market development and exploiting strategic window opportunities such as entering new markets, new routes and segmenting markets between leisure type traffic and business/corporate type travel. Drawing on the literature, Johnson and Scholes (1993) suggest that market development and product development may go hand in hand, since the move into a new market segment may require developments of variants to the existing product range. CWC strategy needs closer examination in the field of corporate and business strategy, marketing such as branding, distribution and product/service offering. The case study on Jetstar exemplifies the success of CWC strategy and the application of strategic windows in an airline setting. Research Objective 2 considers whether CWC strategy would be the most appropriate form of market entry to launch a new longhaul low cost airline between Australia and Europe.

2.2.5 Facilities expectations

A distinguishing characteristic between LCCs and FSAs is the differences in facilities each type of airline requires. This includes access, terminal, gate, and other general facilities shown in Table 2.4 below adapted by the author from the work of Pitt and Brown (2001) who compared the facilities requirements between LCCs and FSAs. In later work conducted by Doganis (2005) he found similar cost saving advantages for low cost airlines from a comparison of facilities used by the two different types of airlines which could be a model to assess cost differences.

Table 2.2: Facilities expectations of low cost carriers and full service airlines

Low cost carrier facilities requirement	Full service airline facilities requirement
<i>Access</i>	
Location of secondary importance. Good road and rail links not essential but preferable	Convenient location essential particularly for non-economy passengers
<i>Terminal</i>	
Small ticketing area only. Fast check-in preferred	High profile ticketing desk reflecting corporate image and presence
Control of speed is essential	Check-in convenience and profile is of great importance
Terminal services such as food, shopping of little importance	Important that passengers feel purchasing needs are met
Terminal facilities not important	
<i>Gate</i>	
Low tech gate facilities (air step)	High tech gate facilities (air bridges)
Power in and out of gate eliminating wasting push back time	Airbridge essential to product image wherever possible
Economy lounge facilities only	Business and first class lounges required in addition to economy space (separation of different classes essential to the product)
Ability to separately route incoming and outgoing passengers	Long turnaround times provide ample time to route passengers in appropriate manner
<i>General</i>	
Minimal catering facilities required	Facilities for preparation of in-flight food essential as forms part of package
Cleaning staff required less frequently – cabin crew collect Aircraft cleanliness essential partpackage	
rubbish etc. prior to landing	
No standby aircraft parking during daytime	Standby aircraft require parking
Efficient removal and loading of aircraft baggage (customer containerization).No baggage transfers.	Efficient delivery of arriving baggage including baggage transfer to connecting flights.

Adapted by the author from Pitt and Brown (2001)

2.3 Gaps in the literature

There is little literature on the operation of a longhaul LCC. A plausible explanation for this state is that the model has not proven to be sustainable and forays into the market by longhaul LCCs represent only a small fraction of total international passenger traffic. However, LCCs are always looking for fertile ground and despite the slow speed of liberalisation across the industry, several LCCs have moved into regional markets. The future direction of LCCs was first raised by Francis *et al.* (2006) in positing “where next for low cost airlines” meaning LCCs moving towards more hybrid models through a range of strategies according to the different markets, the competitive situation and consumer preferences and attitudes towards flying with budget type airlines. However, Francis *et al.* (2006) either overlooked or were dismissive of regulatory issues such as bilateral air agreements as when it comes to operating internationally, airlines are not free to choose where they wish to fly to. Strategic window opportunities in the longhaul market can only arise if governments continue to liberalise aviation markets and create an environment of open skies. This is an overlooked area in the airline academic literature. More work could be done in this area to review the aviation policies of governments and to identify those governments that are shielding their national airline with protectionist policies.

The other obstacle inhibiting LCC expansion into longhaul international markets is the intensity of competition from well established network carriers that have route patterns, hub points and sophisticated distribution systems. Some established airlines operating longhaul have segmented their economy class cabin by adding a “premium economy class” product pitched somewhere between business class and standard economy with the lowest possible air fare being offered to the standard economy class product. It could be concluded that the strategic window is less “open” because entry into such markets by smaller, independent airlines is more difficult as the barriers to entry are more formidable such as having no alliance partners or code-share arrangements, and a more “shoestring” type of operation.

When it comes to cost differentials between full service airlines and low cost airlines, researchers examining the LCC sector generally agree that the same cost advantage enjoyed by LCCs on short haul flights cannot be attained on longhaul flights; however, the research to date lacks specificity and there is an absence of a cost model which clearly establishes what differential could be achieved between the two different types of airline operation. Essentially, this is what this research sets out to determine.

The carrier-within-a-carrier strategy is a topic that requires updating in the literature. Contemporary research is lacking particularly as CWC strategy has gained greater momentum and credence especially in Asia and Australia. There is an absence of contemporary research and we have been left with “old” research that had its focus on the reasons for failure. Thus there is a gap in the contemporary literature concerning the carrier-within-a-carrier strategy. Furthermore, the abundance of literature on the LCC /CWC sector emanates from mainly a European and North American perspective. Given the establishment of CWCs in Asia and Australia more work needs to be done to update the contemporary literature including the issue of low cost longhaul.

2.4. Bilateral Agreements, Open Skies and Australia’s International Aviation Policy

2.4.1 Introduction

The international aviation industry has remained one of the most regulated and restrictive industries in international trade. Unlike the free movement of trade between nations, commercial aviation between sovereign states is rigidly controlled despite domestic and regional deregulation in many countries. It is not a stage in which its actors (airlines) are free to choose where and when they wish to fly to. Several researchers, notably Button (2002), Doganis (2005), Morrison and Winston (1995) and Vasigh, Tacker and Fleming (2008) have observed that deregulation and liberalisation have been progressing at an uneven pace across countries and liberalisation of international markets has yet to overcome numerous obstacles. Airline access has attracted considerable academic attention that spans regulation/deregulation policies, for instance Kahn (1990) who was regarded as “the father” of airline deregulation; Button (1991); Sochor (1991);

Sinha (2001), Singh (2002); economics and trade (O'Connor 1995; Dobson 1995), and open skies and competition policy in the Association of South-East Nations (ASEAN) (Forsyth *et al.* 2006). According to Button (2002) much of the debate over international liberalization has been conducted in the abstract, with logical argument being deployed in support of regulatory reform. Button (2002) observed that statistical information has supplemented these theoretical and political arguments with evidence drawn from a range of studies showing the benefits of freer aviation markets but opined that the number of studies of this kind looking strictly at international air transport have been relatively small in number.

Goh (2004) in writing about the Single Aviation Market Australia-New Zealand (SAMANZ) found it difficult to grasp why airline access is strictly controlled and asks why aviation should be treated differently to other trade. Vasigh *et al.* (2008) in part answer this issue by stating airline transport economics is different to other tradeable commodities and set out to explain why. For one, politicians have always liked to intervene in aviation politics sometimes for social and economic reasons (Sochor 1991) but sometimes it seems just plain “muddle headedness”.

Despite a move in the past decade towards “open skies” mainly initiated by the USA, the cornerstone of international aviation remains vested in bilateral air agreements that have their origins from the *Chicago Convention 1944* that still governs much of aviation. More commonly, bilateral agreements are referred to as “Air Services Agreements” (ASAs) that continue to govern much of world trade in aviation that define the terms under which airlines will link their two home territories (Vasigh *et al.* 2008). ASA's underpin all international commercial traffic (passengers and air cargo) between sovereign states that governs the rights of an airline of one state to land in the state of another country including flying over the territory of another state without landing or landing for a technical (refuelling) stop without setting down or picking up passengers (ICAO 2008). An important element to international aviation is the “freedoms of the air” that arose from the early days of civil aviation which are discussed further on.

ASA's are deemed restrictive as they are usually confined to only the national airlines between two states although increasingly there is a trend toward pluralism

and third country access (Forsyth 2007). Critics of the international aviation system argue for the so-called “level playing field” in which all airlines are treated equally (Berry 1992; Bittlingmayer 1990; Clougherty 2006; Levine 1987; Morrison and Winston 1995; Oum, Park and Zhang 2000; Warren and Findlay 1998; Zhang 1996) however, this expectation is unrealistic given that much of international aviation is still supported by government protectionism of subsidised national airlines and where different financial regulations prevail as well as labour market conditions. There are two key arguments identified in the literature concerning whether the airline industry should be treated differently to other industries. The first issue is that the complexity of the airline industry distinguishes it from other sectors (Dobson 1995). For instance routes and market access are controlled by bilateral agreements; some airline routes provide an element of social service to remote regions; much of the business operates across international borders; and airlines must operate within international agreements concerning safety, emissions and noise (Williams 1994; Dobson 1995; O’Connor 1995; Sinha 2001; DOT-UK 2002; Button 2002; Wensveen 2007). The second argument concerns the so-called “level playing field”. This covers a myriad of issues such as government subsidies and assistance including hidden subsidies such as tax on aviation fuel; reductions in payroll tax and establishment of maintenance facilities; and different depreciation and write off periods for capital equipment (Sinha 2001; Button 2002; DOT-UK 2002). Other issues concern the dependence on government to provide aviation facilities; the alleged failure of the industry to meet its full external costs; and restrictions on foreign ownership (DOT-UK 2002). Furthermore, when it comes to airline traffic rights the literature is remiss in disregarding geographic location that plays an important part in giving some countries an inherent advantage compared to other countries. For example, Australia’s position at the “end the line” means it has limited bargaining powers – apart from Australia to the USA, in granting onward through traffic rights to third country airlines (Department of Infrastructure, Transport, Regional Development and Local Government White Paper 2009).

In December 2010 the Australian Government released its “white paper” on aviation which set out a comprehensive and balanced framework, bringing together all aspects of aviation policy into a single, coherent and forward looking

statement — a flight path to the future to continue aviation’s crucial role in connecting Australians to each other and to the rest of the world. Australia’s international aviation policy has evolved over a period of 50 years and as at December 2010 has 57 bilateral air agreements with other sovereign states. The Department of Infrastructure, Transport, Regional Development and Local Government through its Aviation Branch determines policy settings but the “arms length” International Air Services Commission (IASC) which carries out the policy in approving (or rejecting) applications from airlines for capacity and grants traffic rights. The Australia-EU open skies agreement is an integral part of Australia’s international aviation policy. The agreement with the EU was formally signed in Brussels in April 2008 that has replaced former bilateral agreements with individual member states (Aviation Branch, Department of Infrastructure, Transport, Regional Development and Local Government 2010). The policy change is to remove former impediments and encourage new entrants from both Australian and European airlines; however, to date it is questionable whether open skies will achieve the objectives desired. One of the problems is that whilst fifth freedom Asian and Gulf State airlines are technically excluded because they are not Australian or European predominantly owned airlines or have their principal place of business in Australia or the EU. The Australian government has encouraged these airlines because of increasing trade and tourism and Gulf State airlines serve markets not served by Qantas or other airlines (DITRDLG White Paper on Aviation 2008). Furthermore, Australia’s international aviation policy is to grant capacity increases ahead of demand and Departmental policy views that competition is healthy in the market to stimulate competitive pricing for airline consumers.

2.4.2 The Chicago Convention and Freedoms of the Air

The development of international aviation, notwithstanding the intervening war years (1939-1945), called for some refinements to the Paris Convention. *The Chicago Convention* on international civil aviation was signed by 52 nations on 7 December 1944 while pending ratification by 26 states (Doganis 2005; Holloway 2003; Morrison and Winston 1995). This led to the creation of the International Civil Aviation Organisation (ICAO) which came into being on 4 April 1947 and in October the same year became a specialised agency of the United Nations

linked to the Economic and Social Council (ESOSOC). Some of the main outcomes of the Chicago Convention involved standardising different types of scheduled operations categorised according to the various “freedoms of the air” (ICAO 2008). Consciously or unconsciously, the freedoms of the air have had a major bearing on strategic window opportunities for international airlines. The “freedoms of the air” are set out as follows:

- 1st freedom - the right to fly over state B without commercial or technical stops.

(for example, Australia to Singapore flying over Indonesian air space)

- 2nd freedom - the right to land in state B for technical purposes, e.g. refuelling.
(for example, Turkish Airlines operates from Istanbul to New York with a technical – refuelling stop, at Shannon, Ireland but cannot set down or uplift passengers at Shannon. The route also flies over other states as in the 1st freedom.)
- 3rd freedom - the right to set down traffic from state A in state B.
(for example, an Australian carrier sets down Australian origin passengers in Singapore)
- 4th freedom - the right to pick up traffic in state B destined for state A.
(for example, an Australian airline picks up Singaporean origin traffic destined for Australia)
- 5th freedom - the right to pick up traffic in state B destined for state C or put down traffic in state B originating in state C.
(for example, a Singapore carrier picks up Australian originating traffic destined for Europe and vice versa)

In addition, technically there are 6th, 7th and 8th “freedoms of the air” and although not formally defined, these are commonly understood as follows:

- 6th freedom - a service taking passengers between states B and C which flies via state A.
- 7th freedom - a service between state B and state C operated by airline of state A (also called a “free-standing fifth freedom”).

- 8th freedom - cabotage, picking up and setting down traffic within the borders of state B by an aircraft registered in state A.

Third and 4th freedoms are always granted together. Sixth freedoms are effectively two 3rd/4th freedom services linked together, each of which are operated under the relevant bilateral agreement. These are not rights "granted" under an ASA but they are controlled under the tariff and "primary justification" provisions of an ASA. However, unlike most areas of the economy, international aviation starts from the standpoint that a bilateral agreement between countries must be agreed and becomes more complex when airlines seek to operate on to a third country that is not a party to the treaty (Dobson 1995).

2.4.3 Air Service Agreements

Bilateral arrangements allow each country to negotiate on an equal basis in law with any other country, meet the needs of national interests and enter into and leave that arrangement freely and define the conditions under which the airlines of either party will have access to the airspace of the other party (Sochor 1991; OECD 1996; Holloway 2003). These conditions typically specify capacity, frequency, pricing approval process, the way the airline can establish and conduct its business in a foreign country and safety and security arrangements. They are usually in the form of air services agreements (ASA) - which are formal treaties between countries - accompanying Memoranda of Understanding (MoU) and exchanges of formal diplomatic notes. It is not essential to have an ASA in place for international services to operate, but the cases where services exist and there is no treaty are rare (Department of Infrastructure, Transport, Regional Development and Local Government 2009).

The restrictive nature of bilateral agreements brought about a change by the airline industry in the early 1990s with the formation of strategic alliances when airlines of different nationalities came together to cooperate with each other and primarily to feed passenger traffic to alliance partners. Strictly speaking this new form of alliance brought a new and different level to former 'pool partner' agreements between airlines. The literature has widely debated airline strategic alliances and their advantages and disadvantages. Franke (2004) in discussing

competition between network carriers in a changing environment of mergers and consolidation questioned whether alliances were a retreat by airlines or a breakthrough to a new level of efficiency. Porter (1996) whilst not specifically referring to the airline industry was highly critical of alliances claiming they stifled competition and were a poor substitute for innovation, arguing that weaker partners benefited from their association with stronger partners. In some respects alliances and code-share agreements have allowed airlines to purport they have a larger network to many destinations not directly served with their own aircraft.

2.4.4 Open Skies

Liberalisation of air transport policies is a topic frequently addressed both in the academic and inter-governmental literature yet according to the World Trade Organisation (WTO) empirical work in this field lacks even the most basic information, such as the proportion of traffic covered by open skies agreements, or more generally, any universal and consistent set of data on the degrees of openness of aviation policies (Carzaniga and Latrille 2010). The literature tends to be almost exclusively centred on internal US and EU deregulation, US bilateral relations and transatlantic questions.

The concept of open skies was first discussed at the *Chicago Convention 1944* but found little support. At this particular time in history, most national airlines were owned by their government unlike the US which had established private ownership of airlines although with many hidden subsidies and a Civil Aviation Bureaucracy protective of route allocations (Doganis 2005). The US felt that a move to “open skies” would bring many benefits to airlines, remove many regulatory barriers and impediments, increase competition and stimulate tourism and economic growth and trade (Dobson 1995; Kahn 1990; O’Connor 1995; Sinha 2001; Williams 1994). A driving force was the US seeking to expand the number of US cities and airports with direct flights to Europe in the belief it would enhance traffic for US carriers; however, the EU was in no rush to conclude an open skies agreement because of fears that stronger and more powerful US carriers would weaken some European airlines. The US also sought “beyond rights” meaning that they could operate beyond the EU to a third country. It was not until 30 March 2008 that a USA-EU open skies agreement

took effect (Cento 2008). Other benefits and synergies embraced safety, security, and environmental issues.

Europe implemented an open skies policy within the EU over three stages of reforms between 1987 and 1997 adopting a policy of gradualism because of disagreement amongst its 37 members (Dobruszkes 2006; Franke 2004; Goold 1999; Stasinopoulos 1998). The final stage was arguably the catalyst and strategic window for LCCs to enter new routes although there were other reasons such as aircraft availability, the identification of under utilized secondary airports and new business models (Dobruszkes 2006; Doganis 2005; Mason and Morrison 2008). IATA, in its 2008 global outlook, opined that “open skies” has only been embraced by some countries and trading blocs and its full implementation in international aviation has met with only limited success as many governments still seek to protect its national airline from unfettered competition (IATA 2008). The “open skies” policy advocated by the US contained a number of significant changes to former bilateral agreements and removed many previous restrictions. “Open skies” as defined by the US Department of Transport is shown in Table 2.3 below.

Table 2.3 Key characteristics of Open Skies

<ul style="list-style-type: none">▪ open entry on all routes▪ Unrestricted capacity and frequency on all routes▪ Unrestricted route traffic rights including no restrictions as to international and beyond points▪ Pricing flexibility▪ Liberal charter arrangements▪ Liberal cargo regime▪ Ability to convert earnings and remit in hard currency promptly and without restriction▪ Open code-sharing opportunities▪ Self-handling provisions (the right of the carrier to perform and control its airport functions in support of its operations)▪ Pro-competitive provisions on commercial opportunities, user charges, fair competition and inter-modal rights▪ Explicit commitment to non-discriminatory operation of and access to computer reservations systems

Source: US Department of Transport: “Towards Open Skies” – a Policy Paper, 1992

2.4.5 The Case against “Open Skies”

Open skies policies raises the question of whether unfettered access into an aviation market would weaken smaller airlines and that major airlines would adopt predatory conduct to acquire a greater market share and drive out smaller airlines unable to sustain the assault of larger airlines. One of the problems is that open skies could encourage airlines to merely “cherry-pick” airline routes (city pairs) that were the most attractive and to ignore routes where demand was less. Forsyth *et al.* (2004) examined competition versus predation in different aviation markets and cited examples where larger airlines had entered a market (or route) and used pricing to try and drive out a smaller competitor. The Trans Atlantic market where open skies prevail between the USA and EU has also attracted the attention of academic researchers (Dobson 1995; Gillen and Morrison 2005; Vasigh *et al.* 2008; Williams 1994). In many respects many EU countries were sceptical about open skies perhaps fearful of more powerful US carriers entering their market. Cento (2009) found that airline markets are distorted because of government protectionism and government bailouts such as loans and subsidies, differences in labour markets, different taxation levels and different accounting standards such as depreciation allowances for write-downs of assets – in particular aircraft. Qantas claims more than two-thirds of its competitors receive directly or indirectly, government assistance (Qantas 2011). “Uneven competition” in the airline industry has been discussed in the literature, for instance Gillen and Morrison (2005) discuss aviation regulation, competition, and network evolution; Forsyth *et al.* (2006) considers the outlook for open skies in ASEAN as it moves towards more open markets; Pitelis and Schnell (2002) studied the EU’s civil aviation markets and found barriers to mobility arising from the control of slots at major airports.

Unlike many other industries, open skies has not necessarily meant removing ownership restrictions. For instance the US “Fly America” policy restricts foreign ownership to a maximum of 19.99 per cent. The EU has a similar policy in that the principal place of business and domicile must be within the EU and a majority of shares held by EU shareholders. In Australia, the Qantas Sale Act 1992 limits foreign ownership to 49.9 per cent and the Qantas Head Office must be retained in Australia (Qantas Sale Act 1992). The reasons for these restrictions are never

made clear but a plausible explanation is in times of wars or emergencies when governments can give a directive to their national carrier (even when they don't own them) to perform certain functions, for example, Qantas has conducted several missions on behalf of the Australian government.

2.4.6 Australia's international aviation policy

Historically, during the 1960s and through to the 1980s much of Australia's international aviation policy thinking was influenced by what was in the best interests for its then government-owned national airline, Qantas (Hubbard 1994). This was an era when most governments owned their airlines and civil aviation policymakers were directed to establish air services with other member states to "wave the flag" meaning that there was no imperative to necessarily operate services on a fully commercial basis. However, by the end of the 1980s Qantas found that many of its round-the-world services and some European capitals it served were unprofitable. The privatization of Qantas in 1994 (*Qantas Sale Act 1994*) saw the airline enter into an alliance agreement with British Airways (then a 20% shareholder) and concentrate its European services on London Heathrow and Frankfurt, Germany.

In 1998 Australia's Productivity Commission conducted an inquiry into international air services. The overarching thrust of the inquiry was what was in Australia's national interest. The final report found that:

"Australia's well-being depends on domestic and international factors, especially the competitiveness and flexibility of the Australian economy, and the strength of international markets and their openness to our exports and investment. Australian interests therefore require action on all these fronts." (White Paper, *In the National Interest*, August 1997)

In its submission to the Productivity Commission, the Department of Foreign Affairs and Trade stated the following:

"The increasing importance of air services to Australia's exporters . . . suggests that our national interests are most adequately addressed by ensuring Australians have ready access to fully competitive international air services. There is growing recognition that the longer term interests of consumers, business and the aviation industry itself would be best served by moving positively to liberalise our aviation markets further."

Source: Department of Foreign Affairs and Trade, Submission to the Productivity Commission Inquiry into International Air Services, Canberra, 13 August 1998.

The move towards “open skies”

In 1998 the Aviation Branch of the Department of Transport stated “a policy of unilateral open skies for Australia would be inappropriate as adjustment costs for Australian service providers, associated industries and their employees are likely to be severe and we share the Commission’s assessment that such a policy could be far from welfare enhancing” (DITRDLG 1998). The Aviation Branch went further in stating “Australia’s approach to seeking bilateral open skies agreements should be aimed at securing particular strategic aims benefiting Australian businesses and consumers”. Primarily, this position was to ensure that Australia was not disadvantaged by the bilateral partners’ own arrangements with third countries. If necessary, agreements would need to be negotiated with the third countries that would eliminate any risks before finalising agreements with the open skies partner. However, this statement is confusing with the Department’s view that more open and liberal bilateral Air Service Agreements (ASA) would be a step in the right direction and are an integral part of progression toward bilateral - and even plurilateral - "open skies" arrangements. This was seen as a faster and perhaps more efficient way of achieving objectives than multilateral or other pluralistic approaches - for the immediate future, at least. Departmental thinking was that specific ASAs could be targeted in line with the strategic aims of removing market access impediments and/or developing major markets. For example, if Australia achieved the most liberal and beneficial bilateral arrangements possible with EU members, Australia might then be in a good position to negotiate other "bloc" (or plurilateral) agreements in the medium term.

On 21 February, 2006, following a review of international air services policy, the then Minister for Transport and Regional Services, the Hon Warren Truss announced that the Australian Government will continue its policy of seeking liberalisation of international air service arrangements. The minister made the following statement:

"International air transport is a key driver of the Australian economy. It provides access to markets for our exports and is crucial for serving and growing the tourism industry. Given international aviation's importance to Australia and Australians I am pleased that our review found that the base policy settings we have had in place since 1999 are sound. We will continue these directions with some refinement to our negotiating objectives."

The key points of Australia's international aviation policy were reaffirmed in February 2006 which is summarized in Table 2.4 below.

Table 2.4 Key points of Australia's international aviation policy as at 2006

- recognise 'open skies' as an inspirational goal to be sought on a case-by-case basis, where it is in the national interest;
- negotiate capacity for air services ahead of demand, to allow airlines to make decisions and provide for competition and growth;
- maintain and expand access to a range of aviation hubs;
- recognise the contribution an Australian-based airline industry makes to the economy
- encourage major foreign carriers to commit to a long-term presence in Australia;
- address Australia's trade and economic interests;
- continue to attract more services to the regions and smaller states by offering unlimited access for airlines to all airports other than the four gateways of Sydney, Melbourne, Brisbane and Perth;
- grow the air freight market by seeking unlimited access for freight aircraft from Australian markets to and beyond the markets; and
- continue to reform the bilateral air services system by:
 - seeking to designate airlines through their principal place of business, rather than through ownership criteria; and
 - continue to seek liberalisation through multilateral forums such as the International Civil Aviation Organisation (ICAO) and World Trade Organisation (WTO).

However, one year later on 22 March 2007 by the then Deputy Prime Minister and Minister for Transport and Regional Services, the Hon Mark Vaile MP when he announced following the conclusion of air services talks between Australia and the UAE the doubling of the number of services between the United Arab Emirates (UAE) and Sydney, Melbourne, Perth and Brisbane by 2011 (Australian Embassy, UAE, Press Release 22 March 2007). The outcome from these talks resulted in allowing Dubai-based Emirates Air to operate an additional 35 flights each week to Australia by 2011 and gave new Abu Dhabi entrant Etihad Airways the rights to operate an additional 21 flights each week to Australia by 2011. The Deputy Prime Minister and Minister for Transport and Regional Services (Mark Vaile) added "this is a five year strategic approach to growing our air services relationship with the region. It not only provides capacity ahead of demand, but

importantly gives investment certainty for Australian and UAE carriers.” The Minister concluded his policy initiative by stating:

“The Australian Government has negotiated these substantially increased capacity entitlements. It is up to the airports, the tourism industry and the States to market themselves to the airlines”, Mr Vaile said.

Source: Australian Embassy, Abu Dhabi, UAE, Press Release 22 March 2007

2.5 Chapter Summary

Despite deregulation, liberalisation, new airline models and new market segments, the concept of strategic windows in an airline setting has received little attention in the strategic management and airline literature. "Strategic windows" are openings that present themselves due to changes in the operating and external environment, for example in the airline industry factors such as bilateral agreements, 'open skies' policies, new fuel efficient long range aircraft, emerging tourism markets, or trade developments create new windows of opportunity. The theory tells us that all markets undergo evolutionary change and that firms need to constantly monitor changes in the external environment and organize their resources in such a way to exploit new opportunities. Strategic decisions in business are often conducted in a complex environment and influenced by changes in markets, regulation and deregulation, government policy, competitors, economic cycles, financial markets, demographic changes, labour market conditions, and tourism policies by countries/states.

This chapter has introduced the low cost airline sector which has had the largest impact on price competition in airline markets in the past 25 years – much larger than any competition between FSAs. The first part of the chapter relates to understanding strategy from the concept of strategic windows to a more general discussion on what is strategy.

Part 2 discussed the low-cost airline sector. It can be observed that there is “no one size fits all” and that the LCC sector is not homogenous despite the core elements of revenue maximisation through high load factors and cost reduction strategies. The literature highlights that the main differences between full service network airlines and LCCs is the “bare basics” offered by LCCs with the core

product being basically a seat in an aircraft with all other service elements from check-in, to checked baggage and in-flight snack food, refreshments and on-board entertainment as optional extras paid for by the customer. The literature highlights the divergent views held amongst a number of different researchers of what constitutes an LCC model. However, the literature stops short of determining a low cost airline cost model and whether longhaul low cost can establish a cost advantage compared to full service airlines. Whilst there is a general broad agreement amongst researchers on the core principles that govern LCC operations, when it comes to longhaul LCC operations there is a lack of specificity and much of the work done is speculative and from a European perspective. The literature review has found a gap in the CWC strategy which has re-emerged, in particular in the Asia-Pacific region where several major airlines operate subsidiary airlines. Thus, there are important gaps in the literature concerning developments in the Asia-Pacific region.

The final part of the chapter has discussed aviation bilateral agreements, the freedoms of the air and the move to open skies culminating in an overview of Australia's international aviation policy and the recent Australia-EU open skies agreement that creates a strategic window opportunity for the entry of a longhaul, low cost airline.

2.6 Conclusion

A key issue arising from this chapter is developing a business model for a longhaul low cost airline operation and to sustain the model in a very competitive market served by many airlines. Australia's international aviation policy has created the market environment by removing old bilateral agreements held with different EU members and encourages forward capacity ahead of demand. However, there are several issues for would-be new entrants which act as a barrier to entry. First, there is start-up costs including an adequate financial base to cover costs incurred long before the first passenger boards an aircraft; pilot and cabin crew recruitment including training costs; regulatory compliance costs and obtaining an Air Operator's Certificate, marketing expenses such as advertising and promotion, technology set up costs; obtaining slots at busy airports; and not

least meeting aircraft lease costs as well as fuel which is likely to be around 30 per cent of total operating cost.

The next chapter (Chapter 3) addresses the methodology to conduct the research and discusses research paradigms, research approaches, research strategy and the adoption of a chosen research strategy including justification for the methods chosen.

Chapter 3

Methodological Considerations

3.1 INTRODUCTION

The aim of this thesis is to examine the strategic window concept in an airline setting which clearly places the research at the strategic level. The concept of strategic windows describes it as opportunities occurring in the environment because of some change and that a “window opens” perhaps only for a limited time and that firms need to monitor the external environment to be able to capitalize on such openings. In the commercial aviation industry strategic windows can open because of regulatory change such as deregulation and liberalization including “open skies”, competition issues, tourism and trade opportunities, demographic change, for example, a rising middle class in China leading to a demand for travel; or migratory patterns in Europe following the removal of borders, or foreign guest workers – for instance Filipinos working abroad creates a demand for travel from and to the Phillipines. Equally, the theory tells us the window can close; for example, Singapore Airlines’ decision in May 2011 to launch a low cost longhaul airline in 12 months time is signaling to other competitors the carrier’s intentions which could have the effect of deterring other possible new entrants and closing the strategic window.

This chapter commences with a discussion of a number of fundamental issues that need to be addressed prior to commencing research for this thesis. The chapter builds a research framework that addresses a range of issues including:

- deductive verses inductive approach to theory development,
- selection of a suitable research paradigm,
- appropriate research strategies,
- research design,
- case studies as a research method,
- developing effective methods of evaluation, and
- research procedures adopted for this study.

A range of possible research strategies were evaluated and the Case Study method was identified as a suitable methodology for addressing the research questions raised in section 1.2. The justification for using case study research is discussed later on in this chapter. The chapter concludes with an outline of the procedures adopted to establish a cost model and the transferable elements from the well established short haul low cost/low fare airline model for longhaul airline operations.

The decision to either rely on existing theory or develop new theory will indicate the most appropriate research paradigm to be adopted, as well as determining the preferred approach to research. Adoption of a specific paradigm as the basis for research depends on the type of research conducted as well as the aim of the research.

Ontological considerations

From a philosophical viewpoint ontology is the understanding and explanation of nature. According to Bryman (2001, p. 505) it is defined as a theory of the nature of social entities. It refers to the inquiry into the nature of reality and is concerned with our pre-assumptions and images of the nature of social and organizational reality (Park Dahlgard, 2001, p. 32). It can be interpreted from two different angles – objectivism and constructionism. Objectivism stresses that social phenomena and their meaning have an existence that is independent of social actors and implies that social phenomena and the categories that we use in everyday discourse have an existence that is independent or separate from actors (Bryman, 2001, p.17). That means that knowledge is based on observed objects and events. An emphasis is put on objects rather than thoughts or feelings. In contrary to objectivism, constructivism stresses that social phenomena and their meanings are continually being accomplished by social actors and implies that social phenomena and categories are not only produced through social interaction but that they are in a constant state of revision” (Bryman, 2001, p. 18). That means, that ‘everybody’ has an influence on ‘social phenomena’ and how they are perceived. As ontology is the ‘study of being’, epistemology is the ‘study of knowing’. Depending on from which angle a researcher refers to ontology, one of the two epistemological positions are taken.

3.2 RESEARCH PARADIGMS

Following Kuhn's (1962) original use of the term 'paradigm', there have been at least 22 interpretations identified (Crabtree and Miller 1999; Perry 1998; Strauss and Corbin 1998). Fundamentally, paradigms represent a "worldview (value window) through which things are seen and known" (Blaikie 2000; Miles and Huberman 1994). This 'methodological matrix' forms an intellectual envelope that contains numerous unstated assumptions. For the purposes of this research, the term will be used to represent the "value judgments, norms, standards, frames of reference, perspectives, ideologies, myths, and theories" (Gummesson 1991, p.15) that have determined the perceptions and thinking contained in this thesis. One is concerned with the need to establish a "set of propositions that explain how the world is perceived" (Patton 1990, p.30) or, in this context, how the phenomenon of interest is perceived. The next section commences with a discussion of the need for a review of research paradigms. Realism is found to be the most appropriate paradigm on which to base the research undertaken in this thesis.

Within the *scientific* paradigm of the researcher there are two distinct approaches to theory development – *deductive theory building and testing* and *inductive theory building* (Perry 1998). The former employs a *positivist scientific* or *materialistic* inquiry paradigm and the latter employs a *phenomenological, naturalistic* or *hermeneutic* inquiry paradigm. The first of these inquiry paradigms, the *positivist* paradigm which "considers reality to be objective, tangible and single" (Decrop 1999, p.157) takes a reductionist stance in seeking out a singular, confirmable, objective truth or law of reality – usually through experimentation using quantitative techniques (Denzin and Lincoln 1998; Strauss and Corbin 1998). The *hermeneutic* inquiry paradigm uses a "more personal interpretative process in order to understand reality" (Gummesson 1991, p.152). Its view of the truth is ineluctable; it employs field study research, makes use of qualitative techniques and takes an expansionist stance in developing ideas through induction from the data (Guba & Lincoln 1998; Gummesson 1991; Denzin & Lincoln 1998). Thus, the *hermeneutic* inquiry paradigm is well suited to the nature of the research problem. In particular, Easterby-Smith et al. (2002: 27) offer these key features of the two philosophy paradigm alternatives.

Table 3.1 Research paradigms adopted after Easterby-Smith *et.al* 2002:27

	Positivist paradigm	Phenomenological paradigm
Basic beliefs	The world is external and objective Observer is independent Science is value-free	The world is socially constructed and subjective Observer is part of what is observed Science is driven by human interest
Researcher should	Focus on facts Look for causality and fundamental laws Reduce phenomenon to simplest elements Formulate hypotheses and then test them	Focus on meanings Try to understand what is happening Look at the totality of each situation; and develop ideas through induction from data
Preferred methods include	Operationalizing concepts so that they can be measured Taking large samples	Using multiple methods to establish different views of phenomena Small samples investigated in depth or over time

The third paradigm within phenomenology is the *realism* or *post-positivism* or *critical/ecological inquiry* and research paradigm (Guba and Lincoln 1998; Crabtree and Miller 1999). The ontology of this paradigm is that of *critical realism* in which “reality is assumed to exist but to be only imperfectly apprehendable . . . the dualism of positivism is largely abandoned . . . but objectivity remains a regulatory ideal” (Guba & Lincoln 1998, p.205). This paradigm, which Crabtree and Miller (1999) have referred to as the ‘global eye’, looks critically at the phenomenon of interest in an attempt to:

move from the false consciousness by reducing the illusions through the processes of historical review and the juxtapositioning of materialistic and interpretative inquiry (Crabtree and Miller 1999, p.11-12).

The characteristics of the *realism* paradigm are only partly consistent with the aims of this study in that it attempts to discover the ‘real’ world by critically evaluating and testing what knowledge we do have concerning the phenomenon of interest. It employs an *inductive* research strategy where the evidence leads to the conclusion, in contrast to deduction where the inference must be conclusive -

that is, it must be true and valid (Denzin and Lincoln 1998; Strauss and Corbin 1998). Provided systematic observation is employed, the conclusions reached using *inductive* research are no less scientific than those reached using deductive research. The difference is that in using a solely deductive approach, it is impossible for the conclusion to be false provided the premises are true (Hussey and Hussey 1997). Conclusions reached using the *inductive* approach, on the other hand, are neither true nor false but are valid until disconfirmed. *Inductive* conclusions are relatively imprecise but advance knowledge by improving understanding (Denzin and Lincoln 1998). Therefore, given that the *realism* research paradigm is objective, generalisable and testable, a research strategy based around this paradigm lends itself to investigating the research problem, even though *realism* only explains things in a probabilistic and imperfect way (Guba & Lincoln 1998, p.208).

Even though the *realism* paradigm satisfies the criterion of objectivity, it is subject to criticism on the grounds that it is partially reliant on qualitative data (Walle 1997). The relative merits of qualitative versus quantitative research methods have been the subject of considerable academic debate. Advocates of positivist, quantitative (data in numbers) methods criticize the qualitative (data in words) approach on the grounds that it lacks the scientific rigour of logical positivism (Walle 1997) whereas researchers from the hermeneutic group argue that quantitative (scientific) methods are but one way of telling a story (Denzin & Lincoln 1998).

These arguments highlight the ‘precision paradox’ (precision without understanding) of the *positivist* approach, and the ‘power paradox’ (understanding without predictive ability) of the *hermeneutic* approach (Stake 1995). However, it is accepted that the main aims of scientific inquiry are identification, description, explanation generation/association, explanation testing/prediction and prescription/control (Crabtree and Miller 1999, p.7) then it becomes evident that quantitative methods alone cannot satisfy all these aims in every type of research. Consequently, there is an increasing acceptance that research methods are no longer a case of ‘either/or’, and that a combination of qualitative and quantitative research methods is likely to produce a more holistic research outcome. For

example, quantitative data can be used to validate qualitative findings (Strauss & Corbin 1998) and as Walle (1997, p.524) has observed, "such an eclectic approach to choosing research methods is particularly suited to dealing with a complex phenomenon". Although the combining of quantitative and qualitative research may be frowned upon by some because of the vastly different theoretical backgrounds and methods of data collection in the two approaches, a combined approach can prove valuable in certain projects to maximize the theoretical implications of research findings (Anderson & Poole, 1994).

3.2.1 Selection of a Research Paradigm

Unfortunately, transport researchers have generally ignored the need to engage in the debate about the relative merits of research paradigms apparently preferring to get on with the job of analysis. This may explain the relative paucity of new theory being contributed to the debate on aviation issues. Most existing research into the airline industry has been conducted in the positivism paradigm where deduction has been the common standard for evaluation. Given the research problem as outlined in Chapter 1, the best fit was to follow the phenomenological paradigm. This was done recognizing the following parameters identified by Hussey and Hussey (1997:54).

- It tends to produce qualitative data: it takes an expansionist stance.
- Ideas are developed through induction: it looks at the totality of each situation.
- It focuses on meanings and tries to understand what is happening.
- It uses multiple methods to establish different views of the phenomena.

Objectivity

Attitude toward bias, particularly as introduced by the researcher, is affected by the underlying epistemic assumptions. Mellon (1990, p.26) states that objective researchers try to eliminate bias while subjective researchers recognize and acknowledge it.

Total objectivity is impossible for researchers who, after all, are human beings. The difference between the two research traditions is not that one has and one lacks objectivity. The difference is that naturalistic researchers systematically acknowledge and document their biases rather than striving to rise above them (Mellon 1990, p.26).

While this interpretation is somewhat simplistic in that conscientious objective researchers will certainly “admit” to biases of which they are aware, the perspective on bias is different between the two. According to Olson (1995) subjective researchers shift the focus from eliminating researcher bias to developing the relationship with the respondent. Again, the difference is in the separation or integration of the researcher/subject, whereas qualitative researchers endeavour to achieve what Lincoln and Guba (as cited by Bradley 1993, p.436) defined as credibility, transferability, dependability and confirmability as the “trustworthiness of qualitative research.”

The major shortcoming of the positivism paradigm is that the deductive approach to testing overlooks or ignores new variables or factors. As a result, theory testing is based on testing a previously constructed framework such as a specific model. The consequence of such in the field of airline research has been that economic variables including the price mechanism and supply side variables including transport have been largely ignored.

The alternative approach, deduction is possible only when the principles are already known. As previously argued, this is not the case in assessing the transferability of the low cost airline short-haul model to long-haul airline operations. In advice for postgraduate business students, Saunders *et al.* (2000) emphasizes the need for researcher objectivity is a preferred approach if the relationships or characteristics of the phenomena under investigation are to be identified. Finally, use of the peer review process (which is a characteristic of commensurable) to validate research findings and analytical methods used, is preferred if findings are to be widely accepted and employed in further research. For example, referring the key findings from this research such as cost differentials between FSAs and LCCs and transferable elements from the short haul model to longhaul was conducted to validate the findings.

3.3 RESEARCH APPROACHES

Research can have elements which are based upon a non-empirical approach, an empirical approach, or a combination of the two. For the empirical approach there are three primary dimensions which can be evaluated for use:

- Qualitative/quantitative
- Deductive/inductive
- Subjective/objective

These do not necessarily represent a simple either/or choice, but should rather be seen as the extent to which elements of the approach apply. Each of these will be explored in turn.

3.3.1 Non-empirical /empirical research

Non-empirical research

One of the first considerations to be faced is the pre-existing body of knowledge that exists in a particular field. Several authors of qualitative research advocate this approach, for instance Crabtree and Miller (1999), Denzin and Lincoln (1998), and Strauss and Corbin (1998). This should be used as a source of reference for research previously conducted in the chosen field of enquiry, as well as a source of the body of theory which pertains to the selected subject area. Some research depends entirely upon this research approach (more generally known as searching and reviewing the literature) on a certain subject, where the subject may be one, for example, of an historical nature which does not lend itself to any form of investigation.

The literature review was used in this research to address the research problem as identified by Saunders *et al.* (2000:46):

- To include the key academic theories within the chosen area: these were identified in chapter 1 and chapter 2 as the strategic windows concept within the strategic management literature.
- To demonstrate that the researcher's knowledge in a chosen area is up-to-date: as demonstrated in chapter 2.
- To show that the research relates to previous published research: as will be shown in chapter 4.
- To assess the strengths and weaknesses of previous work including omissions or bias and take these into account in your arguments: as will be shown in chapter 4.

- To justify the arguments advanced by the researcher by referencing previous research: as will be shown in chapter 4.
- Through clear referencing, to enable those reading the project report to find the original work cited: as per the references supplied in this document
- By fully acknowledging the work of others the researcher is able to avoid charges of plagiarism: as per the referencing and bibliography supplied in this document.

Empirical research

According to Hussey and Hussey (1997:10), four different types of research purpose exist: exploratory, descriptive, analytical or predictive. Whatever the purpose of the research, empirical evidence is required. They define empirical evidence as "data based on observation or experience". This understanding of the importance of gathering empirical data by observation or experience is also identified by Easterby-Smith *et al.* (1991). They use the term *fieldwork* which they assert is the study of real organizations or social settings, and that this research may use positivist or phenomenological methods. Summarised, this thesis has applied both the non-empirical and empirical research approaches. The non-empirical approach was used to inform the structuring and execution of the empirical research activities.

3.3.2 Deductive verses Inductive Approach to Theory Development

Analysis required to answer the research questions outlined in section 1.2 indicates that there is no universal acceptance of "one model" for a low cost airline although most researchers agree there core principles discussed in chapter 1 and 2. It was apparent that a number of different models can be applied. Thus, whilst there is wide debate and even confusion amongst academic researchers, for this thesis the models being applied are:

- (i) the core principles of low cost/low fare airlines
- (ii) the foundations and framework on strategic windows theory and strategic management

The next step is to decide on the nature of the theory building approach. Theory building of this nature has two main approaches, deductive theory testing and

inductive theory building (Bonoma 1985; Parkhe 1993; Romano 1989). Blaikie (2000) goes further and has postulated four different research strategies based on “distinctly different ways of answering research questions” (p.24). He defines these as *inductive*, *deductive*, *retroductive* and *adductive* strategies.

Induction can be described as the process of discovering explanations for a particular group or set of facts or observational evidence in favour of a previously unknown proposition (Parkhe 1993; Veal 1992). The *inductive* research strategy starts with the collection of data and then proceeds to derive generalizations using so-called “*inductive logic*” (Blaikie 2000, p.25). It is therefore consistent with the *realism* paradigm and suits the needs of this research. The deductive research strategy starts with some discovered, but unexplained regularity, postulates an explanation or theoretical argument, and deduces and tests hypotheses to validate or falsify the explanation or theory. According to Charmaz (1999) that is to say the strategic approach is summative in that it focuses on developing a broad, though relatively imprecise understanding of the interactions among the variables that are relevant in determining the performance of the observed regularity.

Deduction is a process of developing conclusions from something that is already known or assumed and based on accepted and existing principles (Parkhe 1993; Veal 1992). Ryan (1995) describes deduction as an inferential process based on reasoning from initial sources. The difference between the two approaches can be viewed in terms of scientific paradigms. The *inductive approach* represents the phenomenological paradigm while the *deductive approach* represents the positive paradigm (Perry 1998, Easterby-Smith *et al.* (2002:24).

Blaikie (2000, p.25) in discussing the *retroductive research strategy*, has noted that it starts from an observed regularity and seeks to explain it by discovering “the real underlying structure or mechanism that is responsible for producing the observed regularity”. It has its origins in *scientific realism* and is more easily applied in the natural sciences than the social sciences (Blaikie 2000: 108-111). Thus, the *retroductive* research strategy has applicability to this study. As observed above, an inductive research strategy is consistent with the realism paradigm and is therefore appropriate for this study. However, as various scholars

have observed, research strategies are not mutually exclusive (Blaikie 2000; Denzin & Lincoln 1994; Walle 1997). Perry (1998) concluded that it is impossible to go theory-free into any study and it is unlikely any researcher could genuinely separate the two processes of induction and deduction because as observed by there is an essential continuity and inseparability between inductive and deductive approaches to theory development. Therefore, the adopted research strategy whilst principally *inductive* is in part *deductive* and *retroductive*.

The decision to embark on theory building rather than theory testing opens the question of the selection of a suitable research paradigm. The *inductive* approach suggests a phenomenological paradigm while the alternative deductive approach suggests a positivist paradigm (Easterby-Smith *et al.* 1991:24; Perry 1998:3). These approaches represent opposite ends of the spectrum in theory building. The following section examines a range of paradigms to find the most suitable base for the theory building task required for this thesis.

3.4 RESEARCH STRATEGY

Following a review of a range of potential research strategies, this section outlines the advantages of case studies as the preferred research strategy for this thesis.

3.4.1 Types of Research Strategies

Research strategies commonly used in social science research are; histories, experiments, surveys, case studies, and analysis of archival data (Tsoukas 1989:551). Adoption of a strategy best suited for a specific research project depends on three conditions (Yin 1994:1);

1. the type of research questions asked,
2. the control that the investigation has over actual behavioural events, and
3. the focus on contemporary as opposed to historical phenomena.

These conditions will have a significant influence over the research strategies adopted as shown in Table 3.2. The form of research question will often dictate the research strategy. Thus, if 'how' and 'why' questions are to be asked in a controlled environment, the most appropriate research strategy is experimental.

Conversely, if ‘how’ and ‘why’ questions are to be asked in a situation where there is no control over behaviour, case studies are a valid approach.

Table 3.2 Relevant Situations for Research Strategies

Research Strategy	Form of Research Question	Requires Control Over Behavioural Events?	Focuses on Contemporary Events?
<i>Experimental</i>	how, why	Yes	Yes
<i>Survey</i>	how, what, where, how many, how much	No	Yes
<i>Archival analysis</i>	who, what, where, how many, how much	No	Yes/No
<i>History</i>	how, why	No	No
<i>Case Study</i>	how, why	No	Yes

Source: Yin 1994:6.

Figure 3.1 approaches the question of research strategies from a different perspective, based on shifts between one axis representing data integrity and the other axis representing currency (Bonoma 1985:200). The vertical axis, data integrity, identifies those characteristics of research that effect error and bias. Currency, represented by the horizontal axis, refers to the generalisation of results. Currency is an amalgam of external validity and ‘pragmatic’ or ‘ecological’ validity (Bonoma 1985). In an ideal research strategy, a researcher will aim for high levels of both data integrity and results currency. However, this is not always possible as adoption of a specific method involves trade-offs. Accordingly, a research strategy that aims to achieve a high degree of data integrity requires precision which may be achieved by precisely defined variables, a large sample size and a high level of control over the experiment. Conversely, a high level of currency may require observations in ‘messy’ settings and the ability to achieve cross-setting generalisations by use of unconstrained operationization of variables (Bonoma 1985).

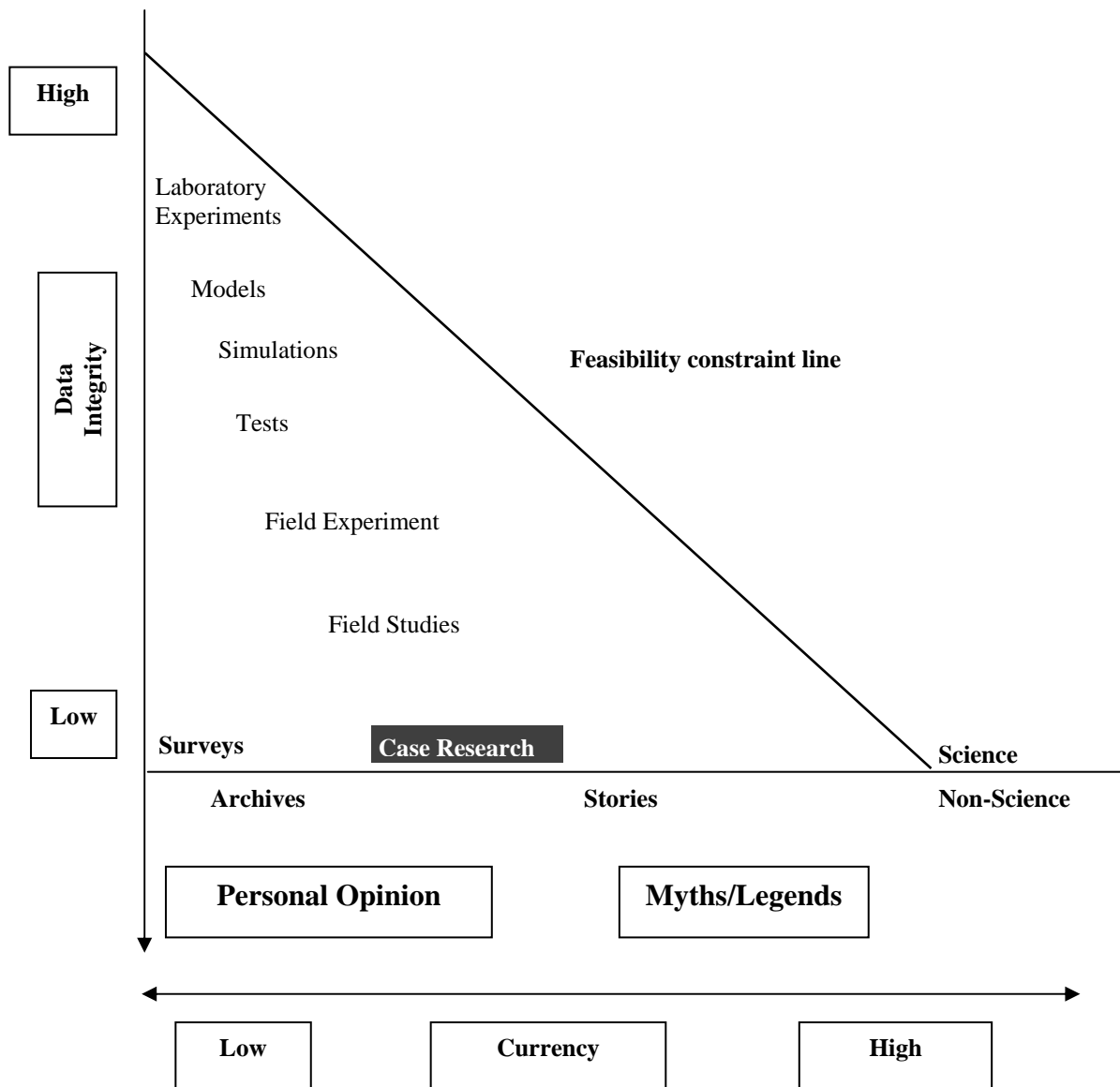


Figure 3.1 The Knowledge Accrual Triangle (source: Bonoma 1985, p.200)

3.4.2 Adoption of a Suitable Research Strategy

Adoption of a suitable research strategy for this thesis requires selecting a design that can accommodate the requirements of studying “a phenomenon in the making” that operates in a real-life context but which exhibits a range of historical characteristics. Longhaul, low cost could be described as “the third time around”. Scientific investigation requires the conduct of experiments in closed systems to identify casual laws that can then be generalised in the natural and social world that operates in an open system (Tsoukas 1989:552). The inability to examine events in a controlled environment rules out the use of scientific style laboratory

investigation techniques in this research. Similarly, it is difficult to see how the use of a survey design would find answers to the questions being asked as it would be difficult to first identify a population to survey. The nature of the research lends itself to just a small number of key informants with a particular knowledge of the airline industry. Thus, the role of discourse analysis is a consideration as a possible research strategy.

Discourse analysis can be defined as “. . . a generic term for virtually all research concerned with language in its social and cognitive context" (Potter and Wetherell 1987:6). An alternative working definition is provided by Burr (1995:46), citing Parker 1992:5) “. . . a system of statements which constructs an object".

In general terms, a 'pure' discourse analysis technique is concerned with the philosophy of language in a particular situation through its deconstruction, and with the substantive content of the discourse – the way a situation or position is described as much as the situation or position itself. For example, MacNagthen et al. (2005:54) uses the term "discourse" to mean “. . . not only observable linguistic activities, but also the world of human signs, symbols, activities, texts, etc which together comprise a particular world view". He further postulates that the aim of a formal discourse analysis is to “. . . unravel the processes through which the discourse is constructed and the consequence of these constructions".

"A discourse refers to a set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events. It refers to a particular picture that is painted of an event a particular way of representing it in a certain light (Burr 1995: 48).

Potter and Wetherell's (1987: 158-176) approach to discourse analysis provides a formalized system of obtaining and using discourse data. Although their principal interest is the deconstructed approach described above, the majority of their framework, summarized in Table 3.3.

Table 3.3 The stages in discourse analysis

Step	Description
1	Research questions
2	Sample selection
3	Collection of records and documents
4	Interviews
5	Transcription
6	Coding
7	Analysis
8	Validation
9	The Report
10	Application

Adapted from: Potter and Wetherell (1987: 158-176)

The questions asked in section 1.2 require a descriptive and evaluative nature of research therefore on balance, case studies offer the best fit of characteristics required to answer these questions. Moreover, case studies as a research design, is sufficiently flexible to incorporate elements of other research strategies including surveys, histories and archival analysis.

An alternative typology of research strategies, based more on method and data sources than on the way the research question is addressed, has been proposed by Yin (1994, p.6). He identified five broad research strategies, namely:

- an experimental approach
- a survey approach
- an archival approach
- an historical approach
- a case study approach

The first of the five strategies, the experimental approach, is deductive and requires control over the variables being studied and is therefore, unsuited to the aims of the research. Surveys can be used in inductive, deductive and retroductive strategies but have limitations and do not conclusively address the ‘why?’ question. Notwithstanding its limitations, in-depth interviews with a small number of key respondents considered as expert in their field was chosen as a

research strategy to obtain insights and to validate views and opinions concerning key questions. This is discussed further on in the chapter.

The third of Yin's research strategies is that of archival analysis. This strategy can be applied in this research given that longhaul low cost airlines can trace its origins to charter airlines and Sir Freddie Laker's "Skytrain" up to the 21st century contemporary low cost airlines with a new business models. Thus, Yin's (1994) research strategy using archival analysis has some usefulness and is a relevant strategy for the phenomenon under investigation, as is his fourth strategy, the historical approach.

The final research strategy identified by Yin is the case study strategy. Yin defined a case study as an empirical inquiry that (Yin 1994, p.23):

- investigates a contemporary phenomenon within its real-life context; when
- the boundaries between the phenomenon and context are not clearly evident; and
- in which multiple sources of evidence are used

In a subsequent refinement of this definition, Yin (1994, p.13) stressed that "the case study is not either a data collection tactic or merely a design feature alone, but a comprehensive research strategy". Specifically, the case study approach offers a 'bounded system' within which to examine the research problem (Gummesson 1991; Stake 1995). As such, it is well suited to illuminating a decision, or set of decisions and explaining why they were taken, how they were implemented, and with what result (Yin 1994). Bachor (2000) succinctly states case study analysis as fundamentally "outcome evaluation" and provides what he termed 'face-value credibility' (Bachor 2000). That is, there is an onus on the researcher to conduct the case study in such a way that the result can be communicated to the reader. According to Stake (1995; xi) "a case study is intended to catch the complexity of a single case". Furthermore, he emphasizes that "a case study is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances," and that, "the time we spend concentrating on the one may be a day or a year, but while we so concentrate we are engaged in case study" (Starke 1995; 2). Merriam (1988:11-

15) described five essential characteristics of case studies as: descriptive or holistic, particularistic, lifelike, grounded and exploratory, heuristic and inductive. According to Yin (1994) case studies also enable the integration of patterns of behaviour for understanding phenomenon of interest.

3.4.3 Types of case studies

Jensen and Rodgers (2001:237-239) listed the types of case studies that exist:

- *Snapshot case studies.* Detailed, objective study of one research entity at one point in time.
- *Longitudinal case studies.* Quantitative and/or qualitative study of one research entity at multiple time points.
- *Pre-post case studies.* Study of one research entity at two time points separated by a critical event. A critical event is one that on the basis of a theory under study would be expected to impact case observations significantly.
- *Patchwork case studies.* A set of multiple case studies of the same research entity, using snapshot, longitudinal, and/or pre-post designs. This multi-design approach is intended to provide a more holistic view of the dynamics of the research subject.
- *Comparative case studies.* A set of multiple case studies of multiple research entities for the purpose of cross-unit comparison. Both qualitative and quantitative comparisons are generally made.

3.4.4 Advantages for Case Studies

Case study analysis has been defined as “a research method employed when attempting to attribute causal relationships when the phenomena under study is not readily distinguishable from its context” (Yin 1994:3). Case studies are particularly applicable when investigation covers both a particular phenomenon and the context within which the phenomena is occurring because, either;

- the context is hypothesised to contain important explanatory variables about the phenomena , or
- the boundary between phenomena and the context are not clearly evident (Alkin 1992).

As a method of research, case study analysis enables an evaluation to be made of the phenomena and the context in which it is occurring such as this research which is about the strategic windows concept applied in an airline setting. Discussion of the context poses distinctive technical challenges that include;

- the number of variables are likely to exceed the number of data points,
- the study will not rely on a single data collection method therefore requiring multiple sources of evidence, and
- even if relevant variables are quantified, the research methodology needed for analysis will require distinctive strategies (Yin 1994:3.).

Case study analysis is one method of achieving a research design that will achieve these requirements and is a widely used method of research in business and medicine as well as tourism and transport. According to Feagin et al. (1991); Cavaye (1996); Denzin and Lincoln (1998) case studies can be as rigorous as mainstream research, providing attention is given to the logic and practice of case study research. Case study research has steadily gained wider acceptance from the mid 1990s because in part it enables researchers to explain changes and conduct evaluation studies that have transformed economies and societies. The wide body of literature on case studies suggests its growing acceptance as a legitimate research method even although it may lack the structural frameworks of more formal research.

Eisenhardt (1989) provides much advice regarding best practice use of the case study technique. She warns about being overwhelmed by the sheer volume of qualitative data which is often generated within a single piece of research. This translates into observing well-defined interview protocols. She also advises against applying any bias within the data collection process by beginning the research as close as possible to a "no theory under investigation" position. Good practice in this regard includes working to a rigid, or at least a semi-rigid, questioning framework. The choice of interview sample is also important. The idea of a non-random sample is supported, provided it is chosen in such a way that the data can be used effectively to develop theories from a broad range of differing perspectives.

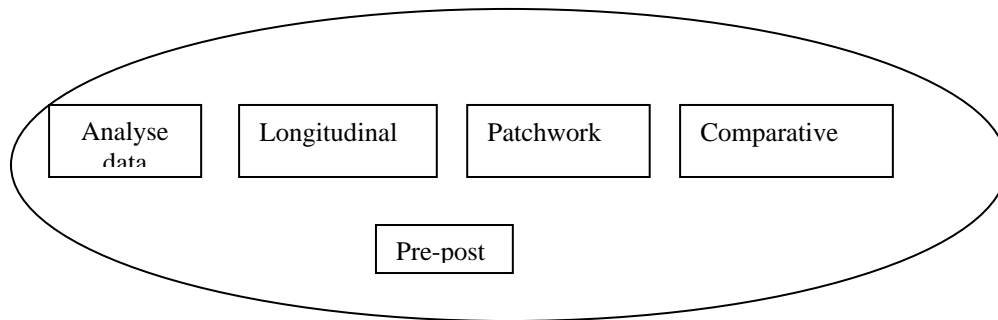


Figure 3.2 Choice of case study type

This study was undertaken as a patchwork type case (see Figure 3.2) as it involves storytelling in the context of the application of strategic windows by two quite different low cost airlines in the Asia-Pacific region, their rapid growth and expansion over the past five years, the system of international aviation traffic rights, Australia’s international aviation policies and open skies and how this has evolved, to cost modelling undertaken to establish whether a longhaul, low cost entrant could attain a cost advantage compared to full service airlines. This involved a series of contacts to understand the nature of knowledge sharing and the use of storytelling in the organisation.

In defence of case research, Stake (1994, p.236) maintains that a “case study is both the process of learning about the case and the product of our learning”. It is this constant juxtaposition of conflicting realities when building theory from cases that forces researchers to reframe their perceptions and which has the potential to reduce bias (Parkhe 1993). In response to the assertion of lack of statistical validity, Eisenhardt (1989) describes case study selection as *theoretical sampling* designed to represent different aspects of reality. Because of their complexity, Gummesson (1991) argues that it is only possible to work with a limited number of cases and that although generalizations can be made from case studies they have to be approached differently from statistical generalizations. Yin (1994, p.38) describes this as *analytical generalization* as opposed to *statistical generalization*. Thus, case study research can be considered particularly well suited to conducting outcome-oriented evaluations of policy and performance.

Although the case studies approach may be criticised on the basis that it lacks the rigour able to be obtained from observations and questionnaires used in quantitative research, it is a useful method of identifying variables. The application of case studies methodology involves analysis of real “messy” situations (Christensen and Hansen 1987). Perry (1994) noted that in recent years a number of dissertations have adopted a case study approach and achieved a high rate of success. Examples were cited in diverse areas such as marketing on the internet, business, engineering, customer service, banking, and marketing of community museums and organisational accountability of the marketing communications functions. The apparent success of the approach goes some way to countering the criticism of Easterby and Smith (2002) that case study dissertations exhibit a ‘mindless empiricism’ and should be eliminated as a research methodology.

3.4.5 The Disadvantages against Case Studies

A number of researchers have raised concerns over the use of case studies as a research strategy. For example, Adams and White (1994) found that much of the qualitative and case study research was mindless in that it was not guided by a theoretical framework nor did the findings have any relevance to theory or practice. Their criticism against case study methodology raise a number of valid concerns such as the apparent lack of rigor of case study research as well as concern that there is little basis for scientific generalisation. Other concerns have been raised over the length of time taken to complete case studies and the massive documentation that is produced (Feagin, Orum and Sjoberg 1991). The concern over bias in results is valid but not restricted to case study research. Bias can also be encountered in experiments, survey question design (Sudman and Bradburn 1982) and when conducting historical research (Stake 1995; Denzin and Lincoln 1998). Basing generalisations from the findings of single case studies runs the same risk of developing generalisations on a single study. Developing generalisations from the findings of multiple case studies reduces the risk of bias in the same manner that basing generalisations on the results of multiple experiments is a more appropriate scientific approach (Yin 1994:10)

Finally, Eisenhardt (1989) expresses caution about the way in which the analysis within a case study approach is used to build theories. She cautions against its incorrect usage whereby there is a leap from field data to conclusions with the qualitative data being used for little other than vivid illustration. The researcher must look at the data in as many divergent ways as is practicably possible in order to identify categories or dimensions, and then establish groupings of similarities and differences. The strengths of theories developed in such a way are that a novel outcome may arise, resultant theories may be testable and that these theories are likely to be empirically valid. The drawback of the technique can be that these theories can be detailed but overlook the overall perspective and that the theories might reflect the sample by being narrow and possibly idiosyncratic.

The main argument against case study research is that it lacks statistical validity, it can generate hypotheses but cannot test them, and they are difficult to extract from their own detail. Generalisations cannot be made on the basis of case studies because of low external validity, and because they rely on description of events over time, they lack consistency (Tsoukas 1989; Parkhe 1993). These limitations call for trade-offs but, by employing a broader rather than narrower method set (Bonoma 1985); assertions that case studies are an excuse for sloppy research can be overcome by the intelligent application of a mixed method approach (Gummesson 1991; Yin 1989; Blaikie 2000).

3.5 Selection of Case Study Organisations

Hussey and Hussey (1997:67) proposed that in selection of a case study organisation the researcher should select a critical case which encompasses the issues in which you are most interested. Darke *et al.* (1998:281) support this notion adding *relevance* but noted that the following should be clear:

- An overview of the organisation's position in relation to the research question
- A rich description and understanding of the nature of the phenomenon in the organisation
- That the research results will be pertinent to them
- The results will be available within a useful timeframe.

The next section will discuss the selection of the case study airlines.

Jetstar

Jetstar exemplifies application of the strategic windows theory in its ability to enter routes, capture a market share and sustain its operations. The airline has demonstrated its ability to complement its parent owner's network in both domestic and international markets and the application of "one airline/two brands" carrier –within-a-carrier strategy. By the end of 2010 the airline had carried over 40 million passengers in its relative short history of just over 6 years. Jetstar has been and will continue to be an important profit contributor to the Qantas Flying Brands business. Finally, Jetstar is seen as the likely Qantas response to competition from Asian and Gulf State airlines given its lower cost structure than its parent airline. The success of Jetstar rebukes earlier research that poured scorn on the carrier-within-a-carrier strategy. The airline has capitalized on the following external environment changes:

- A demand by airline consumers for safe, low cost travel;
- The trend towards short-break holidays;
- Deregulation and liberalization both within Australia and within Asia-Pacific;
- Labour market changes allowing greater workplace flexibility;
- Collaboration with tourism organizations and airports to share risk in operating new services.

Air Asia

Air Asia has grown remarkably from its early beginnings in taking over a financially troubled airline to become Asia's largest low cost airline. Air Asia has been selected as a case to highlight the application of strategic windows and its ability to be adaptive, flexible, agile and innovative. From its Kuala Lumpur base it operates to over 65 destinations and carried over 27 million passengers in 2010. Its operating fleet comprises 86 A320 aircraft and has a further 136 aircraft on order for delivery through to 2013. The case study considers the critical success factors that have transformed the airline into what it is today. In contrast to Jetstar, Air Asia is independent but has franchised its longhaul operations to

Australia, London Stansted and Paris Orly. Whilst Air Asia remains an independent airline, its structure and shareholding is in marked contrast to Jetstar. Sir Richard Branson's Virgin Group has a 20 per cent equity stake in Air Asia X - the longhaul franchised business and in August 2011, Malaysian Airlines undertook an equity swap with the Group. However, both investors whilst having Board representation appear to be relatively passive. Air Asia's expansion into Thailand and Indonesia has been through establishing franchise operations. Air Asia operates in stark contrast to the long established national airline, Malaysian Airlines owned by the Malaysian government. The airline conforms to the core principals of "low cost" but has its own idiosyncracies. Air Asia claims to have the lowest operating cost of any airline at US 3.5 cents per available seat kilometer but has not been without some controversy over fuel saving measures and investigation by Australia's Civil Aviation Safety Authority over low approaches into Gold Coast Airport (Australian Aviation Express, Issue No.367, 11 July 2011).

3.6 RESEARCH METHODS

3.6.1 Introduction

The research design or strategy alternatives are many and will influence the findings of research activity. In designing research, the main considerations are selection of research methods and evaluation of research results. According to a number of authors (Cavaye, 1996; Darke *et al.*, 1998; Hussey and Hussey, 1997; Miles and Huberman, 1994) they include alternatives such as the creation of an experiment (common in pure scientific research); surveys (often used where large volumes of data are involved with quantitative methods of analysis); grounded theory (where the theory is generated by the observations rather than being decided before the study); ethnography (a phenomenological methodology which stems from anthropology, which uses observed patterns of human activity); action research (where the research takes more of the form of a field experiment); modelling (where particular models are developed as the focus of the research activity); operational research (which looks at activities and seeks to understand their relationship, often with particular emphasis on operational efficiency), and, finally, case studies (which seek to understand social phenomena within a particular setting). Given the nature of the research problem as outlined in

Chapter 1, it was decided to select the case study alternative as being the most appropriate for this research project.

3.6.2 Related Research

The past decade has seen a rich body of literature discussing the low cost airline industry and its impact on aviation markets. There is a generally held view amongst academic researchers that the industry is not homogenous and that “one size does not fit all”. Different terms have been used to describe LCCs from a concept to a philosophy to a business model with some researchers going so far to describe LCCs as evolutionary (Blaha 2003). In total, more than 150 articles, papers and speeches over a period of a decade have been studied by the researcher on the low cost airline industry. Given the importance and dependence of international air transport connections by Australia to its global markets for trade and tourism, this research is contemporary and adds a new dimension to the literature. Table 3.4 highlights a summary of selected works and the main conclusions from the literature.

Table 3.4 Related research

Author(s)	Study Title	Main Conclusions
Button (2002)	International liberalization and regulatory reform of aviation	Debate has been conducted in the abstract, with logical argument being deployed of studies in support of regulatory reform. Opined that the number of studies of this kind looking strictly at international air transport have been relatively small in number. Statistical information has supplemented these theoretical and political arguments with evidence drawn from a range showing the benefits of freer aviation markets
Goold (1999)	European Liberalization	Discusses effect of 'open skies' replacing former bilaterals and opening up of market as a result of liberalization
Ballantyne (2000)	Deregulation Testing Times: Only the financially fit will survive	Overviews developments in Asia and warns FSAs facing threat of new low cost entrants, however many governments were still protective of their national carrier
Childs (2000)	The emergence of 'No Frills' Airlines in Europe: an example of successful marketing strategy	Identified and discusses marketing strategies by LCCs that differentiate them from FSAs
Franke (2004)	Competition between network carriers and low-cost carriers – retreat battle or breakthrough to a new level of efficiency?	FSA's would need to adapt their product/service where competing directly with lower cost/low fare airlines. Observed the withdrawal of high cost/high fare FSAs on routes where LCCs had entered

Author(s)	Study Title	Main Conclusions
Lindstadt & Fauser (2004)	Separation or Integration? Can network carriers create distinct business streams on one integrated production platform?	Doubted that a network carrier could operate and integrate a low cost subsidiary airline citing “cultural differences” and a service mindset.
Cobb (2005)	“Today’s airlines should adopt a low-cost strategy: can this popular idea be supported by the facts?”	Considers cost pressures on airline managers and the need to apply cost reduction strategies across an airline’s total business platform
Alamdari & Fagan (2005)	Impact of the Adherence to the Original Low-Cost Model on the Profitability of Low-cost Airlines,	Acknowledge LCCs as a business concept- evolved and being reworked and adopted from original Southwest model. Found LCCs following a product differentiation strategy as opposed to cost leadership.
Humphries, Ison & Francis (2006)		Warn that the low cost airline sector is somewhat volatile and is characterized by a high number of route entries, operators going out of business and transferring their services to other airports. Warn that there is a danger that once airport financial packages expire and are not renewed LCCs will withdraw services
Forsyth (2007)	New Challenges in Long Haul Aviation Markets	Discusses impending change in long haul markets between Australia/Asia/Europe due to LCCs and rapid growth of Gulf State carriers now flying into Australia who are able to 'hub' European destination traffic through Dubai, Abu Dhabi.
Kjelgaard (2007)	Low fare, Long Haul: Second Time Around,	Considered that LCCs would seek new markets and move to longhaul notwithstanding bilateral air agreements and route access. Noted Zoom (Canada) and Oasis (Hong Kong) hence “second time around” in reference to 1970s Laker and People Express pioneers.
Mason & Morrison (2008)	Towards a means of consistently comparing airline business models with an application to the ‘low cost’ airline sector,	Not all LCCs are homogenous. Many are Southwest “copycats” but adaptive to their own markets. Most LCCs adhere to a set of ‘core’ principles.
Morell (2008)	Can long-haul low cost airlines be successful?	Considered transferable elements and operational characteristics. Acknowledged that savings not as great for LCC longhaul compared to short haul but provided no detailed cost data.
Pels (2008)	Airline Network Competition: Full-service airlines, low cost airlines and long-haul markets,	Comparative analysis where FSAs and LCCs overlap and compete. Observed different characteristics of longhaul routes such as wide-bodied aircraft, slower turnarounds, additional crew and that cost savings would not be as great.
Wensveen & Leick (2009)	The long-haul low cost carrier: A unique business model	Determined three different types of airlines - product specialist, a network specialist and a price specialist. Discussed transferable elements from short haul to longhaul. Did not model

Chapter 2 also identified the following characteristics of existing research into studies of low cost airlines.

- extensive use is made of discourse and content analysis,

- case study research is primarily based on qualitative research methods and is suited to examine a single case such as a single low cost airline; comparisons between full service and low cost airlines; determining a model for this sector of the industry; and the interrelationship between airlines and airport companies;
- empirical studies have been used to benchmark low cost airlines used in comparative studies such as financial and traffic performance including comparative performance against full service airlines,
- a combination of qualitative and quantitative research methods are used including statistical analysis
- studies of the aviation industry rely extensively on strategic and statistical analysis that are "case building" which therefore places such research in the "existing theory" category of research rather than "theory building" as the basis for developing explanation.

3.6.3 Data collection - discourse

As described in 3.2.1 the process studied within the program of work was highly dependent on *content analysis* gained from the considerable sources of secondary information and tertiary data (for example official airline bodies and government agencies) most of which is available in the public domain. *Secondary data* has certain advantages over conducting primary research when the data suits the needs of the researcher and can be deemed to be reliable. Rea and Parker (1997) state that certain data may already exist that can serve to satisfy the research requirements of a particular study provided it has come from technically reliable sources. The use of secondary data offers two advantages: (1) it is almost always less expensive than the collection of primary data; and (2) less time is involved in locating and using secondary data (Dillon, Madden & Firtle 1993; McCormack & Hill 1997). Secondary data also offers the advantage of its low cost and quick collection, notwithstanding a time lag in gathering recent data (Stewart 1993).

Another source of variation concerns how one collects one's data. There are three broad orientations (Boeree 1998).

1. A past orientation – collecting things that are the result of past experiences
2. A present orientation – observing (or introspecting) what is happening now

3. A future orientation – eliciting your data, making it happen as an interview or a project

Data analysis

The next step in the research design is to frame the data collection and analytical processes to be employed using Miles and Huberman’s (1994) data analysis flow model. This reflects the ongoing conclusion-drawing process as data is collected, reduced (i.e. transformed into a meaningful conceptual framework), displayed (either in numeric form in the case of quantitative data or narrative text in the case of qualitative data); and verified. The term ‘verification’ used in the Miles and Huberman model (Figure 3.3) poses some problems when applied to inductive research using qualitative data, where it is not possible to provide conclusive support for the findings. Therefore, in this study, the criteria of validity, reliability and generalisability are used as a basis for deducing conclusions.

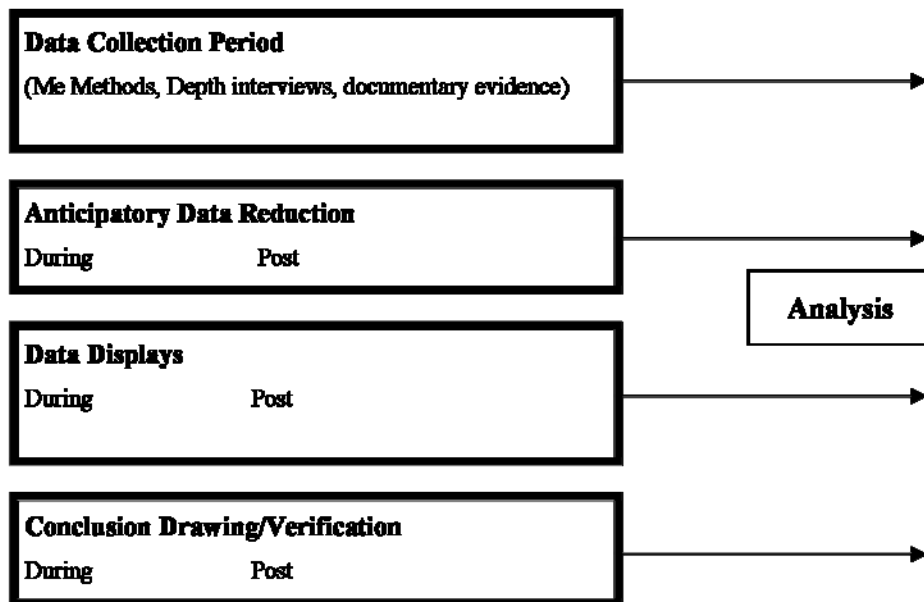


Figure 3.3 The Data Analysis Process

Source: Miles and Huberman (1994)

The use of qualitative data, while it may contribute to a more holistic view of the phenomenon by contributing truthfulness and transparency to the analytical process, also presents questions of bias. The most common forms of bias have been described as “the holistic fallacy” - interpreting events as more patterned and congruent than they really are; “elite bias” - over-weighting data from articulate and high status informants and under-weighting data from inarticulate lower status

ones; and “going native” - being co-opted into the perceptions and explanations of the local informants (Miles & Huberman 1994, p.230). In this study the problem of bias has been countered in several ways: these include the various data sources used and their factual basis such as airline quarterly, half yearly and annual reports, presentations at aviation seminars, cost data collected by highly reputable aviation organisations such as IATA, ICAO, AEA and CAPA, and the researcher's own understanding of the phenomenon under investigation drawing from a career in transport. Thus, the overall research design might best be described according to Walle's (1997, p.14) “craft approach”.

3.6.4 Depth interviews

The purpose of conducting a limited number of depth interviews was to obtain valuable insights, a broader understanding of issues and from an outsider looking in. In-depth interviewing, as its name suggests, refers to a prolonged conversation between two people with a specific research purpose (Easterby Smith *et al.* 2002; Veal 1997). The term *depth* derives from the nature of the discussion, which is more penetrating and thorough than is possible in casual conversation or in the sample research process (Rea and Parker 1997, p.82).

In-depth interviewing can take several forms, ranging from unstructured to structured (Dillon *et al.* 1993; Gummesson 1991). Completely unstructured interviewing relies on fluid conversation between two people without the aid of set questions. According to Churchill (1996), a general concept is brought to the interview, but the nature of the interview is entirely guided by the interviewee and what he or she wants to emphasise. By comparison, in structured interviewing, the interviewer develops and provides a list of ordered questions that do not change from respondent to respondent (Churchill 1996). By using completely structured interviews, there is little allowance for improvisation or flexibility on the part of the interviewer or for using one's own judgment and intuition. A questionnaire in which the questions are fixed but the responses are open-ended would represent an immediate degree of structure (Churchill 1996, p.280). Situated between the unstructured and the structured interview is the semi-structured, or focussed interview style (Emory 1985; Veale 1997; Easterby-Smith *et al.* 2002). Figure 3.4 below shows the design alternatives.

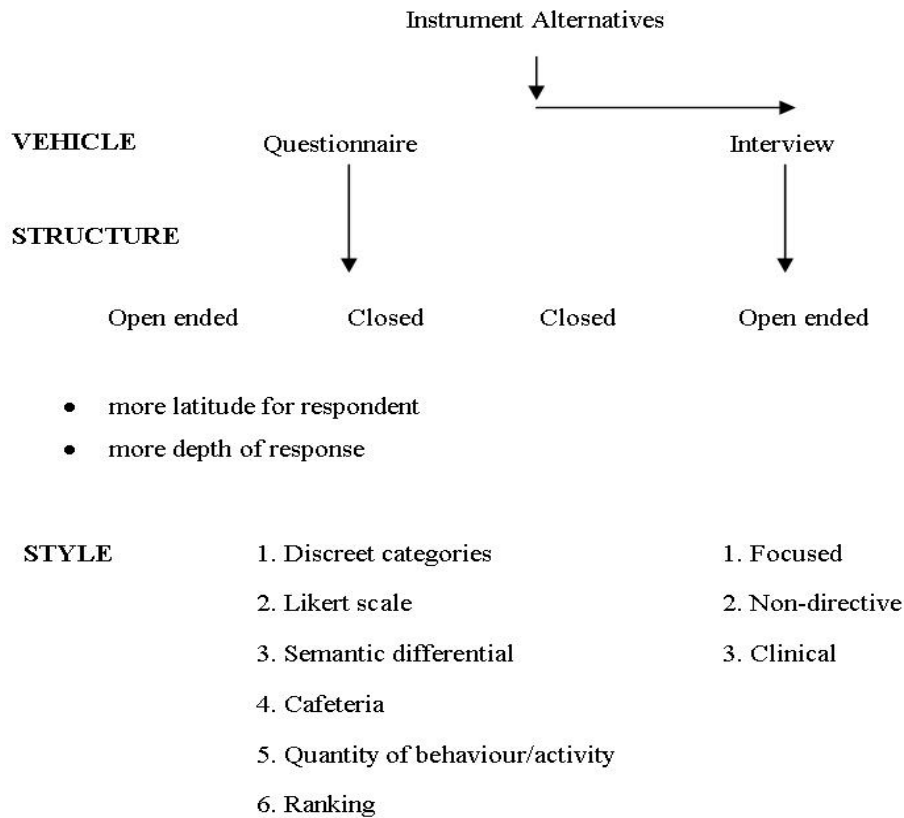


Figure 3.4 Survey Instrument Design Alternatives

3.6.5 Sample Selected

In-depth interviews were arranged with a small, discrete number of key informants that included senior airline personnel, specialist airline writers/commentators and industry analysts/economists such as the Sydney-based Centre for Asia Pacific Aviation Studies (see Table 3.5 below). Key informants were asked if they could be listed in the thesis including their title and organisation. No objection was raised. Some preliminary discussions began amongst key aviation informants whilst the researcher was a participant at an Airport Development conference from 15-18 August 2007 to gather further insights and then followed up by a semi-structured interview at a subsequent conference held in Sydney 4-5 June 2008. Further interviewing either in person, by email or by telephone took place between 2009 and the first half of 2011.

Three airlines were interviewed by the researcher, two of which are the subject of case studies. As the researcher has found in previous work, normally, airlines are reluctant to be interviewed by private researchers although in this thesis the issues

were not commercially sensitive and most areas of questioning are in the public domain. Besides face-to-face interviews, phone calls and emails were used in particular to airline organisations and specialist aviation writers.

Table 3.5 Organisations and Key Informants

Organisation	Key Informant	Title	Number of Contact Interview			
			F-to-F	Email	Tel	Total
Virgin Australia	Mr. Brian Porter	General Manager, Contracts and Maintenance Control	3	1	1	5
Air Asia X	Mr. Osman Rani	Chief Executive	1	2		3
Jetstar	Mr. David Koczkar	Chief Commercial Manager	1	1	2	4
Centre for Asia-Pacific Aviation Studies	Mr. Derek Sadubin	Chief Operating Officer	2	2	1	5
	Dr. Peter Harbison	Executive Chairman	1	3	1	5
Aviation Business Asia Pacific	Mr. Doug Nancarrow	Editor	2	1		3
Orient Aviation	Mr. Tom Ballantyne	Chief Correspondent	1	2		3
Air Biz	Mr. Greg Fordham	Director	1	1		2
Department of Infrastructure, Transport, Regional Development and Local Government	Mr. Neil Williams	General Manager, Aviation and Airports	1	1		2
	Mr. Samuel Lucas	Director Air Services Negotiations, Aviation & Airports Division	2	2	1	5
"The Australian"	Mr. Steve Creedy	Specialist Aviation writer	1	3		4
Tourism Task Force Australia	Mr. Chris Brown	Managing Director	1	1		2
Brisbane Airport Corporation	Mr. Koen Roojimans	Former CEO and a former KLM Dutch Airlines senior executive	1	1	1	3
Civil Aviation Safety Authority (CASA)	Mr. Dick Smith	Former Chairman during the Howard Government years	1	1	1	3

According to Churchill (1997) and Dillon *et al.* (1993), this form of sampling is termed *purposive sampling* or *judgment sampling* which is a non-probability technique when the researcher uses judgment in selecting respondents who are considered to be knowledgeable in subject areas related to the research. Most typically, the sample elements are selected because it is believed that they are representative of the population of interest, or they can offer researchers the information they need (Churchill 1997, p. 483). When searching for ideas and insights, the researcher is not interested in sampling a cross-section of opinion but rather those who can offer some perspective on the research question. Table 3.6 below shows the research characteristics and applicability to this study.

Table 3.6 Research Characteristics and applicability to this study

Item	Type	Applicable	Comments
Research philosophy	Positivism	No	Study examines phenomena in the 'real' world
	Phenomenological	Yes	
Theory	Theoreticians' theory	No	Study involves analysis, evaluation, 'hands on' research including depth interviews
	Researchers' theory	Yes	
Core Paradigm	Consultant Scientific	No	Intended to increase the body of Knowledge; determine outcomes
		Yes	
Scientific paradigm	Positivist	No	Seeks meaning from the data in the pursuit of better understanding
	Hermeneutic	Yes	
Methods	Quantitative	Partial	Triangulation main method
	Qualitative	Yes	
	Case studies	Yes	
Strategic approach	Inductive	Yes	
	Deductive	Partial	
	Retroductive	Partial	
	Adductive	No	
Research strategy	Experimental	No	In-depth interviews conducted Uses statistical data Use of reports, papers Develops case studies to present findings broaden knowledge and understanding of phenomena
	Interviews	Yes	
	Secondary/Tertiary data	Yes	
	Historical/Archival	Yes	
	Case Study	Yes	
Unit of Analysis	Explanatory	Yes	Seeks to explain both 'what' and 'why' from the analysis of outcomes
Type of Analysis	Exploratory	Partial	Builds on prior understanding of phenomenon
	Descriptive	Yes	Describes phenomenon in real life setting
Sampling approach	Non-probability Replication	Yes	Uses judgment in sample selection for depth interviews
		Yes	Uses replication logic
Research instruments	Depth interviews	Yes	Semi-structured with key informants
	Documentary evidence	Yes	Primary, secondary and tertiary
Verification/ Falsification	Triangulation	Yes	All five types of triangulation used
Data Analysis	Pattern matching	Partial	To the extent of similar patterns occurring at other regional airports
	Explanation building	Yes	To the extent that explanations can be postulated from the data

Source: author created for this research based on references cited in the text.

3.7 RESEARCH DESIGN

This section outlines the research design including the study bounds, the research instruments and data sources used. It then describes the performance indicators used in the data analysis and concludes with a brief description of study protocols and ethical considerations.

3.7.1 Design Outline

Given the nature of the research problem, the research design had to have certain core qualities. In addition to its prime objective of extending knowledge, the study is directed at evaluating the outcomes of the phenomenon of interest. This entailed identifying the intended users of the study (Patton 1986), that could be low cost airlines in the Asia-Pacific region, full service airlines contemplating a low cost subsidiary operation, airports, government aviation policy-makers and regulators, and other researchers investigating the low cost airline sector. The selection of the optimum methods to provide answers to the research questions has been determined with these considerations in mind.

Graycar's (1979) policy evaluation model provided a framework for these considerations. The model identifies four groups of issues that need to be considered in conducting evaluations, namely: *conceptual issues*, *measurement issues*, *operational issues* and *political issues*. With regard to *conceptual issues*, the evaluations in this thesis are more *formative* than *summative* in that they are outcome and impact evaluations based on process evaluations (Hall & Jenkins 1995; Carter 2000). *Measurement issues* were resolved by the adoption of a 'mixed method' approach built around the evaluation of data (Gilchrist 1992). The main *operational issue* was distilling the different views and opinions held by different aviation specialists, writers and commentators. The political issues to try and overcome proved more difficult and frustrating. Government officers prefer to speak unofficially to private researchers although they had no objection to their names, position and organisation being listed. The most sensitive issue was the granting of traffic rights into Australia for Gulf State airlines which the researcher probed and whether this is undermining Australia's own national carrier, Qantas. Government aviation officials defend their policy position as was outlined in

chapter 2. With the above considerations in mind, the research design was adapted from models devised by Sekaran (1992), and Carter's (2000, p.70) adaptation of Crabtree and Miller (1999) logical-deductive approach to inquiry – which is an inductive process consistent with the realism paradigm that underpins this work.

Although there is greater recognition of the potential advantages of multi-method research, the researcher needs to carefully consider several important issues before doing such work. Using multiple strategies in a single study requires attendance to the bias-checking procedures for each method. The investigator needs a wider repertoire, knowledge level and expertise in each of the methods. When it comes to data analysis, issues need to be addressed about how numerical data and linguistic or contextual data are combined, how divergent results between numerical and linguistic data are interpreted, how will overlapping concepts that emerge that are not clearly differentiated from each other be handled, whether and how data sources should be weighted, and finally whether each method used should be considered equally valid.

Figure 3.5 shows the research design adopted from the theories of Sekaran (1992), Carter (2000, p.70); and Crabtree and Miller (1999).

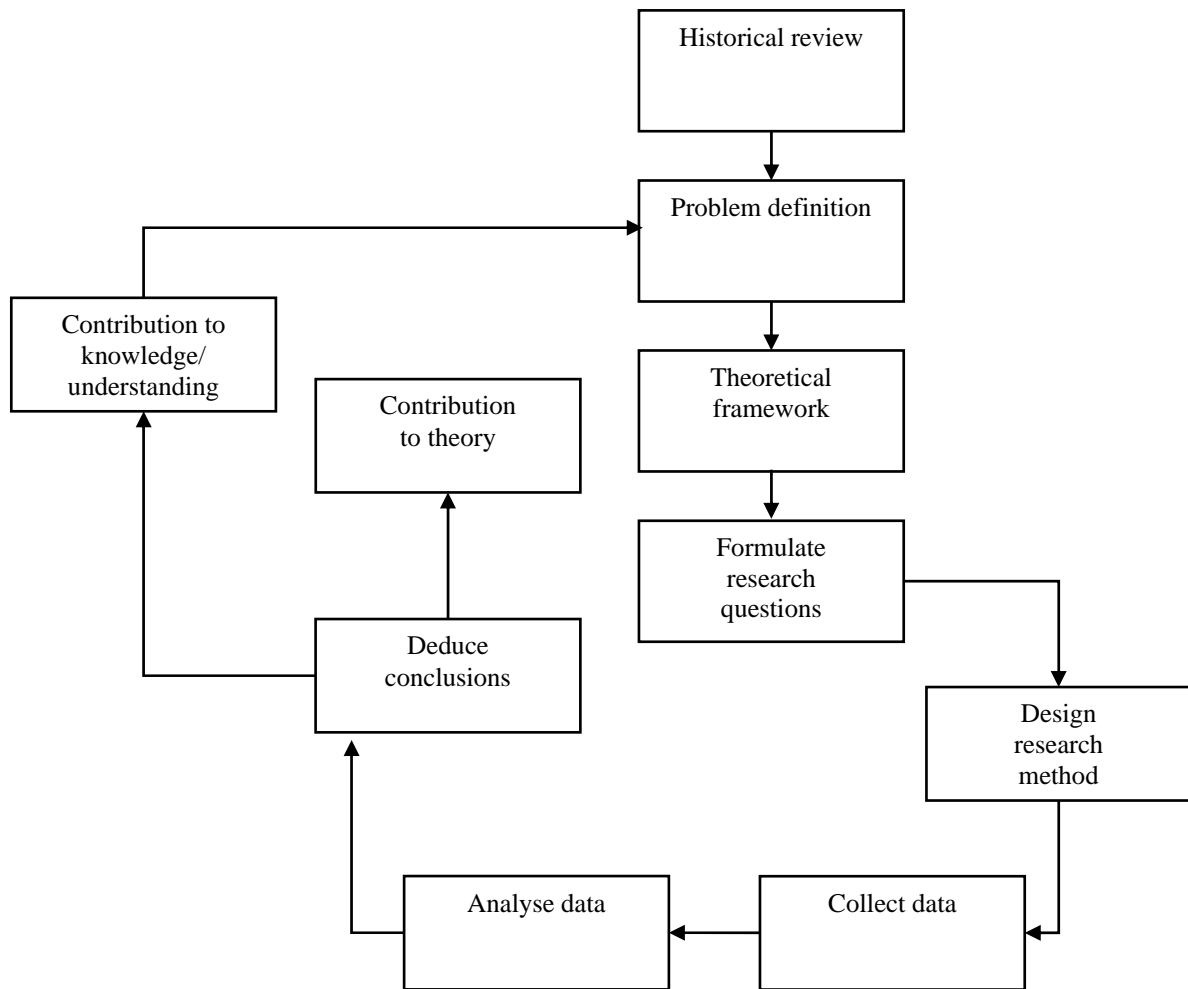


Figure 3.5 Research Design adapted from models by Sekaran (1992) and Carter (2000, p.70); Crabtree and Miller (1999)

3.7.2 Study Bounding

The execution of this research project was conducted based on the guidelines supplied by Myers (1997) who suggested the case study method will involve the following three stages of work.

1. *Determining the present situation:* in this study a comprehensive review of the literature on low cost airlines and theories of strategic windows and strategic management as well as Australia's international aviation policy and strategic window created by an open skies agreement with the EU.
2. *Gathering information about background to the present situation:* in this study achieved through the analysis of the history of longhaul low cost airlines and reasons for failure; the re-emergence of the carrier-within-a-

carrier strategy; Australia's approach to aviation liberalization over the past decade; and establishing airline cost data sourced from reliable sources.

3. *Presenting an analysis of findings and recommendations for action:* in this study achieved through determining whether long-haul low cost airline operations are feasible and viable between Australia and Europe, the competitive risks, and the production of the final research report.

To bind the scope of the study, the research problem is examined by the case study method that investigates whether a longhaul low cost/low fare airline could attain a cost advantage compared to full service airlines operating between Australia and the EU and what elements of the low-cost short haul airline model can be transferred to long-haul airline operations. In so doing, it satisfies the external validity design test (Yin 1994, p.41) by establishing the domain within which the study's findings might be generalised.

3.7.3 Research Instruments and Data Sources

The key characteristics of the research dataset can therefore be summarized as:

- Airline cost data sourced from reputable and reliable sources that enabled an analysis of two full service airlines operating from Australia to Europe and cost data for one other longhaul airline. Cost data is expressed as cost per available seat kilometre (CASK) which is the industry measurement and standard used in determining cost and used in comparisons between airlines.
- A sample of airline cost data based on sector length and overall high level airline cost data based on direct and indirect costs expressed as a percentage of total costs sourced mainly from IATA and ICAO.
- An analysis of the operational characteristics and marketing strategies deployed by low cost airlines extracted from an extensive literature review and confirmed from discussions with respondents interviewed.
- An understanding of Australia's international aviation policy, development and changes over a period of a decade and leading to the Australia - EU open skies agreement. This includes government white and green papers, a review by Australia's Productivity Commission and questions specifically

for the Director, Air Services Negotiations, Aviation and Airports Division in the DITRDLG.

- The accumulation of aviation articles drawn mainly from ‘Australian Aviation’, Australian Aviation Express, aviation features in the Australian newspaper, business pages and reports in the Australian Financial Review over a ten year period related to the study of interest with a focus on the low cost airline sector and developments of the carrier-within-a-carrier strategy.
- Airline quarterly, half-yearly and annual reports of the airlines of interest in this research both published in the public domain and reported in the financial section of major newspapers. Such reports report on key performance indices (KPIs) such as financial results, non-financial KPIs, a statement of cash flows, equity position, dividend declared, capital program and expenditure, key planning issues and assumptions.
- Other qualitative data emanating from airline analysts and airline economists on trends and performance of various airlines and airline costs; and aviation policy documents relating to government statements concerning international aviation and bilateral air agreements.
- Airline passenger data extracted from secondary sources to passenger numbers and destinations; airline traffic performance and airline share of traffic.

3.8 QUESTIONNAIRE DESIGN

For conducting in-depth, semi structured interviews it was decided to administer a set of prepared questions for the key informants. Not only does this act as a reference point, but also depending on how the interview progressed further questions and statements can be used to probe respondents to elicit wider discussion. Although questionnaires are not usually used to explore complex issues in great depth, or to explore new, difficult or potentially controversial issues, questionnaires can be used for longer, relatively unstructured depth interviews (Blaikie 2000). A well designed questionnaire requires thought and effort and needs to be planned and developed in a number of stages. It is important to be clear about the type and nature of information that is to be

collected and how the questionnaire will be administered Thorpe and Lowe 1991; Veale 1997).

It was decided that the best method to fulfill the objectives of the study a semi-structured questionnaire would be constructed. This method would enable questions to be expanded upon depending on how the interviews were progressing and used to elicit some additional information according to the responses given. For a study of this nature, open-ended questions were necessary because they can elicit a greater amount of information without being steered by the interviewer (Dillon *et. al.* 1993; Churchill 1996). However, open-ended questions are more difficult to sort and process because of the varied responses likely to be given. The researcher needs to look for common themes and cluster these into groups for interpretation of the information gathered.

The questionnaire sought to extract views and opinions to confirm the researcher's own views what the problems are with longhaul, low cost given its history of failure, the direction the airline industry is heading including the regulatory environment. The next set of questions asked respondents about the future for low cost/low fare longhaul between Australia and Europe given the strategic window opportunity created by open skies. Following these set of questions attention turned to determining what elements of the short haul low cost airline model are transferable to longhaul operations and respondents views about developing a longhaul, low cost airline model. In particular it was desirable to obtain factual views and opinions concerning Air Asia and Jetstar - the two airlines selected for case studies and reasons for their success.

Preliminary field work was undertaken in discussion with aviation experts at an Airport Development conference in 2007 and again in 2008, enabling the researcher to establish contacts for further follow up questions and respondent's willingness to be interviewed. Respondents were advised the working title of the thesis and justification for the study. The researcher knew a senior manager in Virgin Australia responsible for contracts and maintenance control for Virgin's longhaul operation. Virgin operates longhaul to the USA, Asia, South Africa and the UAE although as a three and four class airline strictly speaking it does not

fulfill the notion of a low cost product but Virgin is renowned for its attention to costs and hard negotiating approach with suppliers, contractors and airport companies. A former CEO of Brisbane Airport and a former KLM Dutch Airlines executive also proved beneficial. All the respondents were conversant with industry trends and contemporary issues and chosen because they could provide insights and perspectives. The main purpose of the interviews was to have the key informants talking about a particular issue and for the researcher to probe areas requiring further explanation. It was known that eliciting information directly from airlines especially when they are the subject of a case study could prove difficult. The researcher had encountered this problem previously in a study of relationship marketing and airline frequent flyer schemes. However, both Jetstar and Air Asia were willing to be interviewed with a time limit of 30 minutes maximum but would answer written questions by email as a follow up. Air Asia was quite open and forthcoming and helpful in providing access to reports such as five year plans, and quarterly and annual reports. Appendix 1 is the Research questionnaire used for the research.

3.8.1 Administering the questionnaire

Interviews were arranged in the offices of each respondent. Prior to the interviews it was decided to send each respondent a paper outlining the interviewer's area of interest and including data and comments for each respondent to consider prior to the actual interview. This method was used by Beaver (1996) in a study of airline relationship marketing schemes to obtain airline management opinions about the effectiveness of the schemes.

Each interview lasted for an average of one hour and some went longer except for the interview with Jetstar which was restricted to 30 minutes. The key informants were forthcoming with their comments concerning the likelihood of a low cost airline model being applied to long-haul operations. It was as if “where next for low cost airlines” having crossed a new frontier with medium haul operations. At each interview, the researcher made it known that he would like to tape the interview to ensure comments made were not overlooked or forgotten or could be retrieved later. This would also help overcome the problem of open-ended questioning and semi-structured interviews as it would ensure comments were

correctly captured for later analysis. Each respondent was asked if a subsequent telephone call or e-mail contact could be made for seeking further clarification of a point, or to ask an additional question. This became necessary given the evolving changes occurring within the airline industry as the thesis was being written. Several respondents were contacted on at least three separate occasions.

3.9 PERFORMANCE INDICATORS AND DATA ANALYSIS

The qualitative researcher must be able to interpret the data reliably. This process involved summarising the data to a temporary manageable length, identifying themes, analysing and assessing. The purpose is to look for meanings within the data and often relate findings to previous studies to see if these support existing research (Rea & Parker 1997). The main danger in interpretative data analysis is that interpretation is a personal process and researchers must be careful to distance themselves to a certain extent. However, as emphasized by Edvardsson (1992), it is not collecting the data that is the most problematic, but its interpretation and developing systems of classification. Thus, as stressed by Edvardsson (1992) a pre-understanding of the phenomena steers interpretation and an even greater understanding

Following the collection of data, it was reduced, that is converted into a form that lent itself to analysis (Miles & Huberman 1994; Blaikie 2000). The researcher himself had previously worked in the airline industry in a managerial and commercial capacity and more recently as a transport analyst, therefore an understanding of the industry and terminology used was invaluable in discussion with respondents. To develop a cost model and determine whether a longhaul low cost airline could attain a cost advantage compared to full service airlines, the costs for two full service airlines (Qantas and Emirates Air) was obtained from external sources and remodelled to an all one class economy configuration. The data was then further analysed to determine “differentials” where a low cost airline could reasonably be expected to apply typical cost reduction strategies applied by the low cost airline sector. As such a cost saving could be determined relative to full service airlines. The validity of the finding was verified by at least two external organisations for comment and authenticity with broad agreement to the approach taken and the result. A qualification was that there are more

variables in longhaul flying which requires a disciplined approach to flight management that impacts overall performance. Yin (1989) has referred to this task as *explanation building*.

3.10 STUDY PROTOCOLS AND ETHICAL CONSIDERATIONS

Although in-person contact was made with respondents at aviation conferences, a follow-up letter was sent to the prospective list of key informants to obtain their interest and approval to agree to an interview in their own office. The letter set out the purpose of the study and was accompanied by a letter from James Cook University to authenticate the importance of the study. The letter also served as an introduction of the researcher and that the work was private research. A list of all other prospective key informants was included. It was mentioned that although findings might be published, there would be no reference to specific individuals and their right to privacy would be assured (Fontana & Frey 1994) and that disclosures made or revealed were in an official capacity except where the official made it clear that he/she was not speaking in an official capacity. As stated earlier, this situation was encountered in dealing with government officials. From the initial approaches made to key individuals and their organisations, there was no objection raised concerning participation in the research.

3.11 RATIONALE AND JUSTIFICATION

The rationale and justification for the choice of various organisations selected is set out as follows:

1. The Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG).

The Aviation and Airports Division within DITRDLG is responsible for Australia's international aviation policy as well as aviation safety for all commercial airports in Australia. As such, the Department produces Australia's white and green papers on aviation policy in accordance with the Minister's wishes and based on what is in Australia's best interests. The Department guides the Minister in formulating policy direction.

2. The International Air Services Commission (IASC)

The Commission was established by the Commonwealth Government in 1992 to promote economic efficiency through competition in the provision of international air services. The role of the Commission is to determine the outcomes of applications by existing and prospective Australian airlines for capacity and route entitlements available under air services arrangements. In allocating capacity, the Commission assesses the merits of claims by applicants under specified public benefit criteria which are detailed in policy Statements issued from time to time by the Minister.

3. International Civil Aviation Organisation (ICAO)

ICAO is a Geneva-based United Nations organisation that produces high level airline data and airline performance including cost data compiled from airline reports. The researcher was able to subscribe to ICAO. data to obtain airline data used in the research.

4. Centre for Asia/Pacific Aviation Studies (CAPA)

CAPA is a Sydney-based organization founded by its Managing Director, Dr. Peter Harbison who had previous senior management experience gained with IATA. The Centre analyses commercial aviation performance and produces regular reports, updates, trends and statistical data primarily in the Asia-Pacific region for governments, airlines and airports. CAPA hosts an annual low-cost airline forum and has an award for excellence. The Centre is frequently referred to for media comment on aviation and is considered an authoritative organization widely respected for its analysis and views. The Centre also produces a weekly "Australian Aviation Express" which comments on airlines, airports, industry trends and current issues.

5. International Air Transport Association (IATA)

IATA is the authoritative body for most of the world's major airlines and reports high level statistics and data on a range of airline issues from traffic performance and forecasts by regions to industry profitability. IATA as the 'voice of the industry' is influential with governments and argues cases for the industry on issues affecting the industry ranging from airport security to carbon taxes to liberalisation policies.

6. The Australian Newspaper – Mr. Steve Creedy, Special Aviation Writer
Each Friday, “the Australian” publishes an aviation feature which brings readers up to date with current issues concerning aviation in the Asia-Pacific region. As a journalist, Mr. Creedy is able to obtain access to the senior executives in the Qantas Group and therefore material written is factual, not biased and contemporary.
7. Association of European Airlines (AEA)
The AEA is the key industry group for most of Europe’s national airlines. The organisation produces a wide range of reports and statistics on European airlines' performance including airline cost components and comparative data.
8. Boeing Airplane Company
The Seattle based Boeing Airplane Company produce reports on the state of the aviation industry and data relating to aircraft performance and cost analysis. For this research, a cost analysis undertaken by Boeing for a longhaul service based on low cost principles was used for comparative purposes.

3.12 CONCLUSION

This aim of this chapter was to consider the methodological issues relating to the selection of an appropriate research strategy and study design to address the research problem. After considering the research context, a range of research paradigms and strategies were considered from which it was concluded that the specific research questions could best be addressed by using a case study approach. The nature of the research is strategic and well suited to the case study method described in some detail in this chapter. A number of reliable and creditable secondary sources of data have also been identified for use in the research. The primary research was undertaken by conducting depth interviews with key informants. Key informants were selected because of their specialized aviation and airline knowledge and were able to verify and confirm the researcher’s own views about the myriad number of issues relating to the industry and in particular the objectives and questions related to this thesis. Considerable

data was analysed in particular material relating to airline costs inputs including comparative analysis. The research strategy is in accord with research criteria in the literature (Stewart 1993; Denzin & Lincoln 1994; Charmaz 1999; Blaikie 2000).

The resulting research design reflected both the limitation of data from specialized sources and the variety of research instruments to address the research objectives and questions (Table 3.4). Depth interviews of a semi-structured nature were deemed the appropriate method to understand the phenomena of interest and address the research problem. The design of the questionnaire used to gather data and the judgment sample selected are explained and rationalized. The semi-structured questionnaire enabled the issues the researcher wished to explore be confined to those specific to the study, but enabled respondents the opportunity to freely expand on questions posed by the interviewer and allow for additional questions to be asked. The adopted research design also reflected the evaluative and descriptive nature of the study. The nature of the research strategy determined that the findings would be based on analytical and statistical generalizations that have elements of sampling logic and replication for its validity.

Chapter 4: Case Study Number 1

Carrier-within-a-carrier strategy opens strategic windows for Jetstar

4.1. Introduction

The purpose of this case study is to examine the application of the strategic windows concept applied by Jetstar, a Qantas low-cost subsidiary airline. Jetstar exemplifies the strategic windows concept and CWC strategy applied by the Qantas Group through its subsidiary airline, Jetstar whose origins began in May 2004 as a low-fares domestic carrier operating “leisure routes”. The creation of Jetstar initially met with some scepticism from aviation writers and commentators. For example, Creedy (2003) observed that “low cost airlines do not sit well with full service, network airlines”. Considerable Qantas resources were dedicated to establishing the new carrier. The popular press suggested establishment costs of \$90 million which was denied by Qantas who stated a figure of nearer \$70 million (Qantas 2004). Its decision to acquire A320 Airbus (177 seats) aircraft gave Jetstar competitive advantages compared to Virgin such as better fuel efficiency, additional seats, lower unit cost per travelled seat kilometre and containerised baggage compared to loose stowage in Virgin’s Boeing 737s (CAPA 2005).

By early 2011 the carrier had migrated to operating international routes mainly to Asia and had operations based in Singapore and in New Zealand; operated both single and wide bodied Airbus equipment and had carried over 40 million passengers. The decision by Qantas to launch a new, low-cost airline was made at the Qantas Board Meeting in May 2003 when the then Chairman, Margaret Jackson announced that Qantas would launch a “two brands, carrier-within-a-carrier” segmentation strategy (Qantas Press Release, 31 May 2003). The driving forces behind the Qantas Board decision was the impact on market share of lower cost Virgin and legacy industrial relations agreements stifling Qantas to reform its business.

In December 2005, Jetstar operated its first international service when it took over the Trans Tasman Brisbane/Christchurch route from Qantas (Qantas Press Release, 2 November, 2005). In late 2006 Jetstar considerably expanded its international routes operating into north Asia (Japan) and south Asia (Indonesia, Malaysia, Thailand, Vietnam) as well as to Hawai'i. In October 2009 Jetstar added a Gold Coast/Auckland service and took over the Qantas code-share service with Air Pacific between Sydney and Nandi, Fiji (Australian Aviation Express, Issue No. 286, 7 September 2009). Jetstar's combined domestic and international operations as at December 2009 have carried over 40 million passengers (Jetstar 2009) and the carrier is now an important profit contributor to the Qantas Flying Brands business.

According to the Bureau of Transport, Infrastructure and Regional Development (BTIRE 2010) Jetstar is now ranked the 3rd largest carrier of outbound Australian travellers serving international routes to and from Australia and supports the Qantas Group remaining as the largest domestic and international airline group within Australia (BTIRE 2010). In a speech made on 1 August 2008 by the retiring CEO of Qantas, Geoff Dixon, on the future of Qantas, Dixon stated:

“Jetstar is going to be the key vehicle for Qantas's plans in Asia, a market where the new paradigm is most obvious and where we must find new ways to grow.”

Source: Australian Aviation Express Issue, No.183, 06 August 2007

The Qantas strategy exemplifies what Stahl and Grigsby (1997) defined in the strategic management literature; that is “*a pattern or apparent behaviour that emerges from a series of actions; a position or match between an organisation and a product-market area such as a product differentiation strategy*”. More specifically, the work of Tregoe and Zimmerman (1980) established a framework around “strategy” and created nine possible “driving forces” (see Table 4.1) although urged executives to base their strategic decisions on a single “driving force”. An in-depth analysis of the Qantas strategy would suggest that rather than a single “driving force”, all of Tregoe and Zimmerman's nine possible “driving forces” have influenced the successful formation of Jetstar as highlighted in the following table.

Table 4.1.1: Tregoe and Zimmerman’s “driving forces” related to Qantas strategy

Tregoe and Zimmerman’s “driving forces”	Elements implemented by Qantas/Jetstar
Products offered	Two brands strategy - Jetstar is a “no frills”, budget airline. Customers pay for ancillary charges
Market needs	Tourists, leisure travellers and VFR – low fares, basic service, point-to-point operations
Technology	Jetstar has widely embraced new technology, for example, automated check-in; i-phone; Wi-Fi
Production capability	One aircraft type for domestic routes Purchase/lease new aircraft – save on maintenance
Method of Sale	Encourage on-line bookings direct by-passing travel agents (commission saving), high use of web
Method of Distribution	Internet and Web, now extending to “social media” Less reliance on travel agents
Natural resources	Adopt policies to not harm the environment Developed own cadet flying school to then draft qualified pilots into airline
Size/Growth	Domestic and international expansion within first five years. From initial 14 aircraft to now over 40 aircraft and has carried more than 40 million passengers
Return/Profit	Major contributor to Qantas Flying Brands

4.1.2 Qantas Group Strategy and the Literature

The Qantas Group actions comply with Stahl and Grigsby’s (1997) such as a product-market area and product differentiation strategy in which one airline group covers the diverse market with different airline products and different price points reflecting service levels. Rather than any one dominant driving force as suggested by Tregoe and Zimmerman (1980) in order to compete, strengths are required across a diverse number of driving forces. Mintzberg (1994) argues that strategy emerges over time as intentions collide with and accommodate a changing reality. One might start with a perspective and conclude that it calls for a certain position, which is to be achieved by way of a carefully crafted plan, with the eventual outcome and strategy reflected in a pattern evident in decisions and actions over time. This pattern in decisions and actions defines what Mintzberg (1994) called "realized" or emergent strategy and Mintzberg’s “changing reality”

definition. A plan was crafted – segment routes according to predominant type of traffic, lower unit operating costs and the outcome evidenced over time through revenue and profit growth, route expansion and a focus on cost reduction strategies.

The 'planned approach' places emphasis on a long term, highly systematic and deterministic process of strategic planning and aims at achieving the best "fit" between the organization and its environment. In Quinn's (1978) "logical incrementalism" approach cited by McKiernan (2006), Quinn (1978) claimed that strategic management involves guiding actions and events towards a conscious strategy in a step-by-step process. Quinn's (1978) "guiding actions" are taken a step further by Markides (1999) who describes strategy formation and implementation as an on-going, never-ending, integrated process requiring continuous reassessment and reformation. Thus, Qantas' planned strategic approach is in accordance with the strategic management literature wherein its "strategic window opportunities" have evolved rationally in response to changes in the environment such as the intensity of competition, pressure to reduce costs, labour market changes, aviation liberalisation and technological advancements.

4.1.3 Methodology and Structure

Research obtained to construct this case study has been derived from newspaper clippings, aviation publications, annual and half yearly Qantas Group reports and interviews with senior executives of Jetstar, the Sydney-based Centre for Aviation Studies and Airbiz. The researcher's collection of material since 2003 allows the construction of case study as a legitimate research strategy based on content analysis or described by Yin (1994) as "situations in the making" over a period of time. Content analysis builds a solid foundation of evidence-backed research and can chronologically record strategic decisions and outcomes taken by firms at different points in time. For this purpose, a weekly online "Australian Aviation Express" was subscribed to by the researcher to monitor and track Jetstar and other aviation developments in the region. Studies of the aviation industry rely extensively on strategic and statistical analysis that are "case building" which therefore places such research in the "existing theory" category of research rather than "theory building" as the basis for developing explanation. Specifically, the case study approach offers a 'bounded system' within which to examine the

research problem (Gummesson 1991; Blaikie 2000; Stake 1995). As such, it is well suited to illuminating a decision, or set of decisions and explaining why they were taken, how they were implemented, and with what result (Yin 1994). In essence, case study analysis is fundamentally “outcome evaluation” (Stake 1995) and have what might be termed 'face-value credibility'. That is, they can be seen to provide evidence or illustrations with which some readers can readily identify.

The structure of the case study is as follows. The case study analyses and discusses the application of the strategic windows concept by Jetstar and its emergence from purely domestic routes to becoming an international airline operating larger twin-aisle, two-class aircraft to expected route entry into southern Europe created by the Australia-EU agreement and the expansion of Jetstar to counter increasing competition in the market. There is some discussion relating to the signing of a strategic alliance agreement with Air Asia which is less traditional than most alliance agreements. The financial results are shown to highlight the increasing importance and contribution by Jetstar to the Qantas “Flying Brands” business. A summary completes the case study and suggests there is scope to update the airline strategic management literature in particular to bring in to sharper focus given that the carrier-within-a-carrier strategy now being adopted in Asia-Pacific by some of the world’s major airlines.

4.1.4 Jetstar and Strategic Window Opportunities

Domestic market “leisure routes”

Jetstar has been able to grow its business by largely replacing or complementing Qantas mainline services especially to tourist destinations. For example, the Queensland holiday market attracted Jetstar services to no less than eight Queensland destinations from Coolangatta on the Gold Coast to Cairns in Far North Queensland. By early 2010 Jetstar operated to 19 Australian domestic destinations that include 14 destinations along the Australian east coast – see Whyte and Prideaux (2009) who wrote on the impact of low-cost airlines on Queensland tourism. Significantly, Jetstar has grown to be almost four times its size and within the next five years, it is expected to be ten times its current size. Between May 2004 and December 2009 Jetstar has carried more than 35 million domestic passengers and holds an estimated 16% market share. Its load factor

across its domestic network, the measurement of the number of seats occupied as a percentage of total capacity was 81.8% for 2009. Capacity increased by 6.8% while passenger volumes while passenger volumes increased by 0.4 per cent (Australian Aviation Express, Issue No.306, 15 March, 2010).

Jetstar enters international markets

Jetstar's expansion into international markets further exemplifies the application of strategic windows. Emboldened by its success in the Australian domestic market, Jetstar's first incursion into international routes was a Brisbane to Christchurch service in December 2006 replacing a Qantas service. In some respects this was an acknowledgement by Qantas that the Trans Tasman market was an extension of the domestic market and the predominance of leisure traffic. This market extension strategy – taking a domestic product and extending it into an international market without change (Fletcher and Brown 2002) was aimed to reduce cost and retain competitiveness. In 2007 Jetstar's international expansion took on much greater significance with services from Australian airports to Asian destinations as well as to Hawai'i (Australian Aviation Express 2007). The strategic window was created by Qantas substituting services with the Jetstar product for predominantly leisure orientated traffic. For Jetstar, this meant graduating from operating a single aisle, one class service to a twin aisle A330 with 301 seats including 16 'Star' class seats – a sort of pseudo business class. The move into Asia was not only a major strategic shift but also operationally and marketing especially taking a new brand into a new market. It also placed Qantas more competitively against Asian carriers that had lower costs. Further route expansion included Fiji (Nadi) in March 2010 and an Auckland (New Zealand) to Gold Coast service a month later. Commenting on this capacity expansion, the CEO of Jetstar, Bruce Buchanan said "Australians are continuing to travel overseas in record numbers – a record 5.8 million Australian residents travelled overseas for the year ended June 2009, more than half of which were holidaymakers."

Further examples of the application of strategic windows concept in regards to low-cost operations by the Qantas Group can be found. For example, Qantas acquired a 24% shareholding in Vietnam's Pacific Airlines which has been re-branded as Jetstar Vietnam and in mid 2009, Jetstar took over Qantas Jet Connect

domestic services in New Zealand in a move designed to reduce costs and bring a low cost airline into New Zealand's domestic market although only four airports are served – Auckland, Wellington, Christchurch and Queenstown. Moves to align and integrate some services with its parent owner began when in September 2009 Jetstar began a code-share agreement on Qantas flights to Mumbai (Australian Aviation Express, Issue No.288, 21 September 2009). These strategic manoeuvres demonstrate Jetstar's flexibility and agility to be able to identify new opportunities in different markets whether in Australia, New Zealand, or Asia in both short haul and medium haul markets and to implement plans and strategies.

On 28 January 2011 Jetstar announced it was seeking traffic growth of 30 per cent in 2011 in Asia and Australasia as a consequence of a new marketing agreement with the powerful One World alliance (Creedy 2011a). David Koczkar, Jetstar's Chief Commercial Officer informed the researcher that China was the core of its pan-Asian strategy with capacity from the airline's Asian hub, Singapore.

4.1.5 Jetstar plans to enter southern Europe

On 19 October, 2009 the CEO of Qantas gave the Group's first public indication of Jetstar's planned entry into Europe when he stated the following:

“ With Jetstar taking on additional A330-200s, it could allow Jetstar to launch one-stop services into southern Europe, particularly to cities such as Rome, Milan and Athens. “With the big Italian and Greek communities here, there is a big visiting-friends-and-relatives market,” said Joyce.

Source: Australian Aviation Express, Issue No.292, 19 October 2009.

Jetstar CEO, Bruce Buchanan added that design changes to newer A330s gave it a greater payload capability to operate to southern European ports without any passenger restrictions on the aircraft. At the same time, the Qantas order for the long delayed Boeing 787 indicated that Jetstar would receive about half of the 45 new aircraft to enable the airline to fly longhaul and more economically than any other aircraft. A series of on-going problems has meant the 787 will not be delivered until 2013. In effect the design changes to the A330 and more particularly the lesser capacity Boeing 787 will enable the Qantas Group to turn its attention to markets such as Greece and Italy and possibly a second gateway in the UK. More importantly, Qantas needs to redress a loss of market share to Gulf State airlines.

In an interview conducted with Jetstar's Chief Commercial Manager, David Koczkar on 18 June 2010 the carrier's expansion plans was a topic of discussion and how close Jetstar was to operating a service between Australia and Greece and Italy. Jetstar intimated there were several issues they were working their way through such as aircraft availability, crewing and whether Jetstar Asia would operate the service from Singapore with connecting services from Australia. Jetstar also stated they were still considering the market and whether it is a large enough to be viable.

Whilst Koczkar did not wish to elaborate on the carrier's specific plans he did state that Greece and Italy were in the company's forward plans. The issue was aircraft performance (range) and intermediate technical stop for refuelling. Singapore was now the preferred intermediate point because it could mean operating an aircraft based in Singapore and with cabin crew seconded from Jetstar Asia. Koczkar acknowledged that longhaul posed more operational issues on the airline than medium haul into Asia. Breakeven was an important issue and Jetstar seeks positive earnings at the early stage of new routes it enters. Koczkar thought that an 80 per cent load factor would be necessary but obviously this is influenced by demand and price. This compares to full service airlines that aim for a mid 70 point load factor. Koczkar gave some insights into the carrier's expansion plans within Asia, especially China where Jetstar saw strategic window openings on routes with sector flight times between four and five hours.

4.1.6 The Centre for Asia Pacific Aviation Studies comments

In an in-depth interview with the Centre's Executive chairman, Dr. Peter Harbison with the researcher, a number of semi-structured questions were posed seeking expert comment and opinion. Dr. Harbison stated it was becoming clear from Qantas announcements and financial reports the airline's international business was under pressure from the effects of rising costs – mainly in fuel, static or falling yields, and competitive pressure from airlines with a lower cost base. Dr. Harbison considered Qantas would have to rely more on Jetstar for its growth and retention of market share to survive the threat from Middle Eastern (Gulf State) airlines. Dr. Harbison believed it was inevitable that Jetstar would launch services into southern Europe to both complement the Qantas full service brand and to fill niche markets the carrier cannot currently compete for but thought that the Asian

market was increasingly becoming the core focus of future Jetstar expansion. Dr. Harbison was of the opinion that Jetstar would enter more collaborative arrangements with not only Qantas but with other carriers where similar synergies existed and benefits accrued to both partners through scheduling, handling and even marketing such as distribution.

When questioned about cost differentials between a full service carrier and a low-cost carrier, Dr. Harbison stated that modelling done by his organisation suggested that there were areas where savings can be made but the differential for long-haul operations compared to short-haul was not as great. Dr. Harbison identified that some savings in direct operating costs could be attained especially if new generation, fuel-efficient aircraft are operated and other areas such as crew costs, ground handling and contracting out of services. Dr. Harbison believed Jetstar had learned much from its introduction of services to Asia and that this would provide the platform for further longhaul expansion.

To questions concerning aviation policy and open skies between Australia and Europe and whether any European airlines would initiate new services to Australia, Dr. Harbison believed there was a “yawning chasm” between what aviation policy-makers aimed for and commercial reality. Whilst Australia supports liberalisation moves that reflects the country’s “end-of-line” geographical position, Dr. Harbison thought European carriers would be hesitant to avail new opportunities despite open skies. He noted that there had been a steady retraction of European carriers withdrawing from Australia over the past decade. When questioned further about open skies enabling an EU carrier to operate from any country within the zone, Dr. Harbison thought it was wishful thinking on the part of policy-makers noting that despite EU liberalisation there was no rush of airlines trying to enter the long haul markets of other carriers but rather EU full service airlines were absorbed in countering competition from low-cost carriers for intra-European travel and going through a period of consolidation. When questioned about Singapore Airlines’ plans to launch a longhaul low cost airline (Scoot), Dr. Harbison thought that Singapore Airlines had left their decision a bit late. This was in reference to Air Asia’s already established longhaul services and the competition coming from Gulf State

airlines. Subsequent to this interview, Air Asia has abandoned its longhaul services to London, Paris, Mumbai and New Delhi. This is discussed in the next case study which examines Air Asia.

4.1.7 Financial Results

On 18 February 2010 Qantas released its half year results for the 2009-10 year. The Group reported a \$58m profit following a second half loss of \$107m in the previous financial year. The airline was profitable across all operating segments with Jetstar again an outstanding performer. Jetstar tripled its underlying earnings from \$43m to \$121m on an 18.1% increase in revenue to \$1131m partly as a result of route expansion but a reflection of its cost containment and low cost per available seat kilometre compared to its full service parent owner. The Qantas Group Financial Summary 2004-2009 is shown as follows:

QANTAS GROUP Financial Summary 2004-2009

AUD						
	2004	2005	2006	2007	2008	2009
Income Statement \$M						
Net passenger revenue	8,978	9,835	10,504	11,912	12,709	11,604
Net freight revenue	470	760	888	903	959	764
Tours and travel revenue	140	144	128	126	124	223
Contract work revenue	503	485	469	434	454	426
Other	692	861	1,067	1,150	1,381	1,535
Total revenue	10,783	12,085	13,056	14,525	15,627	14,552
Manpower and staff related	2,939	3,245	3,322	3,335	3,533	3,684
Aircraft operating variable	2,227	2,436	2,525	2,616	2,608	2,834
Fuel	1,356	1,932	2,802	3,337	3,701	3,602
Selling and marketing	466	444	470	503	755	632
Property	310	301	320	351	346	402
Computer and communication	439	492	488	527	382	406
Capacity hire	287	341	370	303	276	274
Ineffective and non-designated derivatives	-	-	-	122	55	-105
Other	412	365	467	652	768	765
Total Costs	8,435	9,555	10,764	11,746	12,424	12,494
Profit before tax						
	965	1,027	671	1,032	1,408	181
Profit after tax	649	764	480	720	970	123

4.1.8 Jetstar forms strategic alliance with Malaysia's Air Asia

On 7 January 2010 the Australian media reported a major cost-saving agreement between two of Asia's largest low-cost carriers, Jetstar and Malaysia's Air Asia

(Easdown 2010). The announcement triumphed the potential cost savings in operating costs as the carriers would pool their expertise and buying power and share synergy benefits of up to A\$300 million within 16 months of the agreement taking effect. Jetstar's CEO, Buchanan and Air Asia CEO Fernandez stated that the cost benefits would arise from jointly operated passenger and ramp handling services, sharing inventory and drawing replacement parts for both carriers (Australian Aviation Express, Issue 301, 18 January 2010). The agreement was noteworthy for the cooperative position both airlines would be seeking for next generation of aircraft such as more doors and an undercarriage rugged enough to withstand more landings and take-offs than conventional jets. What makes this agreement different to most airline strategic alliances is that its emphasis is on airline technical, engineering and operating characteristics rather than joint marketing strategy. It also suggests that despite the two airlines differences that cooperation in these areas may be more crucial for LCCs to expand into longhaul markets. Whilst the Jetstar - Air Asia alliance is different to the typical airline alliances (there is no equity arrangement) and code-sharing arrangements adopted by full service, network airlines, it might suggest that low-cost airlines may seek to emulate major airlines with some loose form of cooperation and consolidation.

4.1.9 Summary

The development and growth of Jetstar conforms to the well established frameworks of the strategic management literature and exemplifies the application of the strategic windows concept. From its inception to its present day position the carrier-within-a-carrier strategy implemented by Qantas has defied the earlier critics of such a model and has proven to be successful in domestic and international markets. Jetstar's development and growth is in accord with Tregoe and Zimmerman's (1980) nine possible "driving forces" and McKiernan's (2006) four key frameworks - the planned approach, logical incrementalism, outside-in analysis and inside-out analysis. Jetstar fulfils at least two of these frameworks and arguably all four. First, from an analysis of the external environment and the forces within the environment a *planned approach* has been applied by Qantas in the creation of Jetstar and strategic choices/decision-making on route entry. The '*planned approach*' places emphasis on a long term, highly systematic and deterministic process of strategic planning and aims at achieving the best "fit"

between the organization and its environment. In this regard the demand for a “no frills” type of domestic airline service had become apparent following the rapid rise and market acceptability of Virgin Blue. Second, *logical incrementalism* has been applied in the manner in which Jetstar has emerged from purely a domestic carrier into an international carrier and has gradually added complementary services on routes operated by Qantas.

The expansion of Jetstar services to international destinations is McKiernan’s (2006) “*logical incrementalism*” based on segmentation principles and combating aggressive competitors with lower costs than Qantas. International expansion has been premised on the basis of what works domestically can be applied internationally. Jetstar’s growth over a five year period has been rapid but it has been a response to changing competitive and market conditions and new opportunities arising from aviation liberalisation. Jetstar’s expansion demonstrates that a low-cost, low fare airline with the strategic resources of a strong parent airline behind it could expand to medium to longhaul routes quite seamlessly.

Third, the outside-in analysis and inside-out analysis could be said to apply as Jetstar executives evaluate markets and new opportunities based on the strategic capabilities of the airline matched to the strategic window opportunities presented. Jetstar displays flair, imagination, agility and flexibility and has demonstrated how it applies the strategic window concept. Jetstar also conforms to Treacy and Wiersema (1995) who studied the discipline of market leaders (the Qantas Group is market leader in the Australian domestic market and market leader for all outbound travel from Australia, BTIRE 2010). Jetstar is an important part of the “Qantas Flying Brands” business and its success has defied the earlier criticism of CWC strategy discussed in Chapter 2. However, CWC strategy is not a panacea for all airlines. Each airline needs to consider its own markets, operating environment and extent of competition and its own costs. In many respects there are too many airlines in the world in an industry notorious for its deep and accumulated losses.

Chapter 4: Case Study Number 2

Air Asia and the Strategic windows concept

4.2 Introduction

Air Asia is an outstanding example of examining an airline through the strategic windows concept. Air Asia complies with the principles of the *strategic windows* concept when the fit between the key requirements of a changing market and the skills and resources of an organisation are at an optimum. From its small beginnings a decade ago Air Asia has become Asia's largest low-cost airline and now operates an extensive regional network within 4-5 hours sector flight time out of its Kuala Lumpur base. The airline also operates longhaul services utilising wide-bodied aircraft as Air Asia X to London Stansted and to Paris Orly. Air Asia X – a subsidiary airline of Air Asia, operates from Kuala Lumpur to three Australian gateways – Perth, Melbourne and the Gold Coast and on 3 April 2011 the carrier began services from Kuala Lumpur to Christchurch, New Zealand (Flight Centric 2011) which is expected to attract 70,000 new visitors over the next five years. Air Asia X continues to seek new opportunities arising from aviation liberalisation both within Asia and in longhaul markets such as to the USA and other Australian gateways. The airline has established franchise operations in Thailand and Indonesia with the support of local investment.

The key to the airline's success is its low unit operating cost compared to all other airlines (CAPA 2009). Air Asia is tightly managed but encourages employee input and ideas, is innovative and places a strong emphasis on developing business cases and plans but not all of its plans have been successful. When the carrier set up services from Kuala Lumpur to Abu Dhabi with a view to creating a new hub in the Middle East and attracting Muslim traffic, its loads were poorly supported forcing the carrier to suspend the service (CAPA 2009). Given the carrier's rapid growth and financial performance it is surprising that it has not attracted greater academic attention from researchers.

A key difference between Air Asia and most LCCs is that the carrier is not merely reliant on leisure travellers but has been able to grow its business by capturing a share of the business market especially on highly trafficked short haul routes such

as Kuala Lumpur/Singapore where it offers a high frequency. The success of Air Asia contrasts markedly with government part-owned loss making national airline, Malaysian Airlines which has reduced or withdrawn services and restructured. Air Asia is now a major threat to the larger, mainly government-owned Malaysian Airlines because of its business model, rapid growth, entrepreneurial management and innovation, low cost base and low fares. Thus, the aim of this case study is to examine how Air Asia has applied the strategic windows concept and to fill a void in the literature.

Air Asia operates to 65 destinations with a fleet size of 86 aircraft and has orders for delivery of a further 136 aircraft to 2013. Air Asia has established three Malaysian hubs – Kuala Lumpur, Penang, and Senai Airport in the southern state of Johore. The carrier employs over 3,000 employees with annual revenues exceeding \$70 million (Air Asia Press Release, November 2009) carrying 25 million guests in FY2009-10 (Air Asia Annual Report 2010). Its longhaul business is franchised and operates as “Air Asia X” of which Virgin’s Sir Richard Branson acquired a 20 per cent strategic shareholding (Thelwell 2007). In early 2010 Air Asia entered into a non-equity alliance agreement with Qantas’ low-cost subsidiary airline, Jetstar to achieve reduced costs and increased efficiency (Easdown 2010; Jetstar Press Release, 6 January 2010). In August 2011 Air Asia agreed to a share swap with part state-owned Malaysian Airline System in order to strengthen both carriers position against Singapore Airlines especially on long haul routes (Bloomberg 9 August 2011).

4.2.1 Air Asia Business Model - Key Success Factors

Air Asia complies with the key characteristics that typify a low cost airline as identified in the literature. Its cost reduction strategies include the following:

- High aircraft utilization (13 hours per day)
- Fast turnaround time (25 minutes)
- 180 seat one-class A320 aircraft with a narrow seat pitch (Air Asia X does offer a limited number of premium seats on its longhaul A330 and A340 services)

- A lean distribution system with a high percentage of sales transacted through Net bookings
- Basic amenities used at airports and use of secondary airports
- Point-to-point network with no interline arrangements or transfers
- No administration cost in operating a loyalty program or frequent flyer scheme
- Ancillary charges levied on passengers for food, beverages, in-flight entertainment and checked baggage
- Flexible workplace arrangements and high productivity per employee
- Contracting out of services to be volume variable

Sources: compiled by the researcher from Air Asia Annual Reports, Five Year Business Plan and interviews.

The evolutionary changes leading to strategic window openings for Air Asia include liberalisation of aviation policies within Asia; government policy on landing rights to allow new point-to-point services to become established; the Malaysian government desire to have a low fare airline to foster new tourism and to make air travel more affordable, and adopting services on routes that full service, network airlines have ignored, or do not expect to be profitable.

Figure 4.2.1 illustrates Air Asia's cost breakdown comparing the first Quarter of 2008 against the first Quarter of 2009. The significant factor is Air Asia's low overall cost expressed as 'cost per flown seat kilometre'. The Centre for Asia Pacific Aviation Studies (April 2009) noted that Air Asia's cost structure at US 3.5 cents per seat kilometer would be amongst the lowest, if not the lowest of any scheduled airline operating in the world.

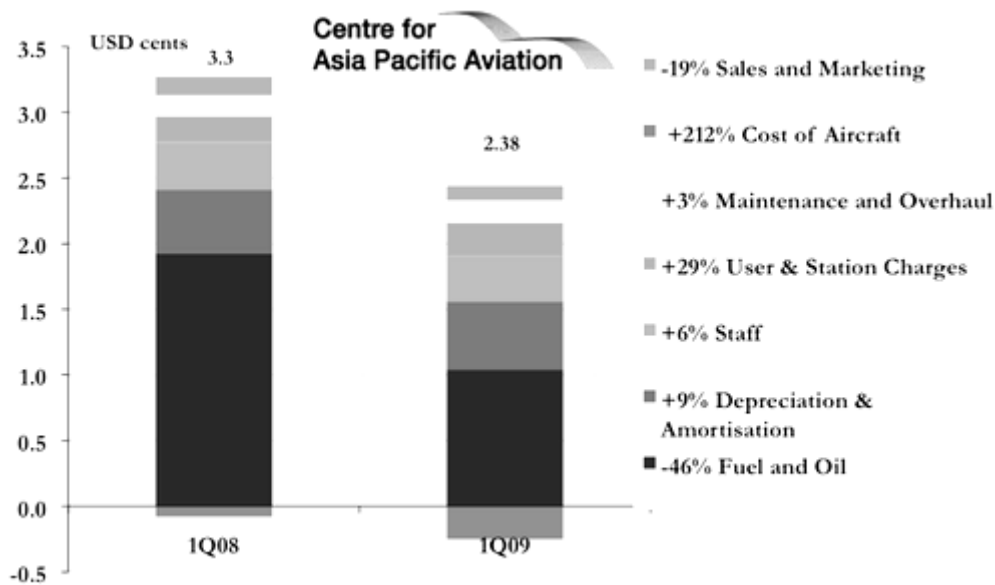


Figure 4.2.1: Air Asia cost breakdown.

Source: Centre for Asia Pacific Aviation Studies Report on Air Asia, April 2009.

In the context of this research, the literature on Air Asia is limited. Ong and Tan (2009) undertook a study of departing passengers at Penang International Airport to examine the determinants of airline choice between incumbent Malaysia Airlines and low-cost Air Asia that found behavioral factors such as concerns over schedules and fares, routes, booking methods and purpose of journey are predictors of airline carrier choice. However, this research only considered airline choice factors and only at one airport. Ricart and Wang (2005) explored Air Asia's competitive advantages, its expansion strategy in a case study of the carrier's Pan-Asia plan. This research advances this work as it updates the execution of Air Asia plans discussed by Ricart and Wang (2005). Howell (2009) analysed the human resource issues in Air Asia and how it has built a team in developing what he termed "Air Asians". The most comprehensive study in recent times has been work undertaken by the Centre for Asia Pacific Aviation who in 2009 concluded the airline had solid fundamentals, showed impressive revenue growth but cautioned that aircraft financing costs, rising fuel prices and over expansion leading to capacity growth were weaknesses (CAPA 2009).

4.2.2 Methodology and Structure

Research obtained to construct this case study has been sourced from a number of various sources that includes reputable transport and aviation sources both

government and private as well as from Air Asia. This includes Air Asia Annual and Quarterly Reports provided to the researcher by Air Asia as well as a public version of two of the carrier's Five Year plans. Reports and data have been obtained from the Australian government Canberra-based Bureau of Infrastructure, Transport and Regional Economics (BITRE) and information obtained from the Aviation Branch of Malaysia's Department of Transport. In addition, the researcher attended an Air Asia Annual Meeting held in the Gold Coast in October 2009 (this coincided with the carrier's launch of a new Gold Coast/Kuala Lumpur service) where an interview lasting 20 minutes was obtained with the airline's chief financial officer, Azran Osman Rani. Two separate interviews over a 17 month period were conducted with the Sydney-based Centre for Asia Pacific Aviation Studies relating to the low cost airline industry and in particular the growth of Air Asia. The Centre had completed a major review of Air Asia in 2009 and was able to release information pertaining to the airline for use in this research.

The structure of the case study is set out as follows. The origins of Air Asia are backgrounded and Malaysian government objectives. This is followed by a short section on aviation liberalization occurring within Asia which acts as a catalyst for carriers such as Air Asia to exploit its low cost model for competitive advantage. The the airline's key success factors and its cost advantage are next discussed followed by its business mission and five year plans which seem integral to the airline's success. This includes the airline's expansion plans and the emergence of Air Asia X, a franchise of the parent airline, entering longhaul routes which are important in the context of this research. In August 2011 Air Asia and the government owned airline, Malaysian Airlines undertook a share swap bringing the two airlines closer together. This is briefly discussed. The case study is concluded with Air Asia's financial performance.

4.2.3 Origins of Air Asia

According to the Aviation Branch of Malaysia's Department of Transport, the origins of the airline can be traced back to 1993 when a Malaysian government-owned conglomerate DRB-Hicom took over the Malaysia Airlines' rural air services routes in Sabah and Sarawak operating under the Fly Asian Xpress brand. On 2 December 2001, the heavily-indebted airline was purchased by former Time Warner executive Tony Fernandes's company Tune Air Sdn Berhad for the token sum of one ringgit (Aviation Branch, Malaysian Department of Transport, 2003). Although Fernandes had no previous airline experience, he set about restructuring the airline and recruited some of the best low-cost airline executives to restructure Air Asia's business model (Air Asia Press Release, 2002). Initially, the airline operated with three Boeing 737s later switching to the slightly larger A320 (180 seats) and made a profit one year later (Air Asia 2001-02 Annual Report). The original rural routes were handed back to Malaysia Airlines subsidiaries Firefly and MASwings in August 2007 (Aviation Branch, Malaysian Department of Transport, December 2007).

4.2.4 Malaysian government objectives

The Malaysian government's political objectives were to establish a no-frills, budget airline offering affordable low fares for regional travel and to stimulate travel for economic benefits (CAPA 2006). In 2004 the Malaysian government provided its support in agreeing to build a new budget terminal, separate from the main terminal at Kuala Lumpur International Airport to accommodate the expanding number of passengers using Air Asia (Aviation Branch, Malaysian Department of Transport, 2003). The separate terminal was the first of its kind in Asia and opened on 23 March 2006 at a cost of RM108 million (AU\$34 million). The terminal spans some 35,000 square metres and can handle 10 million passengers per annum. Malaysian government strategy also extended to developing Senai Airport in the state of Johore Bahru in southern Malaysia primarily as a hub for Air Asia to rival Singapore. However, attempts to attract Singaporeans across the causeway to take advantage of low fares gained the ire of the Singapore government whose Land Transit Authority intervened and would not grant a bus license (Singapore Land Transit Authority 2004).

4.2.5 Liberalization policies

The Asian region has been one of the last regions in the world to embrace liberalization with so-called 'soft' liberalization policies so termed to reflect the measured opening of new routes to new entrants that have either been ignored or overlooked by national carriers (CAPA 2006a). In 2004 a policy shift was announced by the Association of South East Asian Nations (ASEAN) titled "the 2004 Roadmap for the Integration of Air Travel Sector" (RIATS) that provides for the liberalization of air traffic for all international airports of member countries (ASEAN Press Release, 2004)). This agreement was ratified by all 10 member countries in Singapore in 2007 as the effects of soft liberalization had resulted in a greater choice for travellers travelling at lower fares and stimulating tourism and with it employment within the region. A major obstacle inhibiting liberalisation has been government protectionism of national carriers in the region (CAPA 2009). The final objective is an ASEAN single aviation market by 2015 with full liberalization for passenger and air cargo services (ASEAN Press Release, 2007).

4.2.6 Business Mission and Five Year plan

On 27 December 2006 Fernandes unveiled a five year plan to further enhance Air Asia's presence in Asia ("Now Everyone Can Fly Air Asia: 5 Year Plan, December 2006). The plan was to strengthen and enhance the carrier's network by connecting all the existing cities in the region and expanding further into Indo-China, Indonesia, Southern China and India and to become Asia's leading low-cost/low fare airline concentrating on routes within 3-4 hours flying time (Air Asia Five Year Plan, 2006). Air Asia has set out to have the lowest seat cost per operated kilometre of all airlines and strictly adheres to the principles of low-cost airline operations. An advantage the airline enjoys is its low labour cost and non unionized labour including its pilots compared to western countries; its low overheads; avoidance of expensive airports and facilities it does not require; and reduced distribution costs as the airline encourages direct bookings rather than through travel agents thus avoiding commission payments and servicing costs.

This section analyses the rapid growth of Air Asia in terms of the strategic windows concept linking the achievements of the airline to the literature. Five key areas have been selected, namely:

1. Corporate culture and performance
2. The recycling of routes abandoned by struggling rivals
3. The introduction of longhaul services
4. Market penetration into the corporate market
5. Expansion plans

Each of these areas is analysed as follows.

Corporate culture and performance

From its inception its incoming CEO, Fernandes brought in a different culture into the airline. Fernandes himself played a “hands-on” role and had a direct connection with staff and operations that allowed him to make effective and dynamic decisions (Howell 2009). For instance, Air Asia seeks people who are “fun, friendly, smart, caring and innovative”. Howell (2009) has observed how Air Asia hires without prejudice which has included hiring female pilots and rewards talent. The airline encourages creativity and innovation. Offices are open plan and ideas are actively shared and communicated. For example, Air Asia has the fastest turnarounds of any carrier in the industry – 25 minutes (Howell 2009).

The recycling of routes abandoned by struggling rivals

In a difficult operating and trading environment beset by record high jet fuel prices in which FSAs abandoned routes or were reluctant to operate high capacity regional jets to new destinations, Air Asia was able to exploit this situation with its low cost base and business model coupled with its low fares to stimulate demand.

The introduction of longhaul services

Air Asia entered the longhaul market when it inaugurated a four times a week service between Kuala Lumpur and London Stansted (north of London) in March 2009 with a leased A340 aircraft (Australian Aviation Express, Issue No. 282, 10 August 2009). Stansted was already an existing low cost airline airport and in choosing Stansted, Air Asia could avoid the high cost airports Heathrow and Gatwick and associated congestion. Air Asia determined that it would offer only an end-to-end service and was not seeking to fly into a hub airport to transfer passengers. To differentiate the carriers Asian operations from its longhaul operations, the longhaul operation has been franchised and termed Air Asia X.

Air Asia's entry into the United Kingdom came at a time when traffic has declined since 2005. In the 1990s the UK to Malaysia market grew rapidly from 185,000 annual passengers in 1990 to over 660,000 in 2000. According to Air Asia's Quarterly Report issued in April 2009, between 2000 and 2005 the market was relatively stable but since then it has fallen significantly to just 400,000 passengers in 2008 (Air Asia Quarterly Report, April 2009). With Kuala Lumpur as a main hub, Air Asia's marketing strategy is to connect traffic from its wide network of feeder services including traffic from its three Australian gateways for on-carriage to the United Kingdom (Air Asia 2009-2014 Five Year Business Plan).

Expansion plans- Air Asia X

To expand into longhaul services, Air Asia established an associated franchise company Air Asia X in 2007 and operated its first longhaul service non-stop from Kuala Lumpur to the Gold Coast, Australia on 2 November 2007 using a leased A330 Airbus (Air Asia Annual Report, 2007). The Gold Coast is a designated regional international airport and the Australian government objective is to encourage new entrants into regional international airports (Australia's "White Paper" on International Aviation Strategy, November 2009).

By early 2010 Air Asia operated six times per week into the Gold Coast and had added a fourth weekly service to Melbourne as well as adding Perth to its Australian gateways (Aviation News, CAPA, January 2010) claiming increased demand that had seen passenger traffic grown by 15 per cent. Services to and from Melbourne and Perth are in direct competition with Malaysia's national airline, Malaysia Airlines. Finally, in early 2012 the airline obtained landing rights to Sydney after being prevented by the Malaysian government.

Air Asia X expansion plans typifies the carrier's bold forward thinking strategy. Air Asia has identified that with many cities in Asia having a population of more than 1 million with China and India's collective population totalling more than 3 billion there are opportunities for low-cost carriers to enter new city pairs not served by full service airlines (Air Asia SWOT Analysis – 5 Year Business Plan 2009-14). The urbanization and growth of the middle class population in Asia and rising discretionary income and a desire for travel would be attractive factors for

airlines operating in the Asian market. According to Air Asia's Five Year, 2009-14 Business Plan, it has planned for up to 25 A330-300 aircraft by 2013 to operate its longhaul network (Air Asia 2009-14 Five Year Business Plan). Air Asia X is looking to increase the frequency of its London services to daily if the services prove viable. The carrier would lease a further A340 -300 to operate additional frequencies. The Business Plan also states Air Asia X is considering Germany and some other European destinations with Moscow of special interest to the carrier. Air Asia has also looked east toward the USA with possible services to Los Angeles and New York (JFK); however, Air Asia acknowledge the challenge is to secure the rights from the governments (Air Asia 2009-14 Five Year Business Plan). For its Australian operations, the Business Plan states Air Asia X intends to increase its frequencies to Perth and Melbourne and has not given up on its aspirations to operate into Sydney.

In late 2012, Air Asia intends to have a public float of its stock through an Initial Public Offering (IPO) to raise new capital to meet the airline's expansion plans. Air Asia's 2009-14 Five Year Business Plan states the carrier will take action to refit and reconfigure its longhaul A330 and A340 services in both its premium and economy cabins. On 16 June 2009, Airbus and Air Asia X made a joint announcement on the order of 10 A350 -900 XWB aircraft designed to link Kuala Lumpur with destinations worldwide (EADS 2009). The aircraft would be configured with more than 400 seats in a two-class layout. Air Asia CEO, Fernandes said:

“Business is all about timing and long term strategy. We have always planned for the long term and the strategy of Air Asia and Air Asia X is now fixed all the way to 2020 in creating the world's first long haul and short haul low cost airline” (EADS 2009)

As stated in the Jetstar case study, on 6 January 2010, Air Asia and Jetstar CEO's made a joint statement to announce a non-equity alliance between the two airlines (Easdown 2010; Jetstar 2010). The two airlines would work together in a number of areas ranging from joint procurement for the next generation of narrow-body aircraft, pooling inventories of aircraft components and spare parts and joint procurement of engineering, maintenance supplies and services, and co-operation on passenger and ground handling in Australian and Asian ports both carriers

serve. Both airlines stated “this was an important first step” and the alliance could result in cost savings “in the hundreds of millions of dollars” (Easdown 2010).

Share swap with Malaysian Airline System

On 9 August 2011 Air Asia and state controlled Malaysian Airlines announced an equity swap thereby forging ties between the two airlines. Bloomberg announced that Tune Air Sdn., owned by Fernandes and partners, will exchange 10 percent of AirAsia for 20.5 percent of Malaysian Airlines with government-controlled Khazanah Nasional Berhad worth around US\$360 million, based on Bloomberg data (Bloomberg 2011). The move is seen as placing both airlines in a better position in the region to combat the Singapore Airlines Group and may assist both airlines with joint-purchasing agreements, negotiations with government, reduced competition and state backing as an investor in both airlines.

Air Asia demonstrates the application of the strategic window concept through scanning the environment and responding to changes in market conditions in seeking new opportunities. The airline has a clear vision of what it wants to achieve and occupies a low cost position and possibly has the lowest cost per available seat kilometre (US 3.5 cents) of any airline which makes it difficult for competitors to emulate. Air Asia researches its markets and builds scenarios based on different levels of growth ranging from low to high and assesses all aspects including the competition before deciding on route entry.

Air Asia exemplifies the “no frills” strategies typically found in low cost airlines and discussed in the literature by a number of researchers. Air Asia has a coherent marketing strategy, well executed business plans and a sound financial performance. The carrier’s vulnerability lies in its independence and ability to raise capital for its ambitious expansion plans.

Market penetration into the corporate market

No frills, LCCs are associated with predominantly leisure traffic and people looking for a low fare (Blaha 2003; Ergas and Findlay 2004; O’Connell and Williams 2005; Piga, Filippi and Bachis 2001); however, AirAsia reports an increasing numbers of companies trading down to LCCs amid the global

economic downturn (Air Asia 2008-09 Annual Report). Figure 4.2.3 on the following page highlights that unlike most LCCs, Air Asia has experienced solid growth in the corporate travel segment.

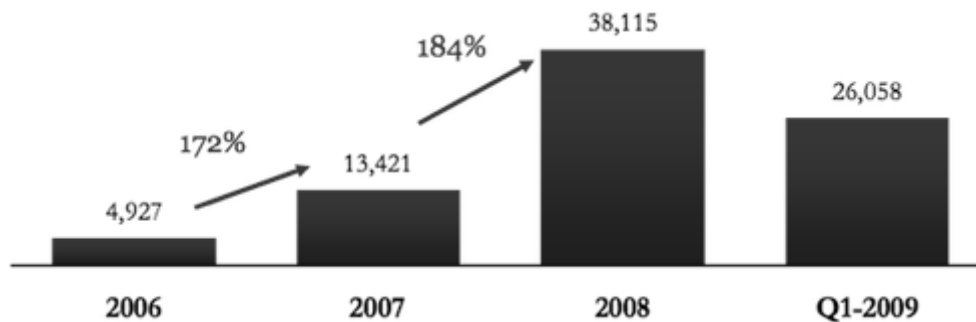


Figure 4.2.2: AirAsia's seats sold to corporate clients: 2006 to 1Q09

Source: Air Asia Quarterly Report, Quarter 2, 2009.

4.2.7 Financial Performance

In 2008-09 when many other airlines were struggling from falls in traffic and yields, Air Asia dramatically increased its profit for the three months ending 31 March, 2009. The carrier recorded a profit after tax of MYR203m (A\$74m) after tax, 26 per cent higher than during the previous year. The carrier attributed the results to an increase in yield, ancillary revenue and lower costs predominately due to the lower cost of fuel (Australian Aviation Express, Issue No.272, 1 June, 2009). The carrier's long haul arm AirAsia X also performed well, producing a core operating profit of MYR17.8m (A\$6.5m) with an average load factor of 69 per cent.

By the end of September 2009, Air Asia reported three consecutive profitable quarters despite the worst economic recession since World War 2 (Air Asia Quarterly Report, November, 2009) in the challenging economic environment that has seen other most established legacy airlines reporting losses, grounding aircraft, retrenching staff and reducing capacity. The Report recorded that Air Asia has continued to drive up productivity gains through investments in technology, contain airport and handling cost while the low interest rate environment assisted the carrier to reduce the cost of aircraft leasing. In its commentary on Air Asia, Australian Aviation Express reported the airline expressed confidence in going forward and the airline would seek to raise capital aimed at reducing the carrier's gearing levels. Air Asia subsequently reported that

it had successfully raised RM505 million in a capital raising exercise to support business growth as well as address market concerns of the company's perceived high gearing levels. Air Asia reported that its gearing ratio now stood at 2.6, down from 3.5 and has more than RM500 million cash in hand (Air Asia Quarterly Report, February, 2010).

Air Asia's results have defied the global airline industry trend which has morphed into a spiralling debt problem for most of the world's airlines. It is apparent from not only discussions with the airline but confirmed from sources such as Orient Aviation and the Centre for Asia Pacific Aviation Studies that Air Asia has capitalised on strategic window opportunities in creating new routes ignored by competitors or routes abandoned by competitors, has rigidly enforced low cost but at the same time has displayed innovation, flexibility and agility. In essence, Air Asia demonstrates the contrast between a long established national carrier bound by its own culture, set of rules and work practices, and a "greenfields" approach applied by an outsider from the airline industry with a clear set of goals, a driving passion and ambition to succeed.

4.2.8 Competitive Advantages: A comparative analysis of Air Asia versus Jetstar

Notwithstanding that Air Asia and Jetstar operate in different markets except for travel between Australia and Asian destinations there are many similarities between the two airlines. Both adhere to the core principals of low cost by seeking ways to reduce costs and eliminating "frills", whilst constantly seeking ways to find new passengers. The researcher considers that "distribution" is the key marketing weapon of the future. In this regard Jetstar has an advantage through its linkage into the Qantas system and code share arrangements. The high number and percentage of sales made through the Internet and other Apps suggests Jetstar has a technological advantage especially in a developed market such as Australia. Whilst Jetstar seeks to be an autonomous business within the Qantas Group, it has the advantages of a strong parent behind the airline that has the financial, technical, marketing and operational resources to draw upon. Air Asia operates in a market still growing and expected to grow with large populations. In comparison, Jetstar operates in a mature market. Neither airline has universal

appeal. The product offering and minimal service levels do not appeal to all travelers. Table 4.2.

Table 4.2.1 A comparative analysis of Air Asia and Jetstar

Attribute	Air Asia	Jetstar
Ownership and Financial structure	Independent, founder and CEO Tony Fernandes is a major shareholder along with other senior executive employees. Have used franchising to establish Air Asia X (Virgin is a 20% shareholder) and operations in Thailand and Indonesia. Airline needs a capital injection to finance future growth and is poised to raise new capital through an IPO in late 2012.	A fully owned subsidiary of Qantas with independent Board. Access to capital to fund new aircraft and expansion. Jetstar's results are included as part of Qantas "Flying Brands" business
Management	Fernandes came into the industry with no previous airline experience but recognized he needed to surround himself with some experienced airline managers and recruited accordingly.	A young and ambitious results driven team from inside and outside the airline industry.
Unit costs	Possibly the lowest in the industry at US3.5 cents per ASK. Costs affected by increasing taxes.	Considered to be between US7.5 and US 8.25 cents per ASK.
Markets	Able to draw on increasing demand for air travel in region from rising middle class seeking a low fare airline.	Holds around 15% of Australian domestic market and 9% of the outbound international market. Airline is complementary to mainline Qantas operations. Generally appeals to leisure market and "visit friend and relatives" market and those looking for a low fare. An advantage enjoyed by Jetstar is its linkage into the Qantas distribution system including some code-share flights.

Attribute	Air Asia	Jetstar
Network	Extensive network throughout Asia within 4-5 hours flying time from Kuala Lumpur. Has opened many new routes ignored or not served by Malaysian including India. Operates longhaul to four Australian gateways.	Serves 16 Australian ports including 8 in Queensland. Serves 5 Asian ports plus 4 x week to Honolulu and Auckland, New Zealand from the Gold Coast.
Product	Short haul tends to be close to the ultra low cost operation. Narrow seat pitch (31 inches). Operates A320 on short haul sectors and A330-300 on longhaul. Leased an A340 to operate longhaul to Europe. Passengers pay ancillary charges for add-ons such as snack food and beverages, checked baggage, in-flight entertainment and comfort packs.	Fits the conventional low cost model. Jetstar is positioned as a low fare airline and derives over 20% of its revenue from ancillary charges. Operates A320s on short haul routes and A330-200 on medium/longhaul routes.
Industrial Relations/Labor issues	Union free. Able to capitalize on low cost labour in home country and region. Uses contractors for ground handling. Airline encourages ideas from employees and engages employees in decisions.	Operates under enterprise agreements and collective bargaining by unions. Have been able to obtain greater workplace flexibility than parent airline. Airline has been under attack by Unions for increasing use of Jetstar Asia employees who are paid considerably less than their Australian counterparts.

Source: the Researcher constructed from secondary sources referred to in the case studies.

4.2.9 Summary

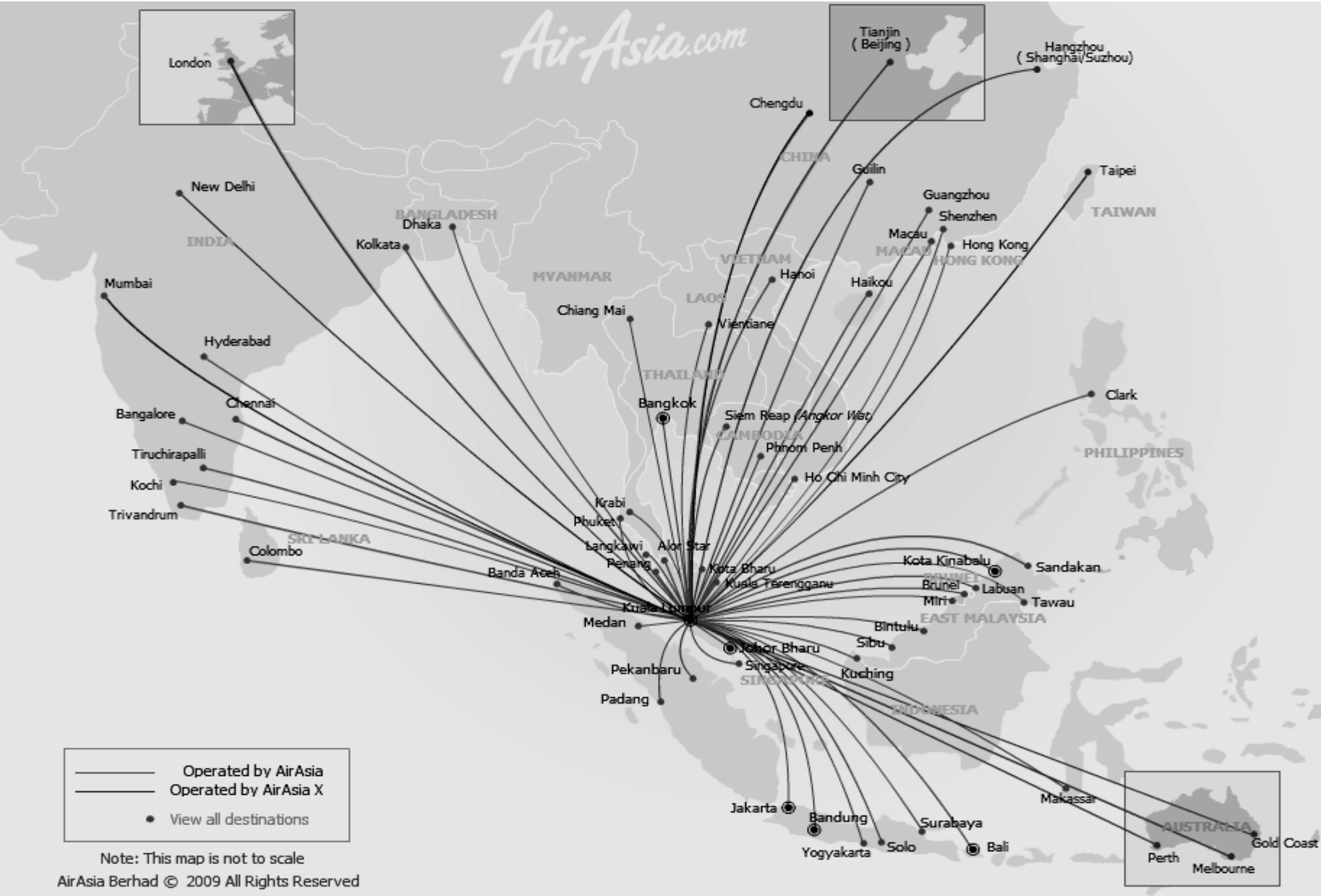
Air Asia's rapid expansion and growth in the different markets of short, medium and longhaul routes is evidence of how the carrier has applied the concept of strategic windows. From its early days as a loss-making rural airline, the carrier under new ownership and management has developed rapidly to become Asia's largest low-cost airline carrying 30 million passengers per annum. Air Asia has been able to exploit aviation liberalisation policies in Asia and introduced services on routes considered either unprofitable or marginal by full service airlines.

Air Asia has applied its own idiosyncratic form of a low-cost airline at the same time adapting business models from other major successful LCCs such as

Southwest Airlines (USA) and Europe's Ryanair and Easyjet. The carrier applies strict adherence to a low cost base and maximising flying time building its revenue base from ancillary charges rather than raising fares. Air Asia has been able to craft the combined talents of executives from other LCCs and has engaged entrepreneurial outsiders into the industry giving the carrier its key strengths, flexibility and agility to move quickly to seize strategic window opportunities as they arise.

Air Asia has ambitious expansion plans with new fleet orders, further new routes and markets. The carrier is determined to grow traffic, market share and profits and sees many opportunities to grow its business with several routes to Indian cities, cross connectivity to Singapore, China and the rest of ASEAN. A single aviation market within the ASEAN region by 2015 should have a positive impact for Air Asia and create further new opportunities. Air Asia has received favourable endorsement from the Malaysian government despite being a major owner of its own national airline. Air Asia's major test will be whether it can sustain its business model, independence and profitability in an industry beset by financial difficulties and at a time when the global airline industry is moving into a consolidation period with mergers and strengthening alliance agreements.

Attachment 1: Air Asia Route Map



Air Asia Berhad Financial Summary 2005 - 2008

(RM million, unless otherwise stated)

	For the year ended 30 June			Six months ended Dec-07	Year ended 31-Dec
	2005	2006	2007	2007	2008
Revenue	718	1,071	1,603	1,094	2,635
Total expenses	596	997	1,322	858	2,966
EBIT	122	74	281	237	-331
Associates contributions	-5.4	-0.5	-3.9	-	-
Profit before tax	114.6	86.2	278	276.7	-869
Tax	-14.3	115.5	220	149	373
Net income*	100.8	201.7	498	425.7	-497

BALANCE SHEET

Cash & cash equivalent	329	426	595	425	154
Total Assets	1,123	2,574	4,779	6,448	9,521
Net Debt (Total Debt – Total Cash)	-329	627	1,959	3,272	6,539
Shareholders' Equity	953	1,148	1,662	2,099	1,606

CASH FLOW STATEMENTS

Net cash from operating activities	-38	282	595	256	-416
Cash flow from investing activities	-297	-1,249	-1,943	-1,581	-2,602
Cash flow from financing activities	589	1,067	1,509	1,141	2,749
Net Cash Flow	254	100	161	-184	-269

Supplement to the case study

The following section has been added to the thesis following the withdrawal of Air Asia X services between Kuala Lumpur and London Stansted and Paris Orly.

On 12 January 2012 Air Asia announced in Kuala Lumpur that the airline would be withdrawing its longhaul services to Europe (London Stansted and Paris Orly) as well as to Mumbai and New Delhi. The airline stated that its business model was more suited to flights of between 6 and 8 hours duration rather than 10-12 hour flying times (Air Asia Press Release, 12 January 2012).

According to the Centre for Asia Pacific Aviation Studies the context for the changes expands beyond fuel costs, rising taxes in Europe and new visa restrictions in Malaysia. AirAsia X was already struggling in Europe and particularly in India. The recent cross-ownership deal between Malaysia Airlines (MAS) and the AirAsia Group was also clearly a big factor.

That is not to suggest AirAsia X's changes are simply a matter of submission to MAS. The biggest advantage, besides brand awareness, of the high profile London and Paris routes was their ability to put passengers on multiple AirAsia short-haul flights as they travelled around south-east Asia. MAS' deployment of the A380 later this year will lower unit costs to London, narrowing the gap with AirAsia X, currently using more fuel-thirsty A340s. With the AirAsia-MAS partnership, and plans for the two to facilitate passenger transfers, the AirAsia group can still gain feed on its short-haul network while AirAsia X will benefit from redeploying capacity in Asia Pacific and, notably, China.

Northeast Asia and Australia probably offer more opportunities for AirAsia X in the new era of the AirAsia-MAS collaboration. But it is also a market becoming increasingly crowded, with fellow long-haul LCCs Jetstar and Singapore Airlines' new Scoot soon to enter the market. Australia would bode well for AirAsia X's IPO, which may occur this year if market conditions pick up.

AirAsia X blamed the cancellations, which were announced on 12-Jan-2012, on jet fuel and specific problems each in Europe and India. In Europe AirAsia X pointed to rising taxes. The carrier now charges MYR40 (USD12.73) per flight to London and Paris to comply with the European Union's Emission Trading Scheme (EU ETS), which came into effect on 1 January 2012. In the UK, the Air Passenger Duty (APD) tax will increase by approximately 10% in April 2012 to GBP92 (USD141) for AirAsia X's regular economy seats ex-London. For an average round-trip AirAsia X ticket between London and Kuala Lumpur, these additional costs represent around 3% of the ticket price. In a highly price-sensitive market, where margins are low, this is a severe impost, even though AirAsia X has reported average load factors of around 80% to Europe.

For its cancelled Indian destinations, AirAsia X blamed airport charges, which are due to increase at Delhi later this year, and visa restrictions in Malaysia. However, AirAsia will maintain A320 flights to Bangalore, Chennai, Kochi, Kolkata and Tiruchirappalli from Kuala Lumpur, as well as an A320 flight between Bangkok and Delhi. AirAsia and AirAsia X typically divide network opportunities by AirAsia flying sectors under four or five hours and AirAsia X taking flights above

that. Mumbai and New Delhi are the only two long destinations in India from Kuala Lumpur. While the Malaysian Government's cancellation of visa-on-arrival for Indian nationals has been punitive and AirAsia X has lamented it for some time, there have been no recent developments to change the situation. Far more of a problem was AirAsia X's lack of distribution in India, a market where direct online ticket purchasing is small.

The four route cancellations represent 27% of AirAsia X's total weekly available seat kilometres, and 22% of available seats, based on Innovata capacity data. London and Paris are the only points AirAsia X serves in Europe, while Mumbai and New Delhi are the only points AirAsia X serves in south Asia. Does this mean that the concept of low cost longhaul has no future? It is a challenge for independent airlines but financially strong carriers such as Qantas and Singapore Airlines with all their marketing muscle are more likely going to succeed than fail.

Chapter 5

Part 1: Migrating from low cost short haul to longhaul

5.1.1 Introduction

The first part this chapter fulfills two research objectives and questions. The first objective is to consider what elements of the short haul cost model can be transferred to longhaul airline operations and to establish a low cost longhaul airline model. The second objective is to determine whether a longhaul low-cost airline can attain a cost advantage compared to full service airlines to enter the Australia-Europe market to capitalise on the strategic window opening created by the Australia - EU open skies agreement. Research to date has speculated on this issue and is somewhat generalized although there is a general acknowledgement that not all elements from the low cost short haul model are transferable to longhaul. In discussion with a Virgin Australia senior manager actual flight performance management on longhaul sectors can be a critical factor such as power thrust on lift off, rate of climb and time to reach cruise altitude, fuel burn and the importance of aircraft weight and therefore its impact on performance are regarded as critical factors. However, this research is not about airline fuel consumption and aircraft performance but is mentioned because it is such a critical factor in trans-continent operations and across vast ocean expanses.

Tables, charts and figure shown have been constructed or derived from well credentialed airline sources such as IATA, ICAO, Association of European Airlines (AEA), the Boeing Airplane Company and the Sydney-based Centre for Asia-Pacific Aviation Studies. For example, the ICAO website delivers air transport statistics in a user-friendly interface allowing for easy access and analysis. The database contains detailed financial, traffic, personnel and fleet information for commercial air carriers. It also holds Traffic by Flight Stage (TFS) information and On-flight Origin/Destination statistics for air carriers. Additionally financial and traffic data for airports are available. IATA, the main airline transport body, also undertakes comprehensive airline data analysis of costs and issues periodic briefing papers including economic briefings and stages symposiums from which speeches, addresses and media statements are made available in the public domain.

Cost data for Qantas and Emirates Air unit costs per passenger kilometer for longhaul operations and was obtained from a reliable airline organization for these two dominant full service carriers operating from Australia to Europe. The data was then adjusted to reflect a hypothetical all economy class service based on a one-stop Melbourne to London journey of 12,000 miles. Consideration was then given where further cost reduction could occur by adhering to the principals of “low cost” but taking into account the different nature of longhaul operations compared to short haul operations such as aircraft type and airliner operating performance (weight, cruise altitude, wind speed and fuel burn) and an airline’s cost in its home country. Some cost inputs remain constant, for example fuel, whether the airline is a full service carrier or a low cost airline. All the respondents were able to verify and confirm the data presented and the researcher’s views about transferable elements of the short haul low cost airline model for longhaul low cost operations.

5.1.2. Structure and Organisation

The structure of this part of chapter 5 is as follows. First, in order to achieve the research objective to establish a low cost longhaul model, the core marketing and operational elements of a low cost airline are discussed and analysed including strategies deployed by LCCs such as aircraft choice, seating configuration, turnarounds, airports, frequent flyer schemes, strategic alliance partners and interlining, and overheads. This is then summarised into a table to highlight the core elements that are fundamental to low cost airlines. Second, the next step was to consider each cost efficiency element and how it may be transferable to a longhaul airline operation and its applicability. The final step in the process was to then develop a model for longhaul, low cost. Third, and to fulfil the key research objective which is to determine a cost differential between a longhaul low cost airline and a full service airline, the section commences with a ‘global’ picture of airline direct and indirect costs to build an understanding of airline cost inputs.

5.1.3 A new business model for low-cost, longhaul operations

The following section considers the applicability of cost efficiencies attained by short haul airlines and determine their applicability to longhaul airline operations

given the different operating characteristics of longhaul. Table 5.1.1 below shows this analysis.

Table 5.1.1: Applicability of cost efficiencies to long-haul operations

Cost efficiency areas	Application to short-haul LCC operations	Applicability to long-haul
Single class seating	Narrow seat pitch – 'cram them in' Often no pre allocation	Multi-class. Importance of front of aircraft yields. More comfort required the longer the haul. Need for toilets and galleys Pre-allocated seating almost essential
High aircraft utilisation	Seen as crucial	Already achieved because of longer sector lengths providing layover time not extended
Load factors	Requires high load factors to achieve break-even	Yes potentially
No frills	Yes, increasingly "unbundling the product. Customers pay for all optional extras	Flight duration dictates that some in-flight services would need to be offered
Catering	Minimal – snack food, not included in fare	Would need to be provided however limited
In-flight entertainment	Limited and additional charge	Likely to be valued more highly
Frequent Flyer Rewards	Limited number of LCCs offer these	Maybe seen as more valuable
Network	Point-to-point, no interlining	Importance of hubs
Aircraft type	Mainly B737 or A320's suited to up to 4-5 hours max haul	Larger capacity/long range aircraft
Airports	Extensive use of secondary airports Fast turnarounds (30-40 mins) essential Low cost and efficiency essential	Need a minimum of one hour allowing for embarkation/boarding/cleaning /galleys/ baggage/cargo/refuelling Need major airports as collect traffic from more spread out geographic area as well as feed traffic
Cargo	No	Traditionally an important source of revenue
Crew	Try to achieve cost advantages Return crews to base – try to avoid crew accommodation costs	Regulatory conditions on duration of duty/time off. Additional crews for long sectors

5.1.4 Transferability elements

Turnarounds

A basic fundamental of the low cost short haul operation is fast turnarounds with 30 minutes regarded as the benchmark in order to achieve high aircraft utilisation. However, fast turnarounds are not realistic for longhaul operations. First, wide-bodied jets carry more passengers to disembark (up to 300 compared to 180) and embark including baggage, plus cleaning and catering requirements and refuelling. Furthermore, the standing time at an international airport may need to be longer to suit arrival times at the destination, meet the minimum crew rest period or to avoid curfews. Airlines with long dwell times at an airport have their aircraft towed from the gate to avoid paying for unnecessary terminal space.

Airports

A key characteristic of LCC's is to seek low airport charges and negotiate incentives with airport companies. Short haul operations have been able to capitalize on under used secondary airports especially in Europe – so named because they are located in regional towns and municipalities and owned and operated by local councils and enter into commercial arrangements on risk sharing. However, the use of secondary airports for longhaul operations is not realistically possible because they would be unable to meet operational standards such as aircraft weight and runway length and strength, lack of adequate runway extension areas, lack of lighting and other navigational equipment and regulatory control. Primarily, LCCs do not want to pay for high cost services they do not require and try to avoid expensive and congested 'hub' airports (Childs 2000; Dobruszkes 2006; Francis *et al.* 2006; Mason and Morrison 2008; Pels 2008). Whilst cost at a major airport may be unavoidable, there are marketing advantages as LCCs can offer connectivity and there are a range of spoke services from a major hub to other destinations. Unlike short haul operations which mainly draw passengers from the immediate area, a critical element to low cost longhaul operations may be the need to be more reliant on hub traffic and feeder traffic.

Frequent Flyer Schemes

Most LCCs do not offer a frequent flyer program (FFP) although increasingly carriers with subsidiaries allow points to be used, for example Qantas allows its

frequent flyers to use points on Jetstar services for which Jetstar recovers the cost from its parent owner. FFPs are primarily aimed at corporate and business travellers who travel often whereas the marketing strategy of LCCs is primarily concentrated on leisure travelers and low point-to-point one way fares with strict conditions concerning booking changes and cancellations. LCCs have avoided offering FFPs because they require expensive administration to control. LCCs would rather offer low fares to offset any advantage of a loyalty program. The whole essence of an LCC is to keep the product simple and contain cost hence they do not provide airport lounge facilities. LCCs prefer to use a range of other incentives, for instance “fare sales” and birthday sales to stimulate demand. In a survey of longhaul travellers conducted by IATA in 2008 of over 4, 000 passengers using a ‘weighted basket’ approach ranking attributes on what is more important to them and what factors influence their decision in choice of airline a frequent flyer program was ranked first from seven key variables. However, the survey did not provide any segmentation of traveler and the result could be influenced by a disproportionate number of corporate travelers who are more likely to place a greater emphasis on FFPs than a leisure traveller more driven by price and convenient schedule therefore some caution is needed in interpreting the IATA survey. Based on the cost efficiencies identified in the analysis shown in Table 5.1.4 above building a new model for a low cost longhaul airline would expect to find the following characteristics in Table 5.2 below (shown in alphabetical order).

Table 5.1.2 Model building - transferability of low cost model to low cost longhaul operations

Element	Low Cost Model	Longhaul Low-Cost model
Aircraft choice	Regional jet – Boeing 737 or Airbus A320 with high density seating	Long range, fuel efficient, 250-300 seat capacity – new Boeing 787 yet to enter commercial service appears to offer lowest operating cost; however, other contenders include Boeing 777ER, Airbus A330-300.
Aircraft usage	High	Will be achieved because of longer sector length
Airport	Secondary (mainly)	Need major airports for hub /spoke traffic and connections to/from other points with other airlines. Do not require aerobridges or ‘gold-plated’ facilities or prime slots.
Alliances	No alliance partners	More important for feed traffic and code-sharing
Brand	One brand (low pricing)	One brand (low pricing), but clear about service
Cargo	Generally no	May need for incremental revenue but

Element	Low Cost Model	Longhaul Low-Cost model
		would be airport-to airport only carrier
Check-in	Ticketless	Ticketless
Class segmentation	Single class	Multiple classes (usually two) Offer a limited number of pseudo business class type seats. Economy class could be segmented to 'standard economy' and 'economy lite' (all add-ons are an additional cost)
Connection	Point-to-point, no interlining, no baggage transfer	Point-to-point, no interlining, no baggage transfer, self connecting
Customer Service	Generally underperforming	Unknown
Distribution	Online, direct booking	Online, direct booking Selective distribution through major retail chains.
Fare	Simplified fare structure: peak and off-peak. Time of booking also important: the earlier, the cheaper, Low price (60% or more below legacy carriers).	Simplified fare structure; the earlier you book, the cheaper the fare. Competition based pricing – below FSAs (price and quality integration); include a “comfort pack” and baggage allowance but customers pay for in-flight meals; in-flight entertainment.
Frequency	High	Low to moderate (about once per day).
Frequent flyer program	No (mainly)	Maybe more valuable.
In flight entertainment	Pay for amenities, onboard selling	Longer haul passengers are likely to value this more highly.
Markets	Leisure and visit friends, relatives segments buy on price. Prepared to forego service enhancements	Longhaul leisure travellers, price conscious travellers, end-to-end traffic without stopovers buying an air fare only without add-ons such as accommodation, and touring.
Outsourcing	Extensive usage especially where limited number of services to an airport	Extensive use especially in overseas ports as well as accounting/payroll type functions.
Operational activities	Focus on core (flying)	Focus on core (flying). Sometimes cargo.
Seating	Small pitch, no assignment	Comfort more important the further you fly. Pre-allocation might be demanded.
Target Group	Leisure, time and price sensitive business travelers	Leisure, time and price sensitive business. travelers
Turnaround time	25 minutes	Less important since aircraft spend more hours in the air. Also depending on work/rest periods

Adapted and developed by the researcher

5.1.5 Airline Costs

Essentially, airline costs can be classified into direct operating costs and indirect costs although Holloway (2003) in discussing airline economics adds non-

operating costs to his model shown as Figure 5.1 below. Direct operating costs (DOC) include every cost that relate to flight operations which is further divisible into variable and fixed costs.

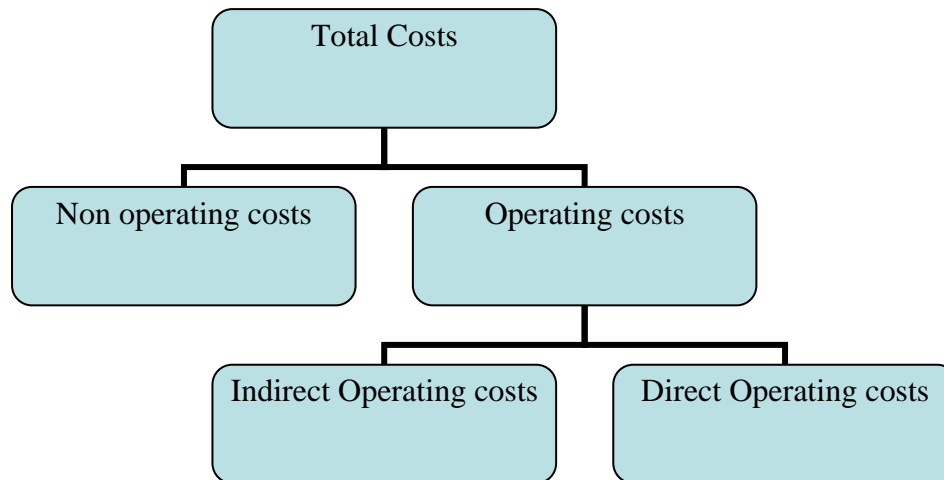


Figure 5.1.1 Model of Airline Costs

Source: adapted from Holloway (2003)

The direct operating costs for an airline include the following:

Variable Direct Operating Costs:

- Fuel
- Crew outstation costs
- Maintenance cost
- Airport and en route charges
- Passenger services charges

Fixed Direct Operating Cost:

- Aircraft rental or depreciation
- Crew basic salaries
- Maintenance overheads

Source: Holloway (2003)

Figure 5.1.2 shows Airline Direct Operating Costs as a percentage of total costs taken from a ‘basket of world airlines’ sourced from ICAO which highlights that fuel is an airline’s largest direct operating cost. Despite small variations in flight planning and slightly lower cruise speeds, essentially fuel cost as a percentage of overall direct costs is the same for full service and low cost airlines. According to the Association of European Airlines more than 50% of an airline's cost base is out of its control - with fuel, navigation fees, airport fees, carbon permits and other regulations (AEA 2009).

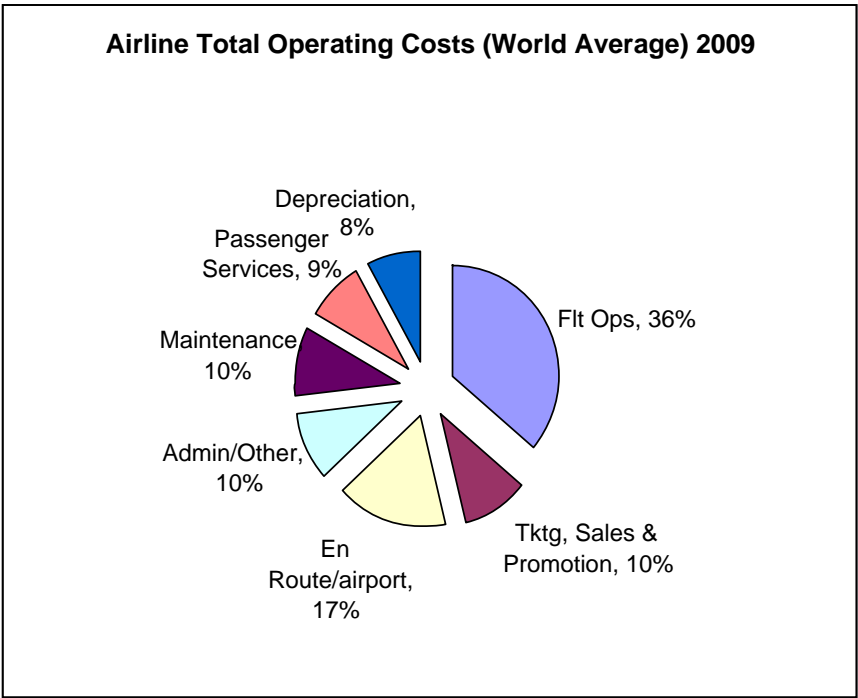


Figure 5.1.2 Airline Total operating Costs (World Average) 2009
 Source: ICAO

Figure 5.1.3 below shows Airline Indirect Operating costs as a percentage of total indirect costs. Depreciation and interest – mainly aircraft lease repayments account for 46% of indirect costs and marketing represents a further 34% of indirect costs. Marketing includes sales commissions, distribution costs, advertising and promotion, sponsorship, and frequent flyer programs.

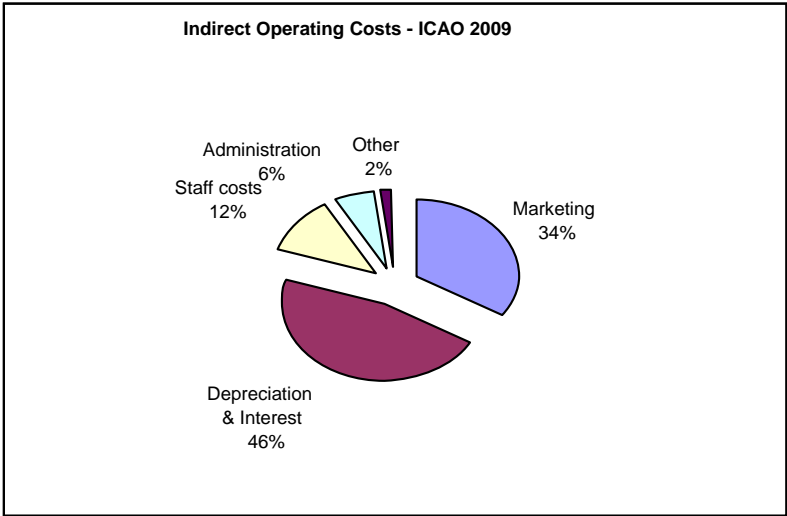
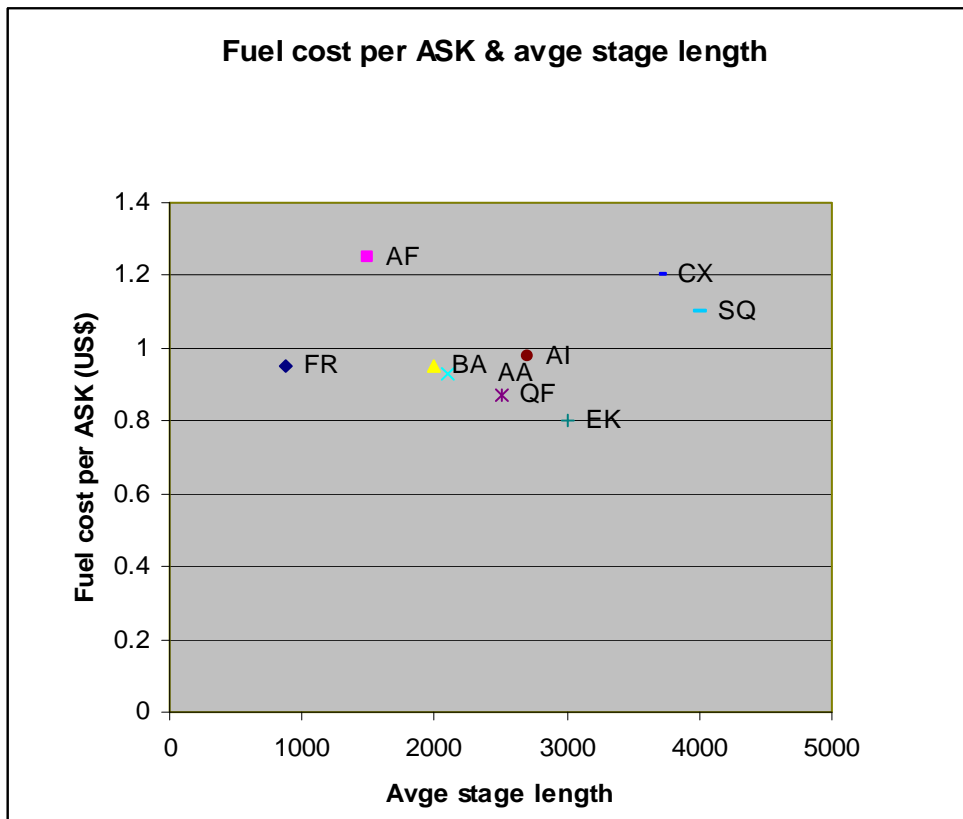


Figure 5.1.3 Airline Indirect Operating Costs 2009
 Source: ICAO

Fuel cost and Sector stage length

Figure 5.4 below shows fuel cost expressed per ASK and average stage length for nine airlines obtained from ICAO data which includes the four dominant airlines between Australia and Europe – Qantas, Emirates Air, Singapore Airlines and Cathay Pacific. Singapore Airlines has the highest average stage length of 4,000kms per passenger but its fuel cost per passenger is 1.1 cents compared to Qantas at 0.87c which because of its domestic and international route network averages 2,500km per passengers. Emirates Air with an average sector length per passenger of 3,000 km has the lowest fuel cost per passenger partly attributable to average higher load factors. A problem faced by carriers such as Qantas and Jetstar and verified by the Centre for Asia Pacific Aviation Studies is that many of its costs are denominated in US dollars and any fall in the value of the Australian dollar impacts on costs for fuel, parts and other needs.



Key:	CX	Cathay Pacific	
AA	American Airlines	EK	Emirates Air
AF	Air France	FR	Ryanair
AI	Air India	QF	Qantas
BA	British Airways	SQ	Singapore Airlines

Figure 5.1.4 Fuel cost per ASK and average stage length of selected airlines

5.1.6 Longhaul Carriers – revenue and cost per available seat kilometer

From data obtained from the Centre for Asia Pacific Aviation Studies from airline company reports Table 5.1.3 below depicts the revenue earned per available seat kilometre compared to the cost per available seat kilometre for ten international carriers that operate medium to long-haul services either between Australia and Asia and Asia to Europe. The data covers the three months ending 30 June 2010. There is a substantial difference between Asian and European airlines for both revenue per available seat kilometre and cost. This reveals the higher cost of operating in Europe (salary and wages, overheads, fuel expense, airport charges) and the high fare structure for flights between one and three hours duration compared to Asia. More significantly, it is the margin between ASK cost and ASK revenue that determines profitability. Cathay Pacific, Scandinavian and Singapore Airlines (in that order) produced the most positive result whilst Qantas revenue per ASK exceeds cost by 0.16 cents per ASK. The data needs to be considered in context as it does not segregate short haul, medium haul and longhaul operations. The data has captured only one quarter and not a full year result and therefore does not include the peak longhaul travel months in the northern summer to Europe when demand – and fares, are at their highest. The data however does highlight the sentiments of the IATA Director-General that few full service network airlines in the world are profitable and have faced a difficult and serious prolonged period of losses (IATA 2010).

Table 5.1.3 Revenue and cost per available seat kilometre of selected airlines for quarter ending 30 June 2010

Airline	Revenue per available seat kilometre (US\$)	Cost per available seat kilometre (US\$)	Difference Revenue versus Cost
Thai Airways	6.76	7.15	(0.39)
Cathay Pacific	9.55	8.41	1.14
Malaysia Airlines	7.90	8.75	(0.85)
Singapore Airlines	9.61	8.92	0.69
British Airways	8.88	9.21	(0.33)
Qantas	9.84	9.68	0.16
Finnair	10.20	10.68	(0.48)
Air France	12.05	12.51	(0.46)
Scandinavian Airlines	15.03	14.18	0.85
Lufthansa	16.41	16.49	(0.08)

Source: ICAO

5.1.7 Competitive advantage based on cost

A key research objective is to determine whether a low cost longhaul airline can achieve a cost advantage compared to full service airlines. A cost advantage would enable a longhaul airline to be competitive through having lower costs than its full service competitors. This exercise was undertaken by using cost data obtained by the researcher for a Qantas one-stop service from Melbourne to London Heathrow) and its competitor, Emirates Air –operating a one stop service also to London Heathrow via Dubai. Both these airlines are dominant in this market. Cost data was then converted to an all economy class service based on 80% seat occupancy based on the higher load factors normally attained by LCCs and adjustments made to reflect such. The next part was to then determine transferable cost savings that could reasonably be expected to flow to a hypothetical low cost airline operating a one stop service Melbourne to Rome (a possible future Jetstar service). The intermediate stop is not significant. Whilst there may be some differential charges between airports in south-east Asia any cost differentials would be relatively inconsequential in the cost model. Jetstar confirmed to the researcher that airport charges constitute no more than 5% of its international operations cost.

The following steps were applied. First, the unit costs for each carrier (Qantas and Emirates Air) are shown in column 1 and 2 respectively (Table 5.1.8). Only small differences separate the two carriers. The next step converted the service to an all economy class service meaning that if these same two airlines operated a one class (standard economy) service foregoing premium revenue (and associated cost) which would mean costs could be distributed over a greater number of passengers (from 75% load factor to 80% load factor is a reasonable increase). The data expressed in this manner complies with standard airline reporting on costs and was verified by the Centre for Asia Pacific Aviation Studies and AirBiz. The fourth column represents where a further adjustment would be applicable to a low cost airline operation. Clearly there are some limitations which are discussed further on.

Table 5.1.4 Cost differentials between full service airlines and a hypothetical low-cost airline based on a per passenger cost for a one-stop Melbourne to London journey of 12,000 miles

as of 2010

(in AU Dollars)

	Emirates	Qantas	Adjusted for high density all ey class 80% load factor	LCC/no frills airline with other adjustments
Flight crew	69.34	71.88	62.29	58.11 (6.4%)
Cabin crew	75.57	76.75	60.63	56.65 (6.3%)
Fuel	382.57	410.05	374.52	374.52 (46.6%)
Insurances	7.72	7.58	5.91	6.57 (0.8%)
Aircraft	157.57	168.91	131.75	131.75 (17.8%)
Training	2.84	2.60	2.26	2.26 (0.3%)
Maintenance	51.32	58.38	50.59	50.59 (6.1%)
Airport	52.85	55.38	48.00	48.00 (5.1%)
Navigation	30.40	32.98	25.73	25.73 (3.1%)
Passenger services	50.93	49.96	39.47	34.06 (2.5%)
Sales/Commissions	41.61	35.85	31.46	28.73 (1.9%)
Advertising	13.48	11.48	10.08	10.08 (1.2%)
Administration (incl outsourcing)	23.60	26.79	23.51	22.76 (1.4%)
Cargo specific	17.07	20.02	17.57	0.00
Total per PAX	976.87	1028.61	937.35	849.81

Analysis and Discussion

Aircraft costs, air navigation and fuel are all similar to the adjusted all economy class configuration but cost differentials for an LCC could be expected for technical and cabin crew where salaries and conditions are different (lower) for LCCs; as well as passenger services costs including sales and marketing. No cost for handling cargo has been included. This is justifiable for two reasons. First, LCCs in general do not carry cargo and do not offer a cargo service. Even if a longhaul LCC was to carry cargo it would only receive cargo at airside for carriage and not be involved in acceptance, documentation, loading, delivery and

other overheads. Thus, in all probability, cargo could become incremental revenue at little incremental cost (added fuel for added weight).

To authenticate the findings, three different approaches were followed. First, factual opinion and verification was sought from three different sources - the Centre for Asia Pacific Aviation Studies, AirBiz and Virgin Australia. Jetstar was also shown the figures but declined to comment or reveal their own cost scenarios for their proposed operations into southern Europe. AirBiz and Virgin Australia qualified their opinion noting that some variables would impact on overall cost such as aircraft choice that affects fuel consumption, weight, landing charges and payload, and whether cargo is carried that affects both revenue and cost (fuel and weight). Both organisations did not disagree with the findings and thought that at one end of a scale the 13 per cent differential between a low cost longhaul airline and Emirates Air was realistic given Emirates has some inherent cost advantages compared to Qantas. At the other end of the scale, a 17.4 per cent cost differential was determined relative to Qantas costs. Therefore, the 15-20 per cent band was considered reasonable by two expert airline consultancies. Second, the Boeing Airplane Company conducts its own modeling and has considered the same problem. Boeing conducts its own modelling for prospective airline companies and is based on pre-delivery of aircraft and therefore any modifications required by the new airline owner such as seating configuration, galley space, volume of potable water carried, or cargo hold space can affect calculations, therefore some caution needs to be exercised when using such data. Whilst the Boeing model shows a 25 % cost differential between a full service airline and a low-cost airline mainly attributable to the financing of new aircraft acquisition. The Boeing model shown below as Table 5.1.6 has assumed a lease arrangement but does not reveal the rate of interest on the asset but rather shows a fixed lease amount per sector operated. The data shown is based on a Boeing 777-200 extended range aircraft currently in service with several international airlines. Notwithstanding the variability of the Boeing model it serves a useful purpose. Significantly, a cost per available seat kilometre is determined and can be compared against other analyses used in this case study.

The third approach adopted was to consider current Jetstar costs per ASK on its Australia/Asia services and compare its cost against Qantas services. From an interview with Jetstar the airline confirmed Jetstar’s cost per available seat kilometre is 8.2cents compared to Qantas 10.3 cents – a differential of 20.4 per cent. When questioned about how such cost difference was achieved, Jetstar listed the following factors:

The Jetstar business model was able to deliver lower labour costs – crew and ground handling; lower fixed costs – office rents, facilities, corporate costs and better ratio of passengers to employees; more contracting out; hard negotiations with airport companies over airport services charges; higher fleet utilization; and more direct marketing compared to reliance on travel agents.

Table 5.1.5 Cost model developed by Boeing Airplane Company

All costs in US\$	Full Service Model	Low Cost Model	Low Cost Model advantage (-)
Capacity	301	375	N/A
Direct operating cost – lease per sector	98,080.91	109,269.81	11.4%
Total DOC per sector	124,380.91	135,569.81	9.0%
Total DOC per seat per sector	413.23	361.52	-12.5%
Total Indirect operating Cost per sector	43,701.40	21,444.00	-50.9%
Total cost per sector	168,082.31	157,013.81	-6.6%
Total cost per seat per sector	558.41	418.70	-25.0%
Unit cost/ASK (US cents)	5.36	4.02	-25.0%

Source: adapted from Boeing Airplane Company

5.1.8 Summary

This part of the chapter has fulfilled two important research objectives and further advanced our knowledge of the longhaul, low cost airline industry. Whilst some features are transferable it is apparent that longhaul operations are such a distinctive type of airline operation it calls for a reworking of the short haul model. This research has considered 21 key operational and marketing elements

connected with the short haul LCC operation and evaluated each and determined their applicability to longhaul airline operations and where some modification would be required. Thus, this research has filled an important gap in the literature by importantly determining that longhaul low cost can attain a cost advantage compared to full service airlines and has advanced the debate concerning the concept of longhaul, low cost. The cost model developed has determined that a cost advantage expressed in “cents per available seat kilometre” (CASK) has found that a cost differential of at least 13% and up to 17.4% between a low cost longhaul airline and a full service airline can reasonably be expected to be attained by a low cost longhaul airline operating between Melbourne and Rome.

Based on the external sources the cost differential arrived at by the researcher has revealed that first, the Jetstar/Qantas comparative cost based on Australia/Asia services is 20.4%; second, the Boeing model at 25% (considered high); and thirdly, the researcher’s own analysis taken from airline cost data and adjusted for an all economy class service and expected cost differences although only small between a low cost business model and full service airlines. This produced the lowest result at 17.4 per cent based on a comparative Qantas versus Jetstar operation; or 13 % compared to lower cost Emirates Air. Emirates is able to achieve its cost advantage from having lower costs in its home base, Dubai such as imported labour, obtains favourable EU loan finance for the purchase of new (Airbus) aircraft manufactured in the EU, and achieves better than average load factors on flights than its competitors (Emirates Annual Report 2009-10). To authenticate the cost model it was validated by two expert aviation sources – the Sydney based Centre for Asia Pacific Aviation Studies and a Virgin Australia senior manager responsible for longhaul operations who both agreed with the approach and the conclusion.

When it comes to longhaul airline operations there are more variables surrounding flight management practice than for short haul flights. This point was emphasized by Virgin Australia and although not a topic of a case study, their recent experience in launching longhaul operations and willingness to be interviewed to provide greater insights and perspectives was invaluable. The main variable is in fuel consumption which represents the singlest, largest cost at around 30% of

direct operating cost. According to Virgin Australia factors such as rate of climb and time taken to reach cruise altitude, cruise speed, wind direction the weight of the aircraft and fuel burn all impact on fuel consumption. Other operational variables include the choice of airports and airport charges; ground handling charges at an overseas port including engineering and maintenance requirements; pay scales and allowances for crew and time away from base.

The research highlights that to develop a business model for low cost longhaul airline operations some adaptation of the short haul airline model is necessary across a number of operational and marketing characteristics. The different characteristics of the two types of operations is unable to deliver the same level of cost saving that LCCs achieve on short haul operations where narrow bodied aircraft are used and the nature of the network allows for fast turnarounds, high aircraft utilization and high productivity. What the research conclusively shows is that the 25-40% cost differentials attained by short haul low cost airlines cannot be replicated when it comes to longhaul operations given the different type of operating characteristics.

It would be wrong to say longhaul low cost is only in its infancy but it has had a chequered past and history of failures. Kjelgaard (2007) described carriers such as Zoom, Oasis and Air Asia X as “the second time around” but as at the end of December 2011 only Air Asia X exists. It would therefore seem more likely that the “third time around” is most likely going to emerge from the carrier-within-a-carrier strategy from airlines such as Qantas and Singapore Airlines. This strategy enables the offshoot airline a number of advantages such as a solid financial base, the experience of airline management, favourable access to purchasing agreements for new aircraft and a common board of directors to give an airline group clarity, confidence and certainty. The alternative approach is to become a large airline group such as what is occurring in Europe and North America where the airline industry is consolidating into powerful groups. However, much of the consolidation occurring in these markets is not so much focused on new markets and competitiveness but on financial survival. However, there are synergies obtained from mergers and partner airlines with a flow on effect to airline consumers. Whilst there will always be opportunities for independent

entrepreneurs to enter the airline industry, history suggests that unless the owner has deep pockets the airline industry it is a brutally competitive industry where only the strongest will survive.

This finding advances the research into low cost longhaul airlines from the more exploratory studies conducted by Dobruszkes (2006); Francis *et al.* (2007); Morell (2008); Vasigh *et al.* (2008) and Wensveen and Leick (2008), which has merely speculated on possible areas for cost savings without testing the data. Therefore, this research explicitly determines the cost differential between low cost longhaul and full service airlines and has application to any “no frills” airline entering longhaul routes competing against full service airlines. It fulfils two important research objectives and examines the strategic window concept in an airline setting confirming that the window is “open” for the entry of a low cost longhaul airline between Australia and Europe subject to market planning, operational issues and regulatory issues.

Part 2: Strategic Windows:

Australia – Aviation policy and respondent’s views

5.2.1 Introduction

The discussion in chapter 2 established that recent changes in bilateral air service agreements between Australia and the EU have opened a strategic window for new airlines. The purpose of this part in this chapter is to first review Australia’s policy settings since 2008 - in particular the granting of substantial additional capacity to Gulf State airlines who are able to exploit fifth freedom rights by carrying Australia-Europe traffic via their home hub point (Asian carriers are also fifth freedom carriers when transporting traffic Australia to the EU via their home hub point). In this respect questions asked by the researcher to aviation bureaucrats and a well credentialed independent aviation organisation provide interesting insights into Australia’s thinking and how Australia’s policy has evolved. In the 2009 White Paper on Australia’s international aviation policy it was stated that Australia has moved towards a more liberal but controlled outlook towards open skies agreements in recognition of Australia’s “end-of-line” geographic position, granting capacity increases ahead of demand and what is in Australia’s national interest (Department of Infrastructure, Transport, Regional Development and Local Government 2009).

5.2.2 Developments since 2008

With a new incoming Australian Federal Labor government it was not expected that there would be any significant changes to international aviation policy and that the government would move forward cautiously. However, balancing policy positions with a range of external factors occurring within the aviation industry were becoming somewhat problematic. At an address given by the Centre for Asia-Pacific Aviation Studies (CAPA) to the Bureau of Transport and Regional Economics Transport Colloquium held in Sydney on 13 June 2007 attended by the researcher, on the issue of liberalisation CAPA (2007) had observed uneven progress globally. CAPA acknowledged that the airlines were increasingly setting the reform agenda through developing new alliance structures and joint ventures. On the question of where Australia stands on international aviation liberalisation,

the Centre noted that Australia had limited prospects, meaning that on the Kangaroo route, Australia stood isolated but was under increasing pressure from the changing competitive dynamics coming mainly from Gulf State carriers. CAPA (2007) stated that between 2007 and 2011 airlines from the Gulf States will have increased their weekly capacity by 113% and had already secured 19.8% of the Australia-Europe market. Of significant interest was the realisation that seven out of 10 departing passengers leaving Australia were doing so on a foreign airline. From the conference, the researcher deduced that four key forces were transforming commercial aviation, namely:

- ✓ The emergence of second tier international carriers in the Asia-Pacific region such as Malaysian-based Air Asia X, Qantas' Jetstar, and Singapore-based part Singapore Airlines owned Tiger Airways;
- ✓ The after-effects of the global financial crisis on travel demand and more significantly on aviation costs, in particular fuel prices
- ✓ The strengthening of alliances and code-share arrangements; for instance the Star Alliance – the largest by number of carriers and network; and the One World Alliance - smaller in size but arguably with stronger airline brands than its competitor. More recently, the introduction of Virgin Australia longhaul services has seen the carrier enter into code share and alliance arrangements
- ✓ The impact of Gulf State carriers on markets with Dubai and Abu Dhabi competing for stopover traffic en route from Australia to Europe against Asian destinations.

5.2.3 Australian Government International Aviation Policy

Green Paper 2009

According to the Australian Government's Green Paper on Aviation 2009, Australia would maintain "a flexible policy framework that can accommodate growth over the medium to long-term, with a focus on key growth markets, while maintaining a strong Australian-based industry" (Green Paper on Aviation, 2009). A key platform and objective of Australia's decision to grant extra capacity to UAE airlines (and subsequently to Qatar) was to encourage foreign carriers to

commit to a long-term presence in Australia. The argument used by aviation bureaucrats and reinforced in an interview was that UAE airlines served many cities in Europe, Africa and the Middle East that Qantas (and other airlines) did not serve. The Federal Department of Transport Secretary acknowledged that Australian and EU carriers faced diminishing opportunities in this part of the world and that market share has been lost to Asian and Gulf State hub carriers whose geographical advantage allows them to take greater advantage of liberalised aviation markets. The Secretary considered that a comprehensive agreement between Australia and the EU would provide opportunities for Australian and European airlines to recover some lost ground. He also believed that Qantas would respond to the new challenges such as forging closer relationships with partner airlines and adapt to the new environment.

White Paper 2009

In December 2009 the Australian government released its White Paper on Aviation. The White Paper details firstly, the important role aviation performs in supporting broader economic, trade and social outcomes; secondly, the regulatory framework the Australian Government maintains to keep the industry safe and secure; thirdly the importance of continued investment and protection of aviation infrastructure and reforms to planning arrangements at Australia's major airports; and finally, the importance of minimising aviation's negative impacts on the environment and communities. The presentation of these priorities reflects the Government's desire to present the industry's role in context, before describing the important initiatives the Australian Government has put in place to improve safety, regulatory and planning oversight for the industry (White Paper 2009).

The Government has identified a number of key goals for the industry over the coming years within a flexible policy framework that can accommodate growth in international markets over the medium to long-term, with a focus on key markets, while maintaining a strong Australian based industry. In framing its international policy settings, the Government aims to:

- improve opportunities for Australian carriers to access international markets;

- increase competition and choice for Australian and foreign travellers on international routes to and from Australia; and
- improve trade and tourism opportunities for Australian industry.

There was broad support in responses to the Green Paper for the view that Australia's international aviation policy settings needed to provide a platform for enhanced trade and tourism flows and deliver benefits for the broader Australian economy. Stakeholder comment varied, however, on the pace of liberalisation. Australia's international airlines were broadly supportive of the current policy where changes to individual bilateral agreements seek to balance the need to obtain commercially useable rights for Australian carriers with the benefits which flow from increased foreign airline access. Other stakeholders argued Australia would be better served through allowing greater access for foreign airlines.

The Director of Air Services Negotiations, Mr. Samuel Lucas when interviewed by the researcher stated the Government will continue to pursue liberalisation of the international aviation market, including 'open skies' style agreements, where these are assessed to be in the national interest. Mr. Lucas added that in all cases the Australian Government will seek to ensure capacity available under our bilateral agreements remains ahead of demand so that airlines are free to make commercial decisions about the frequency and types of services they operate. Such an approach provides airlines with the regulatory certainty to enable them to commit to long-term growth plans in the Australian market. Mr. Lucas went on to add that travellers and Australia's tourism and trade sectors will continue to benefit from the opening up of Australia's international markets to more competition. The services of Qantas, Jetstar, Pacific Blue (a Virgin airline registered in New Zealand) and, most recently, Virgin Australia, provide Australia with a strong competitive presence in international aviation markets and the Government supports consolidation and expansion of this presence. Traffic rights that other countries have to offer will remain an important consideration in Australia's air services negotiations, as will the objective of maintaining a strong and vibrant Australian based aviation industry. The Government is seeking to move to a new generation of liberalised air services agreements with like-minded partners. These include agreements that go further than the traditional exchange of

traffic rights to include open capacity, beyond and intermediate rights, safety, security, environment, competition and investment provisions.

Currently there are secondary foreign ownership limits that apply to Qantas, but not to other Australian international airlines. The Government will consider amending the *Qantas Sale Act 1992* to remove these limits so that the same investment regime will apply to all airlines. This will increase Qantas's ability to compete for capital and to have more flexible equity arrangements consistent with other Australian international airlines. However, the Government will ensure that Qantas continues to be majority-owned by Australians and that its major operational base remains in Australia.

The Government will also move to encourage international airlines to increase services to Australia's secondary international gateways. Mr. Lucas stated that Australia's regions have further potential to grow their inbound tourism markets and that by providing airlines who serve regional airports with greater access to the major gateway destinations of Sydney, Melbourne, Brisbane and Perth, the Government will provide further incentives to airlines to better service destinations such as Cairns, Darwin and Broome.

The International Air Services Licensing Commission

The role of Australia's International Air Services Licensing Commission (IASLC) is to approve (or not approve as the case may be) applications from airlines – including Australian airlines, for route capacity to and from Australia in line with Australia's international aviation policy. The IASLC considers a range of factors in granting additional capacity to airlines such as existing capacity, actual seat occupancy percentage and the state of the market, competition and fares. Decisions to grant capacity, which are usually time bound, are termed a 'deliberation'. An airline cannot make application to the IASLC to block the action of a competitor from gaining an allocation, or once having received a deliberation, not use the allocation. The highly competitive nature of the airline industry can make for certain route allocations to become bids. Route allocations determined by the IASLC are separate issues to gaining slots from airport companies which give an airline a landing and departure time including parking

its aircraft at a gate. The IASLC response to questions regarding capacity granted to Gulf State airlines gave the following response:

“Air Services arrangements between Australia and other countries are negotiated in line with the Government’s policy settings outlined in the 2009 National Aviation Policy White Paper. The national interest is paramount when considering what to agree with other countries. This takes into consideration the interests of the broader Australian economy, including Australian carriers which include Qantas and Virgin Australia”. Mr. Lucas added: “Since UAE carriers first gained access to the Australian market in 1996 they have grown consistently over the years utilizing the phased increase in capacity. The Middle East has proven to be a convenient and popular transit point for those travelling between Australia and the UK/Europe. Australia’s exports to the region has seen strong growth and approached A\$7 billion at the end of 2009. The Government recognizes the economic, trade, and tourism benefits of liberalisation and access to travellers to important trading partners like the Gulf States”.

5.2.4 Australia – EU Agreement

At the Australia Pacific Aviation Summit held in Sydney 3-6 August 2009, Transport Department Secretary, Michael Mrdak told the Summit that Australia’s white paper on aviation due later in 2009 would not necessarily mean a raft of new policies in all areas. An Australia-EU comprehensive air agreement would replace bilateral agreements with 17 of the 28 member states. An open skies agreement would remove most, if not all, regulatory restrictions on Australian and European airlines operating between the two destinations. The Secretary added that without the agreement, Australian and EU carriers faced diminishing opportunities in this part of the world and airline benefits would flow from such an agreement such as access to more intermediate and beyond traffic rights; the ability of EU carriers to fly to Australia from any EU country; and greater opportunities for cross-investment and consolidation between Australian and European airlines.

On 30 April 2008, the Australian Government Minister for Infrastructure, Transport, Regional Development and Local Government announced the signing of an agreement in Brussels between the European Community and the Government of Australia on certain aspects of air services – also known as the Horizontal Agreement. This new agreement recognises the existence of a single

European market for air transport links to and from Australia and provides for the designation of airlines based on their EU status rather than their Member State's nationality. At the time of the signing of this new Agreement, Australia held bilateral air agreements with 16 EU Member States.

A further meeting was held on 30 November 2009 between the Minister and the European Commissioner for Transport, Antonio Tajini in Rome to progress agreement with the European Union on an open skies agreement, as well as setting a global framework for managing the aviation industry's carbon emissions. Minister Albanese said that "achieving such an outcome would remove many of the existing regulatory limitations on Australian and European airlines operating between our two continents, allowing them to offer more flights and a wider range of services at the most competitive prices" (Australian Aviation Express, Issue No.298, 30 November 2009). In addition to access and capacity rights, the agreement Australia sought a basis for enhanced cooperation in the areas of aviation safety and security, competition law and environmental protection.

The government stated that the new Agreement would remove the outdated impediments and limitations on air services between Australia and Europe and could address issues around competition, environmental protection, and safety and security. The government expected that the new Agreement would lead the way to encouraging the return of European carriers or new entrants subject to them being registered in the EU or Australia. In removing restrictions, the new bilateral agreement has created a strategic window opportunity for entry into the Australia-Europe market subject to the ownership of the airline being at least 51% owned in the originating country (Australia) or the EU. The argument for "open skies" would modernise Australia's air agreement with the EU and recognise that it is no longer appropriate to be dealing with individual countries within Europe but one large regional trading bloc. "Open skies" would in effect open any European gateway to additional services by an Australian airline and provide a more direct air service between say Australia and Greece, Italy and Croatia that would better serve the ethnic communities. The EU is Australia's largest aviation market, accounting for 20% of Australia's inbound and outbound passengers and a fifth of Australia's total airfreight exports. From 2003 to 2007, annual passenger numbers

have grown by an average of 5 per cent to reach 4.5 million people in 2007. Table 5.1 below shows the market shares in percentage terms of airlines competing for Australia-EU traffic. It should be noted that the Qantas/British Airways share has been in decline compared to the increase by Emirates Air. Visitors to and from Australia's four largest European markets – France, Germany, Ireland and the United Kingdom, are forecast to increase from 1 million to 1.39 million by 2016 with economic benefits to Australia expected to increase from \$5.3 billion to \$7.1 billion.

Criticism of Open Skies

In mid 2011 Qantas announced it was losing money on its international business and would need to restructure including moving jobs to Asia (Australian Aviation Express, Issue No.367, 11 July 2011). In an interview with Mr. Dick Smith, entrepreneur and former chair of the Civil Aviation Safety Authority, Mr. Smith was scathing in his criticism of Australian government policy and its open skies regime. Mr. Smith stated that high wages and government policy that opened up aviation routes to too much competition had put pressure on Qantas mainline operations in danger. Mr. Smith likened the situation to manufacturers who had been forced to relocate offshore because of an inability to compete with low-cost competitors (Creedy 2011c). Other respondents interviewed for this research were divided in their opinion and resigned to the fact that Australia had competition in its market place although stated that a strong Qantas had flow-on effects across the aviation sector such as new apprenticeships, engineering expertise, and retention of other skills. Respondents felt that the government's policy position was optimistic and perhaps unrealistic given that it had no impact on Asian and Gulf state "fifth freedom" airlines that whilst excluded from the Australia-EU open skies agreement because they are domiciled outside these regions, but by exercising their bilateral agreements with Australia and the EU would continue to hub traffic via their home base.

Besides the policy position of the Australian Government and views held by CAPA, other respondents were asked what impact the Australia – EU open skies agreement may have on the future of aviation between the regions. Most respondents felt it would be fairly minimal, and some quotes were:

“Asian and Gulf State carriers had been very adept in winning a share of Australia-Europe traffic through a range of factors such as service offering, convenient scheduling, optional stopovers and competitive pricing. They will continue to keep pressure on Qantas because they have a lower cost structure.”

“Asian and Gulf State airlines generally have a better product such as in-flight service but since Qantas introduced the A380 service had improved”.

“Asian and Gulf State airlines operate into numerous European capitals which give them an advantage compared to Qantas/British Airways which goes to London Heathrow or Frankfurt”. For instance, if you want to travel to a European city it is easier to get there with an Asian or Middle East airline than the hassle of transferring at London Heathrow.

“Stopovers in Dubai and Abu Dhabi are different to Singapore and Hong Kong so they have some appeal to travellers looking for something different”.

“Cathay and Singapore Airlines have such a good, consistent product they have little to fear from an Australia- EU open skies agreement”

“With Singapore’s proposed longhaul, low cost (as yet unnamed) airline they will be able to feed traffic from Australia into Singapore and then on to their low cost/low fare airline”.

It was felt that the entry of a longhaul low cost carrier between Australia and Europe would only represent a small fraction of the available capacity. If there were two services a week to Athens and Rome it would represent around 1,200 seats (one way) out of over 70,000 seats per week or 1.7% of the market. Respondents noted that many Asian and Gulf State airlines were operating at least two and three services per day from Australian gateways. Respondents were asked how likely did they think a European airline would avail the opportunity created by a new Australia-EU air agreement, there was a negative response. Comments made include the following:

“The airline industry as a whole is facing a difficult time given world events and record high fuel prices so they are thinking more about consolidation and survival”.

“The cost of the operation – fuel, crew changes and layovers make it difficult to turn a profit on the Europe-Australia journey. There are better opportunities in other markets such as the Trans Atlantic or operating to China”

“European carriers are not looking past south Asia and as they are tied to strategic alliance partners would prefer to feed and receive traffic at a major hub point than add 14-16 hours additional flying time to fly into/out of Australia”. Table 5.2.1 shows the market shares of airlines serving the Australia-EU market between 2005 and 2009. In particular, it should be noted the decline in share of Qantas by 3 percentage points and its alliance/code share partner British Airways from 9% to 6% and the rise of Emirates Air from 15% to 20% of the market.

Table 5.2.1 Market share of airline traffic: Australia/Europe 2005-2009

Airline	2005	2006	2007	2008	2009
Qantas	31%	31%	29%	28%	28%
Emirates	15%	17%	18%	19%	20%
Singapore Airlines	14%	15%	14%	14%	13%
British Airways	9%	7%	7%	6%	6%
Malaysia Airlines	8%	7%	6%	5%	5%
Cathay Pacific	4%	5%	6%	6%	6%
Thai Airways	2%	2%	3%	3%	3%
Virgin Atlantic	2%	2%	2%	2%	2%
Etihad				2%	4%
Other	15%	15%	15%	15%	13%

Source: created by the author from Tourism Australia data, Centre for Asia-Pacific Aviation Studies data, Airline data sourced from airline annual reports.

The policy dilemma for aviation bureaucrats is that in setting an open skies agreement it may have little effect on encouraging European airlines to return to Australia. Over the past decade it has been more noticeable for the number of European airlines that have exited Australia. This is tabled in Table 5.2.2 below.

Table 5.2.2 EU carriers that have withdrawn from Australia

Carrier	Country of Origin	Airports in Australia and number of frequencies	Year exited Australian market
Austrian Airlines Group (merger of Lauda Air into Austrian)	Austria	Sydney and Melbourne	2007
Lufthansa	Germany	Sydney and Melbourne	1995
Olympic Airways	Greece	Sydney and Melbourne	Last flight from Australia 1 November 2002
JAT- Yugoslav	Former Yugoslav Republic (carrier still exists under Serbia)	Sydney	1991
AOM UTA	France	Sydney	Operated between 1995 – 2001 Withdrew 1990 – merged with Air France who operated until 1995
Alitalia	Italy	Sydney and Melbourne	Commenced services in 1960 and last flight from Australia 31 October 2000
KLM Dutch Airlines	The Netherlands	Sydney	Commenced services in 1938 and withdrew in 2001

Source: extracted from airline annual reports, airline data and publications by the researcher

5.2.5 Gulf State airlines – the elephant in the room

A perplexing issue surrounding the Australia-EU open skies agreement is the separate agreement between Australia and the United Arab Emirates (UAE) that is unparalleled in Australia's aviation history. Considering that visitor arrivals from the UAE is not substantial and tends to be concentrated in July-August on Australia's Gold Coast when residents of the Gulf States are seeking to escape intense heat, it is puzzling why Australia's IASC has granted so much capacity to carriers such as Emirates Air, Etihad Airways, Gulf Air and more recently Qatar Airways. Collectively, these four airlines operate more than 85 flights a week from Australia to their home port and more significantly use their home port to hub passengers on to European destinations. For example, Emirates Air operates to over 30 European destinations from Dubai and serves no less than six United Kingdom airports. Etihad Airways and Qatar Airways serve a lesser number of European capitals but nonetheless capitalize on their fifth freedom rights. Qantas operates solely into London Heathrow and serves Frankfurt four times per week. Whilst technically, Gulf State airlines do not hold traffic rights between Australia and the EU this is circumvented by application of airline agreements held with Australia and with the EU. These airlines are able to use the age-old freedoms of

the air – in this case 5th freedom traffic as discussed in chapter 2. Asian carriers operate in a similar manner in exploiting 5th freedom traffic but can be less criticized in view of traffic generated by their home country compared to the UAE.

When asked to comment on traffic rights granted to Gulf State carriers, the General Manager, Aviation Industry Policy, Department of Infrastructure, Transport, Regional Development and Local Government, Mr. Borthwick, defended the Australian Government's position. Mr. Borthwick stated the Department was doing what it considered best for Australia in terms of trade, tourism, economic development and co-operation and not least competition. When questioned further about there being no benefit for an Australian airline, Mr. Borthwick stated it was up to (Qantas) to determine whether they wished to avail the agreement and use the rights available. It should be noted that as part of Virgin Australia's international expansion the airline commenced operations to Abu Dhabi in April 2011 and has entered into a code-share agreement with Etihad thus providing customers with a service into European capitals.

Opinion concerning the presence of Gulf State airlines was divided amongst respondents interviewed for this research. Generally most respondents did agree that the rise of Gulf State carriers was a threat to Qantas in the Australia- EU market and that Qantas had a higher cost base because of inherent costs such as labour and maintenance and the Australian industry was still highly unionised. Overall, there was general agreement amongst respondents that the new era of competition on the Australia/Europe route would intensify from the expanded capacity and frequency of Gulf State airlines. Comments made to the researcher included:

“The presence of Gulf State carriers in the Australian market has kept the market competitive which is having the effect of stopping Qantas from price gouging”.

“There has certainly been a large increase in capacity granted to Gulf State airlines but I doubt whether they are doing much for Australia's tourism industry in bringing new traffic into Australia. Rather, I think they are exploiting the outbound market by capturing Australians heading to Europe”.

“I don’t look at Emirates Air as a UAE airline. They are a global airline that employs many different nationalities such as pilots and in the cabin and create employment opportunities wherever they operate into. They pay airport charges, operate lounges, buy fuel and other consumables in places they fly to”. Some respondents noted that Emirates had shown their long term commitment to Australia through its sponsorship program of prestigious events such as the Melbourne Cup and the Australian Open Golf championship.

The researcher’s own observation was that despite the Australian government’s desire to encourage airlines to operate into Australia’s regional international airports with unlimited access, the reality was that apart from the Australia-New Zealand market, airlines serving Australia from Asia and the Gulf States operated into state capital cities where there was a larger market and greater frequencies could be maintained. Arguably, services to regional international airports has gone backwards as evidenced by the number of carriers that have withdrawn services to Cairns over the past five to ten years.

The Centre for Asia Pacific Aviation Studies supported the Australian Government policy. In an interview with the Director, Dr. Peter Harbison, Harbison stated that 30 years ago he used to think protectionism for airlines had its merits – the airline industry was then still maturing into what it is nowadays. Dr. Harbison added that competition was good for the market and that Australian airline consumers benefitted. Dr Harbison’s view was “so what” if the government of another country subsidises its airline and offers cheaper fares and a better service in our market. Dr. Harbison cited the Pacific as an example where up to 2009 only Qantas and United operated (directly) between Australia and the USA and economy class air fares ranged between \$2,500 at their lowest and up to \$2,900. Once Virgin and Delta entered the market fares dropped to the West Coast to just under \$2,000.

5.2.6 Carrier-within-a-carrier (CWC) strategy

Respondents were specifically asked for their comments on CWC strategy. All respondents were unanimous in their view that Qantas had made the right strategic move in establishing a low cost subsidiary airline within the Qanats Group. Some

respondents raised the industrial relations aspects concerning the different pay scales and work conditions between Jetstar and its parent owner which was an overhanging issue for airline unions; however, respondents cited the need for Qantas to have an airline like Jetstar to combat Asian competition. Respondents agreed that Jetstar would likely be the Qantas strategy to re-enter southern Europe but its impact on the market would not be significant in the market but enable Qantas to be price competitive and arrest any further market share loss to sharper competitors. Respondents were very aware of CWC strategy being deployed in the Asia-Pacific region and factors such as liberalization, the growth of air travel, new routes and destinations and product differentiation all aided the CWC strategy. Respondents were in broad agreement that the low cost business model operated by Qantas with Jetstar had proven successful but were unsure about the success of Singapore Airlines with its ultra low cost Tiger Airways brand. Some respondents went so far to suggest that Jetstar could emerge as the dominant international airline in 5-10 years time taking over more Qantas routes. Respondents had also noted that Air Asia had given up its independence with a share swap agreement with the state-controlled Malaysian Airlines which would strengthen both airlines against competition in the region. Thus, in terms of Objective 4 the CWC strategy of two brands/one airline and product differentiation is viewed as a strategic response by Qantas to Asian and Gulf State competition.

5.2.7 Lessons learned from past lowcost longhaul failures

Chapters 1 and 2 have drawn references to past low cost longhaul failures and some of the reasons why various airlines failed. The most well known of these failures is Laker Airways although it may be harsh to judge Laker as a failure given that it was after his collapse British courts awarded Laker damages for predatory conduct against Laker by by some well established airlines. Laker's "Skytrain" product existed for just over 4 years across the Atlantic and carried over 4 million passengers.

When this question was asked of respondents as to why independent longhaul low cost airlines have failed the most common response was "under capitalization"; "trying to grow too fast"; fine margins which place the airline in a vulnerable

position when fuel prices spike without cost recovery”, “under-pricing” – selling the service below cost; “not enough understanding of costs”; poor business planning”; “entering markets where the competition is already strong”; “horizontal diversification – wanting to evolve from a tour operator or charter operator into an airline”.

When probed, most respondents were able to cite the collapse of Oasis Airlines of Hong Kong which lasted for 18 months (2007-08) operating between Hong Kong and London Gatwick. Oasis entered a route that was highly trafficked but also had some formidable competitors. Oasis had no real understanding of the industry and an unrealistic business model (Ballantyne (2008)).

Zoom Airlines of Canada grew out of a tour operation and charter operations leasing aircraft to operate across the North Atlantic from Canada to mainly the UK. Zoom sought to avoid a direct confrontation with Air Canada, the country’s national airline and was buoyed by its early success but rapid expansion into becoming a scheduled airline placed the airline under too much strain and once aviation fuel prices spiked the carrier’s cost dramatically increased which brought about a rapid end to the airline when airport companies owed money and the aircraft leasing company foreclosed on the airline. Unfortunately Canada has a poor history of second (international) airlines. Former Canadian Pacific Airlines – part of Canadian Pacific Rail were never granted the most lucrative routes and were forced into a merger with Air Canada. CP Air used to operate into Sydney. Another Canadian airline, Canada 3000 which operated DC10’s also came into Sydney also failed.

All respondents agreed with the statement that it is very difficult for an independent airline to launch from start-up and stay in business. Unlike many short haul LCCS that establish new routes and avoid direct competition with FSAs there are few new opportunities with strong traffic flows for longhaul low cost new entrants to enter. Respondents were fairly unanimous that no independent airline could endure in the Australia-EU market. A more recent example is Lauda Air which had established itself as a quality airline but ultimately rising costs forced the airline into a merger with national airline, Austrian Air which has since

being absorbed by the Lufthansa Group. The raising of capital, start-up costs and not least the depth of competition already in the market that included government subsidized carriers were all factors weighing against such a move. Closer to home, respondents were asked about the launch of Air Australia and its repositioning from Strategic Airlines into a medium to longhaul low cost airline operating selective routes from Brisbane and Melbourne to Asian destinations as well as to Hawaii. Respondents were fairly unanimous that this was a move doomed to fail and the venture was relatively shortlived before its collapse. Some respondents referred to the international expansion of Ansett Australia in the 1990s into Asia as Australia's second international airline and that as an independent, private airline (Air New Zealand acquired 50% of Ansett in 1996) which incurred heavy losses.

The airline business is a global industry and one where alliances and consolidation are occurring at quite rapid pace. The airline industry is different to most other industries. Turnbull (1995) and Dobson's "Flying in the face of competition" (Dobson 1995) explained these differences such as business transcending across borders, the regulatory environment, the perishable nature of the product, protectionism by governments, different accounting standards and practices. Turnbull (1995) could not have stated the situation more succinct when he stated:

"the airline business is not like driving your motor car when you jump in your car and start the ignition without checking under the bonnet – you cannot just roll an aircraft out of the hangar, start the engines and expect everything will fire. The airline industry is just not like that. Maintenance checks and airworthiness is paramount to the business. There is a great deal of behind the scenes activity going on just to keep one aircraft in the air."

5.2.8 Conclusions

The past decade has seen the emergence of the low cost airline industry and its different business model to full service airlines. LCCs have shown their adeptness, flexibility and agility to seize on strategic window opportunities as a consequence of liberalization, full service airlines abandoning routes, a demand for cheaper air travel, and the availability of aircraft under favourable lease arrangements. Despite the success of LCCs – and there have been many failures in different parts of the world, the airline industry is over supplied with too much

capacity and beset with mounting losses by most of the world's airlines. No more than 20 airlines out of 200 (10%) have made profits in the past five years and although a number of external "shocks" have been felt by the industry, it is more often operating in red ink than black ink.

The open skies environment does suggest that a longhaul low cost airline will take advantage of the strategic window subject to gaining a cost advantage (Objective 1) and by differentiating its product to full service airlines to capture a small niche in the market. However, the presence of Asian and Gulf State "fifth freedom" carriers coupled with their lower costs (below Qantas) has made for a highly competitive market. Thus, it is highly probable that Jetstar will be the vehicle for Qantas to expand its longhaul network despite Qantas now operating the world's most fuel efficient longhaul aircraft – the A380. The Qantas orders to acquire the new but much delayed Boeing 787 and deliver half of its 50 on order to Jetstar does point to this aircraft being operated by Jetstar internationally. The Boeing 787 is the right size (under 300 seats) and is considered the most fuel efficient aircraft ever produced at some 5-7 per cent less than any existing commercial airliner. Jetstar's experience in operating medium haul routes between Australia and Asia should serve the airline well in developing its plans including its marketing strategy to enter the Australia-EU market.

This chapter highlights that Australia's International Air Services Licensing Commission as the approving body for airlines seeking capacity expansion to and from Australia whilst appearing to be acting independently is obliged to follow international aviation policy formulated by the Aviation Branch of the Department of Infrastructure, Transport, Regional Development and Local Government. In 2007 the Department released a Green Paper and a White Paper followed in late 2009. Despite the change of Australian government in late 2007 there has been no significant major policy shift in Australia's position which is one of guarded caution in progressively moving to "open skies" where it suits Australia's interests.

Australia's geographic position "at the end of the line" limits the benefits that can be gained from open skies and there are limitations. In many respects the

adoption of an open skies agreement with the EU is recognition of the EU as single entity trading bloc rather than negotiating with individual countries.

In conclusion, it is highly likely that the Australia-Europe “open skies” agreement has created a strategic window opening for the carrier-within-a-carrier strategy in which Jetstar extends its present medium haul services to Asia to become a longhaul, low cost/low fare airline. As the theory tells us, the window opens and closes and in this context, Jetstar would need to move ahead of a proposed but yet unveiled Singapore Airlines initiative to launch a low cost longhaul subsidiary airline between Singapore and Europe. For Gulf State airlines, they will continue to build market share and an aura of service quality, retain their cost advantage and operate unhindered by the Australia- EU open skies agreement which is likely to result in some lively marketing.

As a concluding comment to this part of the chapter it is apparent that the airline industry will continue to undergo change and readjustment in part from the forces of government liberalization policies, airline consolidation and strategic alliance building and that only the strong will survive. In this context, Qantas, despite its 90 year old history has no entitlement to expect favourable treatment from the Australian Government which like manufacturing and other industries has exposed Australia to greater competition.

Chapter 6

CONCLUSIONS AND IMPLICATIONS

6.1 Introduction

From this research we have learned that whilst an “open skies” policy between Australia and the EU does in theory provide unfettered access and is designed to encourage new entrants into the market, the longhaul Australia-Europe market is well served by many full service airlines which has the effect of creating an entry barrier. Whilst the open skies agreement applies only to airlines domiciled and majority owned in either Australia or the EU, it does not restrict or inhibit the rise of Gulf State airlines (Emirates Air, Etihad Airways and others) as well as Asian carriers exploiting their fifth freedom traffic rights carrying end-to-end traffic via their home hub point. As explained in chapter 2, Gulf State and Asian airlines have bilateral agreements with Australia and the EU and can in effect circumvent the need to have traffic rights Australia-EU by virtue of the combination of the two agreements. Furthermore, Gulf State and Asian airlines with lower costs than Qantas has placed the Qantas Group under increasing pressure. Qantas has seen its market share of Australia-EU traffic decline over the past five years but in a market that has experienced over 5 per cent growth per annum and is still expected to grow by around this mark over the next five years.

The research undertaken strongly suggests that the carrier –within-a-carrier strategy holds out a better chance of combatting increased competition. In this respect, the Qantas Group plans to launch Jetstar services to southern Europe. Most significantly, the research has examined what elements of the short haul low cost model are transferable to longhaul airline operations and has and determined that a cost differential can be attained relative to full service airlines. However, unlike the comparisons made for short haul operations which range from 25-45 per cent cost differences, the operating characteristics of longhaul operations has realistically determined a figure of around 17 per cent could be attained on a per passenger seat kilometer basis. This figure was validated by two independent sources.

Qantas would need to the carrier withinahul creates an opportunity for an Australian-based low cost carrier to enter the Australia-Europe market. The research conducted has found that (a) a low cost entrant could enter this market through attaining a cost advantage compared to full service airlines; and (b) many elements from the short haul model require adapting to suit longhaul operations and cannot be automatically transferred given the different operating characteristics of longhaul operations.

This chapter commences with a review of the research undertaken for this thesis, outlining the purpose of the research that highlights the application of the strategic windows concept in an airline setting. Several researchers (Forsyth 2007; Francis *et al.* 2006; Francis *et al.* 2007, Morell 2008; Wensveen and Leick 2009) have observed that not all cost saving elements from the short haul airline model can be applied to longhaul, low-cost operations. This research advances the debate and has answered the important question that whilst a cost advantage is not the same as short haul operations (as expressed in cents per available seat kilometre) a cost advantage can be attained by a longhaul low cost airline compared to full service airlines operating between Australia and Europe. Although the idea of a low-cost, “no frills” *long-haul* airline is not new, most previous attempts have been pioneered by entrepreneurs. Chapter 5 addressed the issue of failures and identified the reasons why past attempts have been unable to be sustained.

This research has highlighted that despite a trend towards open skies much of international aviation is strictly governed by a system of bilateral air agreements. It is often perplexing to the outsider why the restrictive nature of air services exists and why airlines cannot fly where they choose compared to other industries and the movement of free trade. Governments for various political, social and economic reasons have always liked to exercise some influence over their national airlines and a major impediment to low-cost longhaul is the system of airline bilateral agreements and regulatory controls that governs much of international aviation (Dobson 1995; Forsyth 2006; Holloway 2003). The question is how liberal should aviation markets be? The Australia-EU open skies agreement removes former barriers and the separate agreements Australia previously negotiated with member states of the EU. Whilst the open skies agreement has

been touted by aviation bureaucrats as a new breakthrough and seen as a possible boost to tourism from Europe to Australia, the reality may be different. Respondents interviewed in this research expressed doubts concerning the benefits to Australia and considered that whilst Qantas stood to gain by being able to (re)launch services to southern Europe and possibly establish a second gateway into the UK. The Australia-EU market is well served by Asian and Gulf State airlines that whilst technically fall outside the scope of the Australia-EU open skies agreement operate in this market by combining traffic rights held with Australia and with the EU termed 5th freedom traffic.

This thesis has presented two case studies based on successful low cost airlines Jetstar and Air Asia that exemplify the application of the strategic window concept. Both carriers have seamlessly transitioned from short haul operations to medium and longhaul operations and exploited strategic window opportunities such as opening new routes, establishing new markets and competing against full service airlines based on their cost advantage. The discussion in chapter 5 focuses on Australia's international aviation policy and in particular its policy of creating capacity ahead of demand which create strategic window opportunities and included comments from key respondents interviewed. The second part of chapter 5 is based on establishing a cost model differential relative to full service airlines for the entry of a low cost longhaul airline operating Australia/Europe. This part also examines the core fundamentals of a low cost airline and the transferability of elements associated with short haul low cost airlines and their applicability to low cost longhaul airline operations. It can be seen that not all elements applied by short haul LCCs can be transferred to longhaul airline operations and that some adjustment is necessary because of the very different type of operation.

The research fills important gaps in the literature in examining the concept of strategic windows in an airline setting, provides greater explanation and clarity of international traffic rights that govern airlines in terms of where they can fly, how often and with what capacity, and the move towards open skies policies and lessons learned from past failures of low cost longhaul airlines. Finally, this

chapter will suggest future directions and scope for research spanning the application of the strategic windows concept in the airline industry.

6.2 Review of Research

Much of the debate surrounding the LCC airline sector is whether it is a concept, a phenomenon, or a revolution. Blaha (2003) described the LCC sector as “evolutionary” citing factors such as deregulation, economic change, and “Southwest copycats” whilst Calder (2002) referred to the dramatic growth of the LCC sector as a “revolution”. Schnell (2003) questions whether the effectiveness of airline strategies change leading to new models. Jarach (2004) refers to the ‘low-cost phenomenon’ by contrasting the operating environment and outcomes between what he termed “LCCs on the attack and national airlines on the defence”. Jarach (2004) discusses “the pillars” of LCCs stating that LCCs provide “a new, simplified value proposition to a wider market potential” (p.24). Alamdari and Fagan (2005) acknowledge LCCs as a concept but then proceed to more fully describe the sector as a business model that has evolved and being reworked and refer to a “set of principles”, a “business strategy” and observed that the original low-cost model has been modified over the years and that low cost carriers were tending to follow a product differentiation strategy as opposed to cost leadership on which the original model was based. The LCC airline sector is succinctly described by Donne (2000) who observed that LCCs need to be adaptive in the short term and highly competitive in the long term. In this context whilst a cost advantage for a longhaul low cost entrant is important, the Australia-EU market is well served by many full service airlines.

Compared to the rich body of literature on short haul low cost airlines very little work has been undertaken of a prospective longhaul low cost market. As discussed in the earlier chapters, studies by Forsyth *et al.* (2006), Forsyth (2007), Mason and Morrison (2008); Morell (2008); Wensveen and Leick (2009) are somewhat speculative and generalised although Wensveen and Leick (2009) acknowledge that the dynamics driving the airline industry call for new and different business models in the longhaul market. Mason and Morrison (2008) highlight the point that airlines that called themselves “low cost” did not

necessarily have the lowest costs, and that within the sector a number of different business models were being practiced.

In chapter 2 the role of the strategic windows concept within the strategic management literature was analysed and discussed and used to explain new route entry by low cost airlines. This was followed by a review of business models to explain the differences between low cost airlines and full service airlines. Although there is a broad agreement on a common set of core principles, the fundamental problem as Mason and Morrison (2008) observed is that no consistent or standardised approach exists in analysing airline business models. The concept of “*Strategic windows*” belongs in the strategic management and strategic marketing literature. The term “strategic windows” is used to describe that there are often only limited periods when the ‘fit’ between the ‘key requirements’ of a market and particular competences of a firm competing in that market is at an optimum (Wilson and Gilligan 2008). Amongst the earliest writers on strategic windows was Abell (1978) who described the strategic window concept in terms of marketing management practice, and in particular strategic marketing activities around predictors of future patterns of market evolution and stressed the importance of the timing (both entry and exit) of any given strategy within the firm’s abilities (Abell, 1978, 26).

6.3 Purpose of Research

The purpose of this research was to address the research objective posed in chapter 1, (Research Aim and Objectives, pages 15-16) arising from the research problem which was to determine whether a longhaul, low cost airline based on the core principles of low cost can achieve a cost advantage compared to FSAs and what transferable elements from the short haul model can be adapted for longhaul operations. For this purpose the focus of the research is applied to the Australia – EU market.

Chapter 1 outlined the significance of the research problem in terms of the strategic windows concept applying to the entry of a longhaul low cost airline entering the Australia/Europe market. A prerequisite for market entry is to have lower costs than competitors in a market dominated by existing, well established

full service airlines. Airlines competing in this market do so using a range of marketing strategies such as “early bird” advance booking specials, stopover breaks, European destinations served, service factors such as premium economy class and business class travel and price.

The justification for the research focused on seven issues.

1. The continuing rapid growth of the low-cost airline sector, its cost advantage compared to full service airlines and its emergence into medium haul routes and planned for longhaul routes;
2. The doubts expressed by other researchers concerning what elements from the short haul low cost airline model can be transferred to longhaul airline operations and to determine whether longhaul, low cost can achieve a cost advantage compared to full service airlines;
3. The strategic window created by the Australia-EU “open skies” air agreement and what this may mean in terms of new entrants or the return of European airlines back into Australia.
4. Australia’s international aviation policy and in particular the granting of generous traffic rights by Australia’s IALC to Gulf State airlines;
5. The past failures of independent longhaul low-cost start-ups and reasons why they have failed;
6. The success of the carrier-within-a-carrier strategy being adopted by Qantas and other major airlines; and
7. The fluid nature of the airline industry and evolving trends.

Chapter 2 highlighted that route entry by new low cost airlines is attributable to deregulation, government action to foster competition, economic growth such as tourism and demographic/population changes, the availability of aircraft and favourable lease terms, new business models including the application of IT to facilitate bookings, payment and check-in, new industrial agreements that gives the employer greater flexibility, and the use of promotion to stimulate the market through low fares such as “seat sales” and other promotional gimmicks. Several researchers, notably Blaha 2003; Doganis 2005; Gillen and Morrison 2005;

Lawton 2002; Mason and Alamdari (2007) and Tretheway (2002) posit that the LCC model has emerged in response to demand for cheaper air travel by travellers who are willing to trade off the extras provided by full service airlines for a lower price. To complete the literature review, the key marketing elements of LCCs, the differences between LCCs and FSAs, facilities expectations and use of airports was analysed. The final part of the chapter tabled much of the academic work to date but reveals that only minimal work has been conducted into examining the transferability of the short-haul LCC model to long-haul airline operations and despite a move towards open skies, bilateral agreements and freedoms of the air still prevail over much of international aviation which is less understood.

To identify a suitable methodology, chapter 3 commenced with an analysis of research paradigms. Chapter 3 reviewed a number of research paradigms. Both *realism* and the phenomenological paradigm were found to be the most appropriate paradigms on which to base the research undertaken in this thesis. Given the research problem as outlined in Chapter 1, the phenomenological paradigm recognized the following parameters identified by Hussey and Hussey (1997:54).

- It tends to produce qualitative data: it takes an expansionist stance.
- Ideas are developed through induction: it looks at the totality of each situation.
- It focuses on meanings and tries to understand what is happening.
- It uses multiple methods to establish different views of the phenomena.

The characteristics of the *realism* paradigm are only partly consistent with the aims of this study in that it attempts to discover the 'real' world by critically evaluating and testing what knowledge we do have concerning the phenomenon of interest. It employs an *inductive* research strategy where the evidence leads to the conclusion, in contrast to deduction where the inference must be conclusive - that is, it must be true and valid (Emory 1985). Provided systematic observation is employed, the conclusions reached using *inductive* research are no less scientific than those reached using deductive research. The difference is that in using a solely deductive approach, it is impossible for the conclusion to be false provided

the premises are true (Emory 1985). Conclusions reached using the *inductive* approach, on the other hand, are neither true nor false but are valid until disconfirmed. *Inductive* conclusions are relatively imprecise but advance knowledge by improving understanding (Dubin 1978). Therefore, given that the *realism* research paradigm is objective, generalisable and testable, a research strategy based around this paradigm lends itself to investigating the research problem, even though *realism* only explains things in a probabilistic and imperfect way (Guba & Lincoln 1998). Even though the *realism* paradigm satisfies the criterion of objectivity, it is subject to criticism on the grounds that it is partially reliant on qualitative data. However, it is accepted that the main aims of scientific inquiry are identification, description, explanation generation/association, explanation testing/prediction and prescription/control (Crabtree and Miller 1999, p.7) then it becomes evident that quantitative methods alone cannot satisfy all these aims in every type of research. Consequently, there is an increasing acceptance that research methods are no longer a case of 'either/or', and that a combination of qualitative and quantitative research methods is likely to produce a more holistic research outcome.

The literature review was used in this research to address the research problem as identified by Saunders *et al.* (2000:46):

- To include the key academic theories within the chosen area: these were identified in chapter 2 as the strategic windows concept as a subset of the strategic management and marketing literature.
- To demonstrate that your knowledge of your chosen area is up-to-date: as demonstrated in chapter 2.
- To show that your research relates to previous published research: as shown in chapter 4.
- To assess the strengths and weaknesses of previous work including omissions or bias and take these into account in your arguments: as shown in chapter 2 and 4.
- To justify your arguments by referencing previous research: as will be shown in chapter 2 and 4.

- Through clear referencing, to enable those reading your project report to find the original work you cite: as per the references supplied in this document
- By fully acknowledging the work of others you will avoid charges of plagiarism: as per the referencing and bibliography supplied in this document.

Specific research questions

Given the research problem identified above, the aim of this thesis is to *examine if the strategic window opportunity created by “open skies” creates an opportunity for an Australian-based low cost carrier to enter the Australia-Europe market.*

The specific research questions addressed are:

1. Assess the size and scope of the strategic window that has opened with the new Australia- EU open skies agreement for the entry of an Australian based low-cost, budget airline to enter this market.
2. Given the success of Qantas with its carrier-within-a-carrier strategy on routes between Australia and Asia, can this segmentation model be extended to longhaul operations to Europe?
3. Can a longhaul low-cost airline entrant achieve a cost advantage compared to full service airlines?
4. What elements of the short haul model can be transferred to longhaul airline operations and determine what differences apply.
5. Build an understanding of the reasons for failure experienced by past low-cost longhaul failures to avoid repetition in the future.

Conclusions 1 Relating to Question 1: Assess the size and scope of the strategic window that has opened with the new Australia- EU open skies agreement for the entry of an Australian based low-cost, budget airline to enter this market.

The signing of a new agreement between Australia and the EU recognises the EU as one trading bloc recognises the shift in airline ownership to privatisation and the maturity of the industry to implement more “light-handed” regulation. “Open

skies” modernizes a number of changes to the former bilateral agreements and has removed many previous restrictions such as route application from a home country only; capacity and frequency restrictions, pricing of seats, and flights to beyond points subject to third party agreement; self-handling provisions (the right of the carrier to perform and control its airport functions in support of its operations) and pro-competitive provisions on commercial opportunities, user charges, fair competition and inter-modal rights including non-discriminatory operation of and access to computer reservations systems (Source: US Department of Transport: “Towards Open Skies” – a Policy Paper, 1992; Forsyth 2007; Holloway 2003;) .

The Aviation Branch of the Department of Infrastructure, Transport, Regional Development and Local Government Department was of the view that more open and liberal bilateral Air Service Agreements (ASA) would be a step in the right direction and are an integral part of progression toward bilateral - and even plurilateral - "open skies" arrangements DITRDLG (2008). This was seen as a faster and perhaps more efficient way of achieving objectives than multilateral or other pluralistic approaches - for the immediate future, at least. Departmental thinking was that specific ASAs could be targeted in line with the strategic aims of removing market access impediments and/or developing major markets. For example, if Australia achieved the most liberal and beneficial bilateral arrangements possible with EU members, Australia might then be in a good position to negotiate other "bloc" (or plurilateral) agreements in the medium term.

The first issue is that the majority of Australians travelling to Europe are destined for the United Kingdom although increasingly other European destinations feature in the Australian Bureau of Statistics Origin and Destination data sets. Historically, carriers such as Qantas and British Airways dominated in this market; however, there has been an evolutionary change in the past decade with Asian and Gulf State airlines increasing their share of this market. Chapter 1 highlighted that no less than twelve different airlines operating into Australia competed in the Australia-EU market and that several other European based airlines such as Lufthansa, Scandinavian, Finnair, Swiss and Air France that

operated as far south as south Asia also competed in the market through alliance partners and code-share arrangements.

On the supply side, it is noteworthy that capacity remains ahead of demand. The research shows that two forces are at work. First, Australia's international aviation policy is to grant capacity increases ahead of demand and on this issue it has been shown that Asian and especially Gulf State airlines have added capacity into Australia. Secondly, the acquisition of the Airbus A380 super jumbo by Qantas, Singapore Airlines and Emirates Air used on selective routes from Sydney and Melbourne has increased capacity by around 12 per cent. Whilst Asian carriers have some obligation to promote their home destination, the marketing strategies deployed such as advertising, pricing, packaging and service are aimed at longhaul travel from Australia to Europe.

A new entrant such as Jetstar operating services into southern Europe (Athens and Rome or Milan) is likely to be twice weekly therefore creating around 1,200 one-way seats from Australia. This represents only a small fractional increase to capacity of the estimated 80,000 seats per week operated by airlines departing Australia to Asia and beyond. As such, the introduction of a longhaul, low cost airline into the market can best be viewed as a niche specialist. More significantly, expansion into Europe by Jetstar is a competitive response by Qantas to the increasing competition that surrounds the airline.

Conclusions relating to Question 1

1. The Australia-EU open skies agreement whilst technically creating a strategic window opportunity has some limitations. First, the agreement only applies to Australian or European carriers with their principal place of business domiciled in Australia or the EU. Qantas could possibly open a new (second) gateway into the UK but is poised to relaunch services to southern Europe through its low cost subsidiary that would signal a competitive response to existing, full service airlines and would appeal to the Australian Greek and Italian ethnic markets. Second, decisions to avail the open skies agreement which technically excludes Asian and Gulf State airlines would need careful consideration of these 5th freedom carriers who

are able to exercise their rights by carrying end-to-end traffic via their hub point. A difficulty for Qantas is their cap on the number of slots attained at London Heathrow (28 per week) which may mean Qantas needs to seek an alternative airport if it was to increase its capacity.

2. The strategic window theory stresses that an open window remains open only for a certain time. While it is expected that it would be an Australian airline taking advantage of the open skies strategic window, there are existing challenges and competitors on the horizon from Asian-based airlines. For example, the case study on Air Asia reveals that its longhaul subsidiary, Air Asia X is already in the low cost, longhaul Australia-EU market via Kuala Lumpur; however, the findings from this research reveal it is not a seamless service and comes with financial risks for passengers reliant upon same night connections that the airline is not responsible for. The announcement by Singapore Airlines of its intention to start a medium to longhaul low cost subsidiary from Singapore to Europe and some Asian destinations using Singapore Airlines feeder services from Australia to Singapore (Creedy, *The Australian*, 29 May 2011) is a further development in the market. Singapore Airlines is noted for its achievements and capabilities to implement strategic plans and its response to mainly Air Asia X and Jetstar is likely to create some lively marketing.

Conclusions 2 Relating to Question 2: Given the introduction of Jetstar services on routes between Australia and Asia, does this mean Qantas will adopt a similar strategy with its CWC strategy and extend the model to longhaul operations to Europe?

Contrary to some earlier studies that doubted the carrier-within-a-carrier strategy could work (Franke 2004; Lindstadt and Fauser 2004), recent trends by some of the world's major airlines (Air Canada, Cathay Pacific, Lufthansa, Singapore Airlines and Qantas) has shown the success of such a strategy being applied in different airline markets. The main objectives of CWC is to both defend market share from the attack by LCCs, enter new routes with single aisle regional jets and create new, point-to-point traffic on routes less suited for the parent airline

particularly where a two-class service is unjustified and the operation is high cost. The extension of the CWC strategy into longhaul markets is testing new ground.

Chapter 4 has highlighted the Qantas Group and its success with Jetstar tracing its beginning as a domestic airline operating mainly leisure routes with 15 aircraft to now one of an international airline operating over 40 aircraft and growing every year since the airline's inception. Jetstar has defied those critics who considered low cost airlines were best suited to domestic and regional short haul, high density routes by creating a reworked model suited to the medium haul Australia-Asia market.

Chapter 4 found that a number of factors contribute to the success of Jetstar. In the first instance, the Jetstar product was allocated routes by its parent airline owner as a substitute for higher cost Qantas services. Qantas determined that where the majority of traffic was leisure orientated – meaning tourists and visit friends and relatives, it was better suited to the Jetstar product and resultant lower costs and more competitive fares. The same strategy has been adopted on international routes to Asian ports as well as to Hawai'i.

A key benefit for Jetstar is the strengths Qantas can bring to the carrier. This includes planning, strategy, financial resources, its network operations such as engineering and technical including information technology systems and not least airline experience. On the one hand, Jetstar has the backing of a solid parent owner, but on the other hand, it can and does act independently. For example, Jetstar can tender its ground handling services or its ramp services and Qantas may be only one of several bidders. The strength of the CWC strategy is demonstrated when it comes to purchasing new aircraft. Qantas has an experienced team of engineers and pilots which can evaluate new models and the combination of a joint purchase order such as the new Boeing 787 allows both Qantas and Jetstar to negotiate the most favourable terms.

The creation of Jetstar enabled Qantas to introduce new award conditions into enterprise agreements negotiated with unions and employees and break down long held legacy industrial relations work conditions. This enables Jetstar to not only

obtain lower base rates of pay but expand the job functions leading to increased productivity and achieving low unit costs compared to Qantas mainline employees.

Another benefit of a common board is that top-down board level decisions by Qantas consider the Group as a whole meaning that strategic window opportunities can be matched according to whether it best suits the Jetstar operation or the Qantas operation. As Hmielseki and Ensley (2007) identified, the critical point is the ability to execute strategy. These researchers examined new venture performance and found that entrepreneur leadership behaviour, top management team heterogeneity and environmental dynamism were critical factors.

Jetstar has been able to successfully transition into a medium haul carrier and there is little reason to doubt it cannot do likewise to operate a limited number of longhaul services designed to complement the Qantas brand. Previous Qantas services into Greece and Italy was as a high cost legacy carrier and on flights making multiple en route stops between Australia and London. Under a new model with new generation, fuel efficient airliners and a model that emphasises cost containment and revenue maximisation, a strong ethnic market residing in Australia, increased tourism awareness of southern Europe as a destination, and not least the open skies Australia-EU agreement, the market becomes attractive for re-entry.

Conclusions 3 relating to Question 3: Can a longhaul low-cost airline entrant achieve a cost advantage compared to full service airlines?

The modeling conducted in chapter 5 has concluded that an airline adhering to the core principals of the low cost formula operating from Australia to Europe can achieve a cost advantage compared to a full service airline of at least 13 per cent compared to Emirates Air which industry recognizes as having the lowest costs of network airlines and around 17 per cent per seat kilometre savings compared to Qantas. This figure compares to a cost differential on Asian routes between Qantas and Jetstar of 20.4 per cent. The cost differential is not as great as the Boeing Airplane Company's modeling which calculated a 25 per cent differential

although Boeing did not select a particular route or consider the lowest cost full service airline. Clearly establishing and obtaining agreement on a definitive figure is clouded by a number of variables that impact on longhaul airline operations compared to short haul operations. For instance, a senior manager in Virgin Australia qualified the cost difference stating that characteristics such as weather patterns and especially winds, fuel burn and cruise speed all impacted on flight management and therefore the cost of operating each longhaul service. The findings were supported by the Centre for Asia Pacific Aviation Studies which has in general terms discussed cost differentials of between 15 to 20 per cent between a longhaul low cost airline and a full service airline. Data obtained to show cost differences according to sector length reveal that the curve in the cost model in transitioning from short haul to medium and longhaul is most pronounced for sector lengths at 2,000 kilometres although there is only a minimal cost differential between 2,000 and 8,000 kilometres. The research has specifically determined a cost differential between a longhaul low cost airline model and a full service airline and has therefore added to the literature that has been debating low cost longhaul but only in general terms.

Conclusions 4 Relating to Question 4: What elements of the short haul model can be transferred to longhaul airline operations and to identify what differences apply.

Chapter 5 considered some nineteen different operational and marketing characteristics based on models used by short haul airlines. Key elements of the short haul model were defined and then compared against longhaul operations. It was found that not all characteristics that define short haul can be transferred to longhaul. For example fast turnarounds, the use of secondary airports and high aircraft utilisation operating sectors of between one to two hours is not attainable. Key areas for longhaul low cost lie in controlling labour costs for both flight deck and cabin crew and regulated minimum rest periods away from base. A key to cost containment by LCCs has been their ability to negotiate different terms of employment, conditions and wages compared to legacy industrial relations agreements with established airlines thereby achieving greater flexibility, increasing productivity and at a lower unit cost. For instance some low cost

airlines engage cabin crew on a casual basis and only pay them for flying hours. Lower unit costs are also achieved through outsourcing that includes functions such as engineering and maintenance to IT and accounting functions to marketing and selling expenses. For example, low-cost carriers place a greater dependence on Internet bookings that reduces commissions to travel agents, they do not operate downtown ticket offices in high expensive rental areas and have no frequent flyer rewards program which is expensive to administer.

Longhaul low cost airlines need to use major airports rather than secondary airports. First, there is the operational consideration with larger and heavier aircraft requiring bigger runways and landing areas and refuelling capabilities. Second, major airports become more necessary as they act as hub points and a catchment area for joining traffic which is more critical than short haul, point-to-point traffic most of which is generated locally. The notion that airport charges forces low-cost airlines away from major airports may only be true to some extent. LCCs are attracted to secondary airports because they are not congested or subject to delays and LCCs do not need “gold plated facilities.” Jetstar confirmed that airport charges make up less than 5 per cent of its direct operating cost.

There was some discussion on the choice of aircraft and although not a research objective, the decision on choice of aircraft has an impact on cost, revenue, yield and performance. Flight management is a critical area for longhaul flights in terms of planning flight paths to gain favourable winds, fuel consumption and fuel burn, and the weight of the aircraft which are all significant factors in terms of aircraft performance and thus operating cost. Fuel cost is an airline’s largest cost and it was observed that airlines spend considerable effort into improving and reducing fuel consumption through a range of different strategies and operating characteristics.

It was briefly commented on the effect of cargo has on weight and aircraft performance. Most LCCs do not carry air cargo but most full service longhaul airlines rely on cargo to complement fare paying passengers. An advantage for a CWC carrier such as Jetstar which is strictly “airport to airport” is that they are

able to carry Qantas cargo and earn incremental revenue bearing little, if any of the handling and other associated costs – other than the extra fuel. This a key advantage compared to independent longhaul low cost carriers who have to forego cargo revenue as they do not have the resources, network and scale of operation compared to a full service airline.

Conclusions 5 Relating to Question 5: Build an understanding of the reasons for failure experienced by past low-cost longhaul failures to avoid repetition in the future.

This research has analysed many of the reasons for the failure of previous attempts to establish a low cost longhaul airline and to sustain operations. This area has been covered in Chapters 1, 2, the two case studies dating back to the early longhaul low cost pioneers Laker Airways and People Express to the more contemporary failed airlines such as Oasis Hong Kong and Zoom (Canada). Several authors have posited the need for a new business model that can be applied to a low-cost, longhaul airline (Francis *et al.* 2007; Hansson *et al.* 2003; Mason and Morrison 2008; Morell 2008; Wensveen and Leick 2009). Dobruszkes (2006) and Francis *et al.* (2006) have observed that the success of LCCs is their adherence to a different business model to “legacy airlines” – so named because most existed prior to deregulation and liberalisation. The problem is developing an appropriate business model and to avoid the Oasis Airlines mistake of “wrong aircraft, wrong model, wrong management” (Ballantyne 2008). The one characteristic all the past failures have is that they have been independent airlines.

At the time of submitting this thesis, Air Australia, an independent airline that had transformed itself from a fly-in/fly-out charter specialist serving the mining industry as Strategic Airlines, was suddenly and dramatically placed into receivership after less than six months of operating a low cost, “no frills” service between Brisbane and Bali and Brisbane and Honolulu. The airline had accrued debts to an aircraft lease company and owed money to airport companies and had run out of money. This collapse further highlights the point that it is difficult for independent start-ups to survive in the market.

The literature discusses a common, core set of operating principles and characteristics driving low-cost airlines but they are by no means homogenous. The differences between low cost airlines may vary according to a range of circumstances such as origin country, markets, the extent of regulation, socio-demographics, the extent of competition, ownership rules, labour markets, and marketing and operational strategies implemented.

Adopting a core set of principles for longhaul, low cost therefore seemed the most appropriate approach in determining a model. Given its past history of failures, an underlying principle for any low cost longhaul airline is a sound financial base with access to capital and working funds. Whilst a coherent marketing strategy and operational expertise are essential, the problems with past longhaul start-ups has mainly been financial weaknesses. It is a case of how to avoid the Oasis Airlines syndrome – “wrong aircraft, wrong model, and wrong management” (Ballantyne 2008). Given airline consolidation such as mergers and takeovers and strategic alliances there would appear to be little future for an independent airline although as shown in chapter 4, Air Asia is a standout example of how low cost longhaul can and should work.

From this research there is strong argument in support of the CWC strategy as the model to establish longhaul, low-cost given the strengths such a strategy offers – see Conclusion Number 5. Whilst CWC strategy was implemented as a strategy to combat low cost airline competition (Franke 2004; Graham and Vowles 2006) it is now poised on the threshold of complementing parent owner services offering new services and catering to a different market.

The case study research conducted has identified areas where past attempts to establish low cost longhaul went wrong and the lessons learned. Following Kjelgaard's (2007) “second time around” theme which like the early 1970s ended in failure for carriers such as Zoom and Oasis Airlines the history of failure of independent, longhaul, low cost airlines may raise some concern that it can re-emerge “a third time around”. A common theme amongst the past failures is the entrepreneurial spirit in which they were run. The literature highlights, entrepreneurs have a dislike for a structured, disciplined approach and prefer to be

“free spirits” working outside the normal business parameters, are ambitious, driven and prepared to take risks (Lumpkin and Dess 1996; Shane 2003; Stevenson and Jarillo 1990). An analysis of the past low cost longhaul airline highlights weaknesses such as under capitalisation, over expansion, and no alliance partners. Entrepreneurial spirit is not enough to survive in a brutally competitive industry like the airline industry.

McKiernan (2006) cites Quinn (1978) and observed that the most effective strategies of major enterprises tend to emerge step by step from an iterative process in which the organization probes the future, experiments, and learns from a series of partial (incremental) commitments rather than through global formulations of total strategies. This process is both logical and incremental. He recommends that incremental processes should be consciously used to integrate the psychological, political, and informational needs of organizations in setting strategy. According to McKiernan (2006), the total strategy is largely defined by the development and interaction of certain major subsystem strategies. Each of these subsystems to a large extent has its own peculiar timing, sequencing, informational, and power necessities. Different subsets of people are involved in each subsystem strategy. Moreover, each subsystem's strategy is best formulated by following a logic dictated by its own unique. Whilst Quinn (1978) is referring here to major enterprises, the processes that he describes could be applied to new airline start-ups whether they are independent carriers or a subsidiary of a major parent airline. Alvarez and Barney (2007) ask whether entrepreneurial opportunities exist, independent of the perceptions of entrepreneurs, are just waiting to be discovered or are opportunities created by the actions of entrepreneurs. In the airline sector, the answer would seem to lie in both. Opportunities are waiting to be discovered, for example lie-flat beds, airport lounges and ground transfers for first and business class passengers to “cuddle seats” in economy class introduced by Air New Zealand on longhaul flights to giving customers choices in whether they purchase ancillary services.

6.4 Discussion

The importance of the strategic window concept in an airline setting has been demonstrated in this thesis. Strategic window opportunities in the airline industry are related to strategic issues which by its nature are longer term views than short term. Strategic windows can arise from a range of factors – liberalisation, government policies, emerging new markets such as trade, commerce and tourism, technology, socio-demographic change such as immigration and population shifts, or long range aircraft capable of flying longer distances. Strategic windows can also open opportunities as well as close opportunities. For instance Singapore Airlines proposed entry into longhaul low cost is potentially closing opportunities to Air Asia. Singapore Airlines is a well established airline, financially sound and profitable and through its home hub point Singapore, attracts a far greater share of airline traffic than Kuala Lumpur. Singapore Airlines has an extensive network feeding into Singapore (95 flights a week from Australia) and it would seem passengers will be able to choose a Singapore airlines service (full service) or its subsidiary, ‘Scoot’ on certain longhaul sectors once this airline’s network is established.

The Strategic window concept is embodied in the strategic management literature, for example McKiernan (2006) has posited that there are four well-established frameworks to strategic management:

- The planned approach
- Logical incrementalism
- Outside-in analysis
- Inside-out analysis

The 'planned approach' places emphasis on a long term, highly systematic and deterministic process of strategic planning and aims at achieving the best "fit" between the organization and its environment. However, business environments may change chaotically, and such an overly prescriptive approach based on incomplete information may result in flawed decision making. The creation of Jetstar exemplifies both the ‘planned approach’ and ‘logical incrementalism’ frameworks from its early beginnings a domestic airline complementing Qantas

services to now an international carrier and duplicating some domestic routes with Qantas. Mintzberg (1994) argues that strategy emerges over time as intentions collide with and accommodate a changing reality. Thus, one might start with a perspective and conclude that it calls for a certain position, which is to be achieved by way of a carefully crafted plan, with the eventual outcome and strategy reflected in a pattern evident in decisions and actions over time. This pattern in decisions and actions defines what Mintzberg (1994) called "realized" or emergent strategy. It recognises that the strategic window concept determines the emergent and realised strategy

In this thesis the strategic window opportunity is twofold. On the one hand, the strategic window is said to be open through liberalisation policies that have created an open skies Australia-EU agreement which is partly to encourage new entrants. On the other hand a low-cost entrant could seize on the strategic window opportunity by using its cost advantage to price services lower than full service airlines. The research conducted confirms that a 15-17 per cent cost advantage can be attained compared to full service airlines but a slightly lower margin when compared to Emirates Air. The findings from this research have also highlighted that aircraft performance and flight management are critical factors in controlling fuel burn and cost given that fuel is the largest component cost of an airline's direct costs.

The history of failure of longhaul, low cost may give some rise to concern that such a model is sustainable. The case study research conducted has identified areas where past attempts to establish low cost longhaul went wrong and the lessons learned. It is plausible to suggest that longhaul low cost will emerge as a CWC strategy by already strong airlines using a two brands strategy rather than independent start-ups that lack sufficient capital and resources. Nearly all respondents agreed with this statement citing the emergence of Jetstar from short haul to medium haul operations, its plans to launch services to southern Europe, its aircraft orders for the new Boeing 787, consolidating its Singapore hub point, new growth opportunities sought by the Qantas Group and Jetstar's increasingly important profit contribution. CWC strategy backed by a strong parent with the financial, planning, technical and marketing resources and airline management

experience that new independent airlines find difficult to match. The one exception is Air Asia/Air Asia X which was the subject of a case study used in this research which established low cost longhaul operations. However, it would seem that even Air Asia realizes that being independent may not be the right strategy to pursue in the long term given its share swap arrangement with the national carrier, Malaysian Airlines which is likely to lead to various forms of cooperation between the two airlines. The one airline/two brands strategy being successfully deployed by several major carriers demonstrates that such a strategy can be blended into an airline group to enhance market performance, revenue growth and group profitability.

6.4.1 Issues for Future Research

The ever changing nature of the airline industry presents many areas and topics to study its characteristics from the strategic management and marketing literature to transportation issues, human resources and labour, comparative performance, privatisation and government policies concerning national airlines to airline-airport relationships. Research undertaken in this thesis brings together several sub themes. Whilst the main theme is the application of strategic windows in an airline setting, the sub themes span the low cost airline industry, strategic management, entrepreneurship, airline management and marketing, and government aviation policy. Research has highlighted a number of issues that require further research.

Open Skies and Government Aviation Policies

In an address to an aviation forum in Tokyo, Japan on 23 February 2011 to the foreign correspondents club, the IATA Director-General restated his vision for the airline industry: a level playing field with no commercial distortions, access to markets, and access to global capital congratulating the United States, Korea, Singapore and Malaysia on its open skies agreements. The IATA Director-General added:

“This is a golden opportunity to further open markets. Increased competition will bring productivity gains and stimulate economic activity”.

Source: IATA <http://www.iata.org/pressroom/speeches/Pages/2011-02-23-01.aspx> Remarks of Giovanni Bisignani at the Foreign Correspondents Club of Japan, Tokyo

There has been surprisingly little research conducted into aviation open skies agreements and a review of the performance of where such agreements have been legislated in particular in the Asia-Pacific basin. There is scope to research and identify where barriers apply and a continuation of government protection policies. In the Australian context, more work needs to be conducted into Australian international aviation policy and in particular the role of the International Air Services Licensing Commission, its relationship with Departmental officers and policy-makers, the basis on which it allocates capacity and whether Australia is achieving the best outcomes from its policies.

CWC strategy

There is a void in the literature concerning how airlines that adopted a CWC strategy apply their “one airline/two brands strategy”. Comparative research could be undertaken to examine different airline groups in different markets and how such airline groups segment markets, routes and product differences and how they manage the cultural difference between the two different types of operations. For instance, full service airlines are expected to demonstrate a high level of customer service, whereas a “no frills” budget operation is a “process” rather than a customer service. There is scope to update the earlier studies by Franke (2004) and Lindstadt and Fauser (2004) who doubted the CWC strategy could work mainly because of the different business platforms and cultural differences between the two different types of airline. There is scope to examine strategic marketing issues such as branding and positioning, product differentiation, market extension, market segmentation, pricing strategy and whether CWC is more than a defence strategy against LCCs.

Low Cost Airlines and Entrepreneurship

A key characteristic amongst the leading LCCs is that they are lead by forceful, determined and dominant personalities. Few researchers have analysed this aspect although Francis *et al.* (2007) did observe that 'champions' have been at the helm in driving the leading LCCs but did not further develop this theme. For

instance Sir Richard Branson (Virgin), Herb Kelliher (Southwest), Michael O'Leary (Ryanair), Stelios Iannou (Easyjet), and Tony Fernandes (Air Asia) are all at the forefront of their organisations. Whilst they are all different personalities, they share common attributes such as a determination to succeed and often apply unorthodox management principles in the way they manage their airline. Whilst these airlines are the most noteworthy because of their success, the LCC sector has also experienced a number of short-lived failures. Thus there is a gap in the literature that examines the role of entrepreneurial management in LCC start-ups and what drives them in an industry notorious for its dismal financial performance.

Product acceptance by airline consumers

A limitation of this research was that it never set out to determine whether airline consumers would travel “lowcost/low fare, no frills”. It could be argued that there is a market given the success enjoyed by the early pioneers such as Laker Airways (“Skytrain”) which carried 6 million passengers across the Atlantic and People Express who had flights booked out for months ahead (Kochneff 2004). In the contemporary market, carriers such as Jetstar and Air Asia X give some weight to the argument that airline consumers are prepared to trade-off service and comfort for price. However, more work needs to be done in this area. There is a vast difference between sitting in a seat for 1-2 hours with an LCC compared to longhaul journeys between Australia and Europe. What level of comfort should be provided and service levels are important questions requiring further investigation. LCCs are noted for advertising low ‘headline’ fares but then adding a host of ancilliary charges from taxes to check-in charges and checked baggage to refreshments, food and entertainment purchased in-flight. Longhaul travellers used to flying with full service airlines may get a shock if travelling longhaul low cost and have certain minimum expectations regarding passenger comfort and service. An understanding of airline consumers towards low cost, budget airlines would fill an important gap in the literature.

To a question concerning strategic alliances and a convergence between LCCs and FSAs, the Centre for Asia Pacific Aviation Studies thought that for LCCs to grow their next phase would be closer relationships with other non-competitive

but complementary LCCs and subsidiary airlines of a parent owner becoming a strategic alliance partner.

6.5 Concluding Comments

Australia is highly dependent on commercial aviation because of its isolation and distance from its major tourism and trade partners. Australia's aviation policy is to create capacity increases ahead of demand and create opportunities for not only Australian based airlines, but foreign airlines where it serves Australia's interests. For instance, this research highlights the growth and presence of Gulf State airlines being granted access into Australia as well as Asian based airlines. The Australian government defends its policy citing that foreign airlines serve markets either not served or not served well by Qantas. The emergence of Virgin Australia should not be overlooked as this airline extends its wings, for example operations to Abu Dhabi and an alliance agreement with Etihad Airways. The airline industry is dynamic, fiercely competitive and forever changing. For instance, the Centre for Asia Pacific Aviation Studies has recently cited Chinese airlines as the new competitive threat in the Australia-EU market in reference to route and capacity expansion sought by China Southern and China Eastern.

The emergence of low cost carriers in almost all aviation markets has created a new field of research across a number of disciplines such as business modelling and marketing/competitive strategy, market entry by new entrants and the effect of liberalization and government policy on aviation markets, the interrelationship between low cost airlines and airport companies, and the re-emergence of CWC strategy.

In conclusion this thesis has made a significant contribution to the understanding of the strategic window concept applied to an airline setting. The research contributes to the body of literature on the low cost airline sector from an Asia-Pacific perspective and fills a void compared to the contributions from European authors. It has gone further than previous research and achieved two key determinants of low cost entry. One, by examining airline costs and determining a cost model for a longhaul, low-cost Australia-EU entrant compared to full service airlines that is 'cost competitive'. Second, it has analysed and confirmed

the transferable elements from the short haul airline cost model to those applicable to longhaul airline operations. As such a low cost, longhaul entrant could take advantage of the strategic window in the new environment with open skies. The strategic window concept and strategy formation is demonstrated by confirmation the Qantas Group plans to re-establish air services between Australia and Greece and Australia and Italy based on the carrier-within-a-carrier strategy by using its low cost subsidiary, Jetstar. This strategy needs to be deployed by Qantas to head off its competition coming from Gulf State and Asian airlines. The application of strategic windows in an airline setting has been exemplified in the case studies relating to Jetstar and Air Asia. In the space of less than a decade these two airlines have achieved much in route expansion, number of aircraft fleet, exponential growth in passenger numbers and revenues and quickly achieving profitability. Although very different, both airlines demonstrate the application of the strategic window concept capitalising on liberalisation, creating new routes and new markets, differentiating the product, lowering fares compared to full service airlines, and an adherence to the core principals of low cost as outlined in this research.

The research conducted into low-cost, longhaul has conclusively confirmed that this business model can attain a cost advantage compared to full service airlines but not as great as the short haul airline model. Longhaul operations have different operating characteristics hence the variation between the different types of operation discussed in Chapter 5.

Although longhaul, low-cost airlines have a history of failure, strategic window opportunities for low-cost airlines to enter longhaul routes will re-emerge due to a number of driving forces. This includes new generation, fuel efficient long range aircraft, airline management practice to further reduce costs, and fulfilment of young aspirational next generation travelers prepared to sacrifice some service and comfort features for a lower fare subject to the airline's safety. It would seem more probable that entry into the longhaul low cost market is more likely to come from the CWC strategy and airlines that are strong in resources – financial, technical, marketing and airline experience. Entry by independent start-ups are faced with a number of barriers, not least adequate capital funding but the lack of

“marketing muscle” such as a distribution network and an advertising/promotional budget to promote a new service. Given the history of failure by independent airlines, it is difficult to fathom why an entrepreneur or investor would want to sink money into the airline business.

Whilst low cost airlines have had a dramatic impact in short haul markets, the same impact is less likely in longhaul markets. In the short term – next five years, most longhaul LCCs could hope for is to be a niche operator. Product change is more likely to be driven by innovative full service airlines that are already occurring with service enhancements such as premium economy class on longhaul sectors and Air New Zealand’s economy class “lie flat” on longhaul sectors between New Zealand and the US West Coast. Further consolidation of the industry will make existing airlines stronger in a market where “co-operation” rather than “competition” prevails. Second, longhaul routes are less under attack from LCCs partly because airline bilateral agreements give existing airlines a certain protection, and partly out of the different characteristics of longhaul operations which act as a potential barrier to entry.

Finally, although low-cost longhaul has attracted only scant attention by academic researchers its re-emergence is beginning to be shaped by forces such as liberalisation and open skies, new business models, carrier-within-a-carrier strategy, airline management strategy which is forever seeking ways to lower the cost of the product, new market segments, and new generation aircraft. As observed by one respondent, the airline industry is never static and often brings up surprises and often unexpectedly. It could be said that airlines are always scouting for strategic window opportunities for competitive advantage. Perhaps in a decade or so we will be discussing and writing about the phenomena of longhaul, low cost, low fare airlines using synthetic fuels operating sector lengths of over 15 hours flying time across trans-continental markets.

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APPENDICES

Appendix 1

RESEARCH QUESTIONNAIRE

Thank you for agreeing to partake as a respondent for my research doctorate. I am studying the strategic windows concept as applied in the airline industry and in particular whether a low cost longhaul airline can enter the Australia-Europe market and attain a cost advantage compared to full service airlines to capitalize on the strategic window opening created by the Australia-EU open skies agreement. The research to date suggests that only some of the strategies used by short haul low cost airlines may be transferable to longhaul, airline operations given the different operating characteristics between short haul operations and longhaul. I am primarily interested in your views and insights about low cost longhaul and Australia's international aviation policy, in particular the traffic rights granted to Gulf State airlines which accumulatively account for over 90 flights a week from four Australian gateways.

1. Many low-cost airlines have been successful in short-haul markets and both Jetstar and Air Asia have transitioned from short haul to medium/longhaul flights. (a) What do you attribute to these airlines success? (b) What differences need to be applied from short haul in how LCCs adapt to a different type of airline operation?
2. In thinking about longhaul, low-cost, it has a history of failure – Laker Airways, People Express and the more contemporary failures such as Oasis Airlines (Hong Kong) and Zoom (Canada). What do you attribute as the main reasons why these carriers failed and what lessons could be learned?
3. Full service, network airlines have consolidated into major airline alliances with code-share agreements and the pooling of resources. British Airways has gone further in forming the “Inter Group”; however in contrast LCCs remain steadfastly independent. How do you think LCCs will shape their future strategy and especially if they enter longhaul markets?

4. The system of airline bilateral agreements governs most international aviation. How much is this an impediment to denying access to routes/markets by low cost longhaul airlines or are there other reasons?
5.
 - (a) In thinking about the Australia-EU open skies agreement, what advantages and disadvantages do you see the agreement bringing Australia and the EU?
 - (b) Over the past decade there has been an exodus of European airlines from Australia. Do you think the open skies agreement will see a return of any European-based airlines given a different set of liberalized conditions – please give reasons.
 - (c) Could you please comment on Australia’s international aviation policy and whether you think it is working in Australia’s best interests?
 - (d) Would you comment on Australia’s granting of traffic rights to Gulf State airlines such as Emirates Air, Etihad, Qatar Airways and Gulf Air especially when no Australian airline operates to this part of the world? What impact are these carriers having on the outbound Australian market? Why do you think the Australian government opened up the market to these airlines?
6. The carrier-within-a-carrier strategy has proven to be a successful formula for some major airlines especially in Asia-Pacific despite failures in other markets. Is this merely a passing phase or will we see a continuation and even an enlargement of this strategy given that IATA has stated there are too many airlines? What future direction do you see CWC strategy taking?
7. I am going to list a number of key elements associated with the low-cost airline model that drive their cost base which enables them to compete against FSAs. I would like you to think about whether these elements can be applied to longhaul airline operations and issues surrounding them given that longhaul has different characteristics to short haul operations.
 - One aircraft type (regional jet), single aisle versus twin aisle, long range aircraft
 - Class of travel – short haul all one class versus one class or a limited number of business class style seats for longhaul.

- Seat pitch (short haul has a narrow seat pitch – 29-31 inches compared to FSAs)
- Check-in, seat allocation, boarding
- Airports used
- Turnarounds
- Crewing arrangements (number, ratio to number of passengers, crew rest periods, engagement of foreign crew, different conditions such as pay scales compared to FSAs)
- Marketing – especially Distribution
- Contracting out/outsourcing

Thank you for your time in participating in this research. Your comments, insights and discussion are much appreciated.

Definitions

The following section defines the various terms used in this thesis.

Aerodrome/Airport

A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft

Aircraft Utilization

Measure of aircraft productivity, calculated by dividing aircraft block hours by the number of aircraft days assigned to service on air carrier routes. Typically presented in block hours per day.

Airline Operator/Carrier

The operator of a Regular Public Transport air service

Available Seat Kilometres (or Miles (ASKs))

A common industry measurement of airline output that refers to one aircraft seat flown one kilometre (or mile), whether occupied or not. An aircraft with 100 passenger seats, flown a distance of 100 miles, generates 10,000 available seat miles.

Block Hour

Time from the moment the aircraft door closes at departure of a revenue flight until the moment the aircraft door opens at the arrival gate following its landing. Block hours are the industry standard measure of aircraft utilization (see above).

Cost per Available Seat Kilometre Mile (CASK)

Measure of unit cost in the airline industry. CASK is calculated by taking all of an airline's operating expenses and dividing it by the total number of available seat miles produced.

Number of seats x Flown distance (kms x Frequency = total available seat kms x Total cost/

divided by no. of seats = Cost per available seat kilometre

Unit Cost per Unit of Output

A measurement that gauges total operating costs in relation to output/results.

Dependability

This is the measure of an airline's on-time performance. It includes the following measures:

- D + five (D+5): departures that push back from the gate within five minutes of the scheduled time.
- D + zero (D+0): departures that push back from the gate on time.
- A + 15: arrivals within 15 minutes of the published arrival time.

Full Service Airline

An airline that operates a mixed class service (business or premium and economy class with separate check-in) including complimentary in-flight service such as meals and drinks. Most FSA's operate lounges at major airports for its club and frequent flyer members and a range of business services are available.

Handling Agent

An organization which provides an airline with services such as, but not necessarily confined to, engineering support, passenger handling, operational services and the supply of consumable items.

Hub point

a strategic geographic hub usually dominated by a single carrier where services are concentrated to/from secondary feeder (spoke) points. International carriers usually centre their operations on their natural 'home' port.

Low-cost airline

A "no frills", budget style airline that reduces or does away with added service extras and seeks ways of reducing all aspects of the airline's cost structure including overheads and operates a one-class, usually single aisle, one type aircraft, does not carry cargo and seeks fast turnarounds.

Load Factor

The number of Revenue Passenger Kilometres (RPKs) expressed as a percentage of ASKs, either on a particular flight or for the entire system. Load factor represents the proportion of airline output that is actually consumed. To calculate this figure, divide RPKs by ASKs. Load factor for a single flight can also be calculated by dividing the number of passengers by the number of seats.

Network carrier

Similar to a full service airline. An airline with an extensive national or intrastate route network that provides regular scheduled services hence the term "network costs". Such an airline may operate out of one or more key hub points.

Operating Revenue

Revenues received from total airline operations including scheduled and non-scheduled service. Sources of revenue include passenger, cargo, excess baggage and certain other transport related revenue.

Passenger Revenue

Revenue received by the airline from the carriage of passengers in scheduled operations.

Passenger Revenue per Available Seat Kilometre (PRASK)

Often referred to as a measure of passenger "unit revenue". It is calculated by dividing passenger revenue by available seat kilometres. Typically the measure is presented in terms of cents per kilometre. This measure is equivalent to the product of load factor and yield (see below).

Passenger Yield

Measure of average fare paid per kilometre (or mile), per passenger, calculated by dividing passenger revenue by revenue passenger kilometres. Typically the measure is presented in cents per kilometre and is useful measure in assessing changes in fares over time. Yield is not useful for comparisons across markets and/or airlines, as it varies dramatically by stage length and does not incorporate load factor (unlike PRASK).

Revenue per Available Seat Kilometre (RASK)

Also called "unit revenue," this figure is calculated by dividing the airline's total revenue by all the available seat miles.

Revenue Passenger Kilometres (RPKs)

This is the basic measure of airline passenger traffic. It reflects how many of an airline's available seats were actually sold. For example, if 200 passengers fly 800 kilometres on a flight, this generates 160,000 RPKs.

Revenue per Employee

One measure to determine an airline's labor productivity. It is calculated by dividing an airline's total revenue by the number of airline employee full-time equivalents.

Seat Density

Average seating configuration of an airline's operating fleet. The measure is derived by dividing total available seat kilometres flown by the number of aircraft kilometres flown. It is important to understand the average aircraft size as it is an important determinant of employees needed to service the operation of a particular airline.

Stage-Length

The average distance flown, measured in statute kilometres (or miles), per aircraft departure. The measure is calculated by dividing total aircraft kilometres flown by the number of total aircraft departures performed.

Stage Length Adjusted Total Revenue per Equivalent Seat Kilometre (SLA TRESK)

A common practice utilized to normalize comparisons of TRASK between carriers. Comparisons between carriers are significantly impacted by the distance flown and this analytical approach is designed to compare results as if all carriers fly the same missions.

Stage Length Adjusted Passenger Revenue per Equivalent Seat Kilometre (SLA PRESK)

A common practice utilized to normalize comparisons of PRASK between carriers. Comparisons between carriers are significantly impacted by the distance flown and this analytical approach is designed to compare results as if all carriers fly the same missions.

Stage Length Adjusted Passenger Yield (Passenger Revenue Per Revenue Passenger Kilometre)

A common practice utilized to normalize comparisons of Passenger Yield between carriers. Comparisons between carriers are significantly impacted by the distance flown and this analytical approach is designed to compare results as if all carriers fly the same missions.

Total Revenue per Available Seat Kilometre (TRASK)

Often referred to as a measure of unit revenue. It is calculated by dividing total operating revenue by available seat miles. Typically the measure is presented in terms of cents per mile.

Sources: Department of Infrastructure, Transport, Regional Development and Local Government (2008); Bureau of Infrastructure (2008), Transport and Regional Economics; Centre for Asia Pacific Aviation Studies (2006); Massachusetts Institute of Technology (2008).

Excerpts from the Australian Government White Paper on Aviation,**December 2009**

The worst of the world recession may be over, but the industry will remain subject to economic cycles and volatile oil prices. Terrorism remains an ever present threat and climate change is emerging as the big issue of the 21st century. Unless we take active measures now, skills shortages will re-emerge as a serious problem as the industry returns to growth. This White Paper charts the way forward as we tackle the many issues that will confront the aviation industry in coming years.

Maintaining and improving safety and security is the first priority for the Australian Government. Major safety or security incidents seriously undermine confidence in flying, and as we saw with September 11, 2001, the economic impact on the industry can be devastating. Regulatory agencies need to work effectively with industry to maintain Australia's excellent safety record and there needs to be investment in state-of-the-art air space management technology, including satellite technologies, to cope with ever growing air traffic. We also need to ensure that we have an aviation security regime in place that continues to protect us from the ongoing threat of terrorism.

At the same time, it is important that the cost of regulation does not place an unnecessary burden on the industry, and in particular on the regional and general aviation sectors. The Government is acting to keep regulatory charges at reasonable levels and is also taking steps to ensure that these sectors have continued access to airports. While parts of the regional and general aviation sectors have struggled to adapt to a deregulated environment, our major domestic and international airlines have prospered. Increased competition, more services and cheaper fares have had huge flow-on benefits for the broader economy, and in particular for Australia's tourism industry. The Government will build on the environment that has brought these benefits, acting to encourage improvements in some targeted areas where service levels have declined.

As airports expand to meet increasing demand and our major cities grow, the issue of planning is assuming increasing importance. It is vital for continued investment in our major airports and for the welfare of surrounding communities that airport development plans be properly integrated with land planning around airports. It is also essential that airport planning processes be more transparent and consultative. The White Paper details the changes the Government will establish to improve planning on and around our major airports.

The Government's aim is to give industry the certainty and incentive to plan and invest for the long term, to maintain and improve our excellent aviation safety record, and to give clear commitments to travellers and airport users, and the communities affected by aviation activity. This White Paper provides a comprehensive and balanced framework, bringing together all aspects of aviation policy into a single, coherent and forward looking statement — a flight path to the future to continue aviation's crucial role in connecting Australians to each other and to the rest of the world.

The Hon Anthony Albanese MP

Leader of the House

Minister for Infrastructure, Transport,

Regional Development and Local Government

December 2009

Introductory vision and objectives

Aviation is an industry of national strategic importance to Australia. Perhaps more than any other country, Australia depends on air transport to link our people with each other and the rest of the world. More than this, aviation is a critical enabling industry for the broader economy. A safe, secure and efficient aviation industry underpins a range of business, trade and tourism activities that contribute significantly to our economic prosperity. The Aviation White Paper sets out for the first time the Australian Government's long-term policy objectives for the aviation industry. Looking forward to 2030 and beyond, the Government's goal is a vibrant aviation industry that, through its major contribution to economic activity and our quality of life, builds a stronger, fairer Australia.

This White Paper details firstly, the important role aviation performs in supporting broader economic, trade and social outcomes; secondly, the regulatory framework the Australian Government maintains to keep the industry safe and secure; thirdly the importance of continued investment and protection of aviation infrastructure and reforms to planning arrangements at Australia's major airports; and finally, the importance of minimising aviation's negative impacts on the environment and communities. The presentation of these priorities reflects the Government's desire to present the industry's role in context, before describing the important initiatives the Australian Government has put in place to improve safety, regulatory and planning oversight for the industry.

The maintenance of a safe, secure industry remains the overriding priority of the Government for aviation in Australia. The industry must share this priority to underpin its future sustainable growth. In framing Australia's future aviation policy framework, the Government has identified a number of key goals for the industry over the coming years.

AUSTRALIA'S AVIATION GOALS

Safety and security underpin industry growth and remain the highest priorities for the Australian aviation industry and the Australian Government.

- Australians should have a well-founded confidence in the safety of aviation and a strong culture of safety needs to be maintained across government and industry supported by a sound safety governance framework.
- Enhanced aviation safety should be delivered by an effective, efficient and responsive air traffic management system.
- Modern air traffic management technologies and service provision should be used to assist in the reduction of greenhouse gas emissions from aviation operations.
- An effective, focussed and proportionate aviation security system should be in place to mitigate the risk to Australia's air travellers and the general public from terrorism and criminal interference.

Aviation is a key driver of broader economic prosperity

- Australia should have an open and competitive international aviation market that benefits tourism, trade and consumers, allows Australian and overseas

airlines to expand, and maintains a vibrant Australian-based aviation industry.

- Australia should maintain an open interstate domestic aviation market that maximizes benefits to the Australian economy within the general framework of national competition policy.
- Aviation businesses should be able to innovate and develop new and improved products and services for the market.
- Employment in the aviation industry should grow with more Australians training for and taking up jobs in the industry.

Overview

The release of the Aviation White Paper marks the first time an Australian Government has brought together all aspects of aviation policy into a single, forward-looking statement. The decision to develop the White Paper was taken soon after the election of the Rudd Government. It recognised the need to move away from an ad hoc approach to policy and planning for the aviation industry to a more coherent, strategic approach.

The first priority of the Australian Government for aviation is the safety and security of the travelling public. The Government has already enacted important reforms to the governance of Australia's aviation safety regulation and investigation agencies as it developed the Green Paper. The White Paper builds on these reforms and recognises that high levels of safety and security must continue to underpin the industry's future growth.

The Aviation White Paper is an important element of the Australian Government's broader strategic plan to build a stronger, fairer Australia and to prepare for the challenges of the future. The decision to develop the White Paper pre-dated the global financial crisis which engulfed the world during the latter half of 2008. It was taken at a time of strong industry growth where major challenges were appearing in the areas of infrastructure capacity, skills shortages and rising fuel prices. Few anticipated the extent or rapidity with which these concerns would be overtaken by those generated by the financial crisis. Or the extent to

which the crisis would spread beyond the financial sector to other industries, none more so than the aviation industry.

Crafting the Government's direction in such a rapidly changing financial environment has presented challenges, but it has also highlighted the importance of providing long-term planning, investment and regulatory certainty for the industry. The impact of recent economic turbulence on the aviation industry has been severe, but history shows the aviation industry will regroup and return to growth as the broader economy recovers. Not only will a rebound occur, but the industry will continue to innovate and expand.

The focus of the White Paper, as a long-term policy and planning document, is very much on the future and on the challenges facing both industry and governments in continuing to grow this vital sector. There will be pressures to maintain high safety and security standards as the industry continues to contain costs and there will be pressures on airports to invest to meet growing demand. At the same time there will be pressures to reduce the impact of aviation activity on communities and the environment.

The ability to sustain services to locations with declining populations in regional Australia will be testing for both industry and governments. Another challenge is recruiting and training enough pilots, engineers and air traffic controllers to meet future needs.

The Government's objectives remain:

- to give industry the certainty and incentive to plan and invest for the long term;
- to maintain and improve Australia's excellent safety record;
- to give proper consideration to the interests of travellers and users of airports; and
- to better manage the impact of aviation activity on communities and the environment.

This White Paper outlines the policy settings and the long-term approach the Government has taken to achieve these objectives.

International aviation

Over 23 million people travelled on air services to and from Australia in 2008–09, almost half of these tourists visiting from overseas. Continued growth of international air services is vital to support further growth in international business, trade and tourism. The Government will continue to take a liberal approach to the negotiation of international air services rights while protecting the national interest and promoting expanded commercial opportunities for Australia's international airlines.

Travellers and Australia's tourism and trade sectors will continue to benefit from the opening up of Australia's international markets to more competition. The services of Qantas, Jetstar, Pacific Blue Australia and, most recently, V Australia, provide Australia with a strong competitive presence in international aviation markets and the Government supports consolidation and expansion of this presence.

Traffic rights that other countries have to offer will remain an important consideration in Australia's air services negotiations, as will the objective of maintaining a strong and vibrant Australian based aviation industry. The Government is seeking to move to a new generation of liberalised air services agreements with like-minded partners. These include agreements that go further than the traditional exchange of traffic rights to include open capacity, beyond and intermediate rights, safety, security, environment, competition and investment provisions. Currently there are secondary foreign ownership limits that apply to Qantas, but not to other Australian international airlines. The Government will amend the *Qantas Sale Act 1992* to remove these limits so that the same investment regime will apply to all airlines. This will increase Qantas's ability to compete for capital and to have more flexible equity arrangements consistent with other Australian international airlines. However, the Government will ensure that Qantas continues to be majority-owned by Australians and that its major operational base remains in Australia.

The Government will also move to encourage international airlines to increase services to Australia's secondary international gateways. Australia's regions have further potential to grow their inbound tourism markets. By providing airlines who serve regional airports with greater access to the major gateway destinations of Sydney, Melbourne, Brisbane and Perth, the Government will provide further incentives to airlines to better service destinations such as Cairns, Darwin and Broome.

Summary of Government initiatives

International aviation

The Australian Government is committed to continuing the growth of Australia's international air services, providing additional opportunities for trade and tourism, while maintaining a strong Australian-based aviation sector. The Government will pursue an international air services policy which serves Australia's national interests by:

- continuing the growth of international aviation towards 'open skies' agreements, balancing the economic, trade and tourism benefits that flow from opening up international aviation markets and the need to maintain a strong Australian-based aviation sector;
- ensuring the capacity available to foreign and Australian airlines under our bilateral agreements remains ahead of demand so that growth is not constrained and airlines can plan for long-term expansion in the Australian market;
- provide opportunities for regional areas such as Cairns, Darwin and Broome to attract international services by:
 - offering foreign airlines unlimited access to secondary gateway markets (markets other than Brisbane, Sydney, Melbourne and Perth); and
 - increasing these opportunities by offering additional beyond rights and improved access to major gateway markets for international flights linked to secondary gateways;
- seeking fully open arrangements for dedicated cargo services to support Australia's vital air freight export industries;

- providing greater opportunities for cross border airline investments through the incorporation of principal place of business criteria in bilateral agreements; and
- retaining the basic restriction of 49 per cent on foreign investment in Australia's international airlines under the *Qantas Sale Act 1992* and *Air Navigation Act 1920* to ensure our airlines remain majority Australian owned and controlled, but
 - removing the additional restrictions on foreign ownership under the *Qantas Sale Act 1992* (i.e. 25 per cent for foreign individual shareholdings and 35 per cent for total foreign airlines shareholdings);
 - considering more flexible arrangements for ownership of Australian international airlines other than Qantas with governments with which Australia has negotiated Open Aviation Market agreements; and
 - pursuing in key international trade forums a multilateral approach to the liberalisation of international aviation.

POLICY GOAL

An open and competitive international aviation market that serves the national interest by benefiting tourism, trade and consumers, allows Australian and overseas airlines to expand, and maintains a vibrant Australian-based aviation industry.

BACKGROUND

As an island continent geographically isolated from major international markets, Australia is more reliant on international aviation than any other country. International air services provide vital connections to global markets for Australian businesses and the tourism industry, generating billions of dollars for the Australian economy.

The regulatory framework governing international aviation is complex, based on a system dating back to 1944. The framework consists of a series of interlinked government-to-government bilateral treaties, determining levels of market access for countries' respective airlines, outside of which access to aviation markets is closed.

Australia has been at the forefront of aviation liberalisation since the late 1980s when the then government embarked upon a series of reforms to open up access on international routes, involving moving away from a policy based almost exclusively on protecting the interests of national airlines to negotiations based on promoting broader trade, consumer and tourism benefits. Liberalisation of the aviation market has forced our airlines to become more efficient and flexible to meet market demands. It has also allowed new entrants into the market, increased options for consumers and reduced prices. However, the regulatory regime governing access to international air services remains complex and dependent on individual bilateral treaties between governments. The Australian Government will need to continue to work within this bilateral framework for the foreseeable future.

POLICY ISSUES

Liberalisation

As an island nation, Australia depends heavily on international air services for its links to the rest of the world. Over 99 per cent of international passengers to and from Australia are carried by air. High-value air freight relies on the speed and reliability of air services. International air services are critical to our domestic economy, to the tourism industry and to our business, social and cultural connections.

The regulatory framework governing international air services is complex. While most sectors of international trade operate on the presumption that the market is open unless governments restrict that market, international aviation is different as the market is closed until governments act to open the market. The underlying framework for the regulation of international aviation is contained in the 1944 Convention on International Civil Aviation, which is commonly referred to as the Chicago Convention. The *Air Navigation Act 1920* gives effect to the Chicago Convention in Australia.

International aviation is governed by a series of government to government bilateral treaties determining levels of market access for countries' respective airlines. Over 3,500 of these bilateral air services agreements are in place,

operating for the most part outside the World Trade Organisation (WTO) and international free trade agreements frameworks. While some tentative steps have been taken in multilateral forums, such as the WTO, the global application of free trade principles to international aviation remains a longer term goal. Liberalisation within the bilateral system is likely to remain the only way to open up aviation markets for the foreseeable future.

International aviation

Bilateral air services agreements set out the number of weekly flights that airlines of the two countries can operate, cities they can serve in the other country and rights to operate via or beyond to third countries. The agreements typically also include provisions related to such matters as airline ownership and control, competition law, safety and security. The outcomes of bilateral air services negotiations often represent a compromise outcome that balances the needs of both parties, with each side seeking to maximise the benefits for their respective countries. In such an environment it can often take several rounds of negotiations, over many years, to achieve the most favourable outcome.

A flexible policy framework is needed that can accommodate growth in international markets over the medium to long-term, with a focus on key markets, while maintaining a strong Australian based industry. In framing its international policy settings, the Government aims to:

- improve opportunities for Australian carriers to access international markets;
- increase competition and choice for Australian and foreign travellers on international routes to and from Australia; and
- improve trade and tourism opportunities for Australian industry.

There was broad support in responses to the Green Paper for the view that Australia's international aviation policy settings needed to provide a platform for enhanced trade and tourism flows and deliver benefits for the broader Australian economy. Stakeholder comment varied, however, on the pace of liberalisation. Australia's international airlines were broadly supportive of the current policy where changes to individual bilateral agreements seek to balance the need to

obtain commercially useable rights for Australian carriers with the benefits which flow from increased foreign airline access. Other stakeholders argued Australia would be better served through allowing greater access for foreign airlines.

The Government will continue to pursue liberalisation of the international aviation market, including 'open skies' style agreements, where these are assessed to be in the national interest. In all cases the Australian Government will seek to ensure capacity available under our bilateral agreements remains ahead of demand so that airlines are free to make commercial decisions about the frequency and types of services they operate. Such an approach provides airlines with the regulatory certainty to enable them to commit to long-term growth plans in the Australian market.

As a long-haul, end-point destination Australia has few valuable traffic rights to trade in exchange for access to overseas markets and we need to maximise what negotiating leverage we do have. Access to the trans-Pacific route between Australia and the United States remains one of the few valuable rights we have available to trade. The establishment of an open skies agreement with the United States has allowed greater competition on the route. V Australia and Delta have joined established airlines Qantas and United Airlines on the route, offering a greater range of services and lower fares.

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