The struggle for competitive advantage in the airline industry

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THE STRUGGLE FOR COMPETITIVE ADVANTAGE
IN THE AIRLINE INDUSTRY

By

Gianfranco Cuccaro

A Doctoral Thesis
Submitted in partial fulfilment of the
requirements for the award of

The Degree of Doctor of Philosophy of
Loughborough University
April 2002

Gianfranco Cuccaro, 2002
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May I take this opportunity to thank first and foremost Professor Peter Lawrence for his help, guidance, supervision, belief in my capability and friendship during the course of this research.

I would also like to thank Professor John Wilson, for his counsel given and availability to help me in finding funding available in order to undertake my fieldwork in Europe.

Loughborough University Business School, also deserve my sincere thanks for their financial support of this research.

My many thanks also go to all those who agreed to participate in the investigation and particularly to some of the high profile senior managers of airlines interviewed. A very special thanks to three of the vice presidents interviewed for their amazing frankness and cooperation in responding to my queries. Also I would like to thank the manager directors of two airports one of them the most important in Europe.

A final big thank you goes to my parents and brother Giovanni Cuccaro, Carmela Cuccaro and Lorenzo Cuccaro for their patience, moral support and financial support. I would like to thank also all my friends, but particularly Charlie Bryson for his support and Maiko Komori for being around and supportive and Dr Janet Bunker for her advice and support. Finally, a special thank to Jeff Charnock Front of House Manager at the Corn Exchange for his understanding, great support and flexibility he has given me to help me concentrate and succeed in my research.
ABSTRACT

The aim of this thesis is to examine the way in which civil airlines exploit their resources in order to gain and sustain competitive advantage. This is done within the framework of the resource-based view, rather than using the market based view, thought without of cause presuming to test that paradigm.

The first chapter offers a fairly detailed account of the airline industry. This is felt to be necessary to render the thesis accessible to readers who may not be industry experts. The second chapter examines the literature on and overall merits of the resource based and market based view, reformulates the research objectives and outlines the methodology, primarily the use of data published in specialist sources, supported by personal industry knowledge.

The subsequent chapters develop the thesis with regard to cross airlines ownership stakes and occasional merger and acquisition, the leverage exercised by bigger airlines at airports, and the issue of strategic alliances.

The findings that emerge from this exercise are that in a sense checked via a series of interviews with key informants, and some qualifications to the resource based view are offered before proceeding to a summary statement of the conclusion.
DISCLAIMER

A note on the laps of time.

While this thesis was submitted in spring of 2002, my PhD studies actually began in summer of 1999, and I first started writing part of the thesis in the autumn 1999, and many parts of it were completed sometime before final submission.

But this is a volatile industry and much has changed while I have been writing my thesis, including changes in ownership and ownership stakes, alliances membership, bankruptcy, the world economic slowdown beginning in 2001 and impacting on the airlines, and of course the terrorist attacks in New York and Washington on the 11 September 2001.

I have tried to take count of the some of these changes, by correcting facts, changing verb tenses, and rewriting portions of the thesis. On the advice of my supervisor, however, I have not done this comprehensively preferring to show the facts, which shaped events and the motivation of initiators at the time they happened. My thesis is not meant to be an up-to-date snapshot of the industry on the day the thesis was submitted, but an examination of the competitive processes at work in the industry based for the most part on the analysis of the recent past.
CONTENTS

ACKNOWLEDGMENTS..............................................................................II

ABSTRACT .............................................................................................. III

DISCLAIMER .......................................................................................... IV

CONTENTS ................................................................................................ V

GLOSSARY OF TERMS AND DEFINITIONS ................................... IX

AIR FREEDOM RIGHTS..................................................................... XIV

LIST OF FIGURES ................................................................................. XV

LIST OF TABLES ................................................................................... XV

CHAPTER I ............................................................................................... 1

1.0 BACKGROUND OF THE AIRLINE INDUSTRY ....................... 1

1.1 CHARACTERISTICS OF THE AIRLINE INDUSTRY ................ 7

1.1.1 LABOR INTENSIVE NATURE ................................................. 9

1.1.2 PRICING POLICY AND PASSENGER DEMAND ................. 10

1.1.3 HORIZONTAL AND VERTICAL INTEGRATION ................... 13

1.2 AIRLINE GROWTH ....................................................................... 15

1.3 WORLD AIRLINES AND EUROPEAN AIRLINES ............... 23

1.4 EUROPEAN AIRLINE INDUSTRY MARKET ....................... 30

1.4.1 STRUCTURE OF THE EUROPEAN AIRLINE INDUSTRY MARKET ...................................................................................................................... 31

1.5 AIRLINE DEREGULATION AND OPEN SKIES .................... 36

1.5.1 OBJECTIVES BEHIND EUROPEAN AIR TRANSPORT LIBERALISATION ..................................................................................................................... 39
1.6 CONGESTION AND OVER CAPACITY ........................................... 43
1.7 AIRLINE OPERATING COSTS ..................................................... 45
1.7.1 BREAK DOWN OF AIRLINE COST ........................................... 48
1.8 DEVELOPMENT OF THE WORLD AIRLINE INDUSTRY...... 53
1.8.1 ALLIANCES, CODE SHARING, MERGERS ......................... 54
1.8.2 ALLIANCES ............................................................................. 55
1.8.3 CODE SHARING ........................................................................ 58
1.8.4 MERGERS .................................................................................. 58
1.8.5 AIRLINE ALLIANCE SHAPE ..................................................... 59

CHAPTER II ............................................................................................. 65
2.0 RESOURCE BASED-VIEW AND COMPETITIVE ADVANTAGE ........................................................................ 65
2.1 OVERVIEW ...................................................................................... 65
2.2 SUSTAINING COMPETITIVE ADVANTAGE AND CORE COMPETENCE ......................................................... 70
2.3 OVERVIEW OF THE MARKET-BASED VIEW AND RESOURCE-BASED VIEW CONCEPT .......................................... 76
2.3.1 INDUSTRIAL ORGANISATION (MARKET BASED-VIEW) .76
2.3.2 RESOURCE BASED-VIEW ............................................................ 80
2.3.4 COMPETITIVE MATRIX ............................................................. 93
2.3.5 INTENTION AND METHODS .................................................... 101
GLOSSARY OF TERMS AND DEFINITIONS

AEA  Association of European Airlines

AA  American Airlines

AF  Air France

Alliance  An agreement between airlines to cooperate in the provision or operation of some of their services on a route, or on a regional or global basis

ATA  Air Transport Association (North American Airlines)

ATC  Air Traffic Control

AZ  Alitalia

BA  British Airways PLC

Cabotage  To carry passengers within a country by an airline of another country on a route with origin/destination in its home country

Code-sharing  The assignment of one airline’s designator code e.g. BA for British Airways) to a flight operated by another airline

CRS  Computer Reservation Systems
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>DBA</td>
<td>Deutsche BA</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>ERA</td>
<td>European Regional Airline association</td>
</tr>
<tr>
<td>Eurocontrol</td>
<td>European Organisation for the safety of Air Navigation.</td>
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<tr>
<td>Flag carrier</td>
<td>A country’s national airline. Countries with only a government-owned airline often identify the airline as the national or flag carrier.</td>
</tr>
<tr>
<td>Grandfather rights</td>
<td>The allocation of airport landing and take-off slots based on the past and or current allocation</td>
</tr>
<tr>
<td>Hub and spoke network</td>
<td>A network of routes operating through a central hub point. Airlines may channel and increase traffic through hub points, thereby creating economics of traffic density</td>
</tr>
<tr>
<td>IB</td>
<td>Iberia, Spanish national airline</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
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<tr>
<td>ICAO</td>
<td>International Civil Association Organisation.</td>
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<td>KLM</td>
<td>Dutch Royal Airline</td>
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<tr>
<td>LH</td>
<td>Lufthansa</td>
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<tr>
<td>Term</td>
<td>Description</td>
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<tr>
<td>Landing and take-off slots</td>
<td>Landing and take-off time at airport</td>
</tr>
<tr>
<td>NW</td>
<td>Northwest Airlines</td>
</tr>
<tr>
<td>North Atlantic routes</td>
<td>Scheduled services between Europe and Canada/USA</td>
</tr>
<tr>
<td>Open skies agreement</td>
<td>Agreement to remove restriction on the ability of airlines to operate services between two countries</td>
</tr>
<tr>
<td>Overall Load factor</td>
<td>The percentage of total capacity available for passengers, freight and mail which is actually sold and utilised. Computed by dividing total revenue tonne-kilometres actually flown by total available tonne-kilometres.</td>
</tr>
<tr>
<td>Passenger Yield</td>
<td>Passenger revenue per RPK</td>
</tr>
<tr>
<td>Passenger load factor</td>
<td>The percentage of seating capacity which is actually sold and utilised.</td>
</tr>
<tr>
<td>QF</td>
<td>Quantas Airways</td>
</tr>
<tr>
<td>RPK</td>
<td>Revenue per Passenger Kilometre. One fare-paying passenger transported one kilometre. RPKs are computed by multiplying the number of revenue passengers by the kilometres they are flown.</td>
</tr>
<tr>
<td>Scheduled airline</td>
<td>Any air transport enterprise offering or operating a regular air service according to a published timetable (although many operate as a non-scheduled services).</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Schedules Services</td>
<td>Flight scheduled and performed according to a published timetable or so regular or frequent as to constitute a recognisably systematic service, which is/are open to use by the public on an individual ticketed basis.</td>
</tr>
<tr>
<td>SIQ</td>
<td>Singapore Airways</td>
</tr>
<tr>
<td>Short/Medium Haul</td>
<td>The sum of Geographical Europe, North Africa and Middle East traffic in Europe, or for American domestic market.</td>
</tr>
<tr>
<td>TAP</td>
<td>Air Portugal</td>
</tr>
<tr>
<td>Terminal/Gate slot</td>
<td>A gate at an airport terminal for alighting and boarding of passengers and freight at a specific time.</td>
</tr>
<tr>
<td>Total Longhaul</td>
<td>The sum of North, Mid and South Atlantic, sub-Saharan Africa, Far East/Australasia and other routes for Europe.</td>
</tr>
<tr>
<td>USAir</td>
<td>USAirways</td>
</tr>
<tr>
<td>Yield</td>
<td>The average amount of revenue received per revenue tonne –kilometre. Passenger yield, passenger revenue per RPK.</td>
</tr>
</tbody>
</table>
Yield management

Manipulation of prices to attempt to obtain the most revenue from each flight. Yield management systems are based on estimating the number of full fare tickets that would be sold on a particular flight, then offering the remaining tickets at varying discounts to induce demand from more price-sensitive passengers. The discounted tickets generally have conditions so they are less attractive to those passengers who are willing to pay full fare.
AIR FREEDOM RIGHTS

The freedoms of the air were identified in 1944 through the International Air agreement of December 1944.

1st Freedom: to overfly one country en-route to another.

2nd Freedom: to make a technical stop in another country.

3rd Freedom: to carry passengers from the home country to another country.

4th Freedom: to carry passengers to the home country from another country.

5th Freedom: to carry passengers between two countries by an airline of a third on two routes with origin destination in its home country.

6th Freedom: to carry passengers between two countries by an airline of a third on a route outside its home country.

7th Freedom: to carry passengers between two countries by an airline of a third on a route outside its home country.

8th Freedom or cabotage: to carry passengers within a country by an airline of another country on a route with origin/destination in its home country.

9th Freedom or Stand-alone cabotage: to carry passengers within a country by an airline of another country.
List of Figures

FIGURE 1: THE WORLD’S LARGEST AIRLINES/PASSENGERS CARRIED .................................................. 26
FIGURE 2: INTERNATIONAL SCHEDULED PASSENGERS 1996 .......................................................... 26
FIGURE 3: MAJOR TRAFFIC FLOWS ................................................................................................. 28
FIGURE 4: DISTANCES WITHIN REGIONS 1996 ............................................................................. 29
FIGURE 5 ROUTE MIX WITHIN REGIONS 1998 ............................................................................ 30
FIGURE 6 AIRLINE COSTS .............................................................................................................. 49
FIGURE 7: THE AVERAGE AEA AIRLINE EMPLOYEE 1996 ........................................................... 50
FIGURE 8: WORLD CRUDE OIL PRICES ......................................................................................... 51
FIGURE 9: JET FUEL PRICES ......................................................................................................... 51
FIGURE 10: SHARE OF TOTAL WORLD RPKS IN % ...................................................................... 59
FIGURE 11: MAJOR ALLIANCES AMONG AEA AIRLINES .......................................................... 61
FIGURE 12: COMPETITIVE MATRIX ............................................................................................ 93

List of Tables

TABLE 1 ICAO SCHEDULED PASSENGER TRAFFIC FORECAST FOR 1999-2001 .................................. 20
TABLE 2 GROWTH IN SCHEDULED WORLDWIDE .......................................................................... 24
TABLE 3 GROWTH IN PASSENGERS & FREIGHT VERSUS WORLD ECONOMIC GROWTH ........... 24
TABLE 4: SCHEDULES PASSENGERS CARRIED .............................................................................. 27
TABLE 5: SCHEDULED PASSENGER AIRLINES IN THE EU ............................................................ 34
TABLE 6: LOW FARE CARRIER WEEKLY SEATS ............................................................................ 35
TABLE 7: FLIGHTS DELAYED IN EUROPE ...................................................................................... 44
TABLE 8: COST DISTRIBUTION PASSENGERS SERVICES .............................................................. 53
TABLE 9: SIZE OF THE ALLIANCES IN MILLION PASSENGERS CARRIED ................................ 60
TABLE 10: TOP 10 WORLD AIRPORTS (1999) .............................................................................. 108
TABLE 11: TOP 10 AIRPORTS IN TERMS OF INTERNATIONAL PASSENGERS .............................. 109
TABLE 12: NON-AERONAUTICAL CHARGES ............................................................................... 112
TABLE 13: TOTAL CHARGES AT EUROPEAN AIRPORTS PER TURNAROUND IN US$ ................. 118
TABLE 14: TOTAL CHARGES AT AMERICAN AIRPORTS PER TURNAROUND IN US$ .................. 119
TABLE 15: TOTAL CHARGES AT FAR EAST AIRPORTS PER TURNAROUND IN US$ .................... 119
TABLE 16: THE STAR ALLIANCE .................................................................................................. 202
TABLE 17: 2000 SEAT SHARES (%) OF TOP 5 COMPETITORS BEFORE CARVEOUTS .................. 205
TABLE 18: AA AND UA AFTER TRANSACTION COMPLETED OF US MAJOR CAPACITY ............ 205
TABLE 19: THE ONEWORLD ALLIANCE .......................................................................................... 211
TABLE 20: THE QUALIFLYER ALLIANCE ....................................................................................... 222
TABLE 21: WINGS ALLIANCE ....................................................................................................... 222
TABLE 22: SKYTEAM ALLIANCE ..................................................................................................... 223
TABLE 23: MARKET SHARE OF THE 5 MAIN AIRLINE GROUPS .................................................. 223
CHAPTER I

1.0 BACKGROUND OF THE AIRLINE INDUSTRY

The airline industry is known to be one of the biggest industries in the world. It started in 1919 immediately after the First World War (1914-1918). But it was only after the end of the Second World War that the airline industry extended and started its major expansion. More than fifty years later the industry now caters for around 1.25 billion passengers a year, generating $250 billion in revenue and employing about 1.5 million people (Hanlon, 1996; IATA 1995/96).

The airline industry is of such importance in terms of revenue and employment, that it generates $3400 billion a year in revenue, accounts for approximately 10% of world GDP, takes 11% of consumer spending, and employs over 200 million people. It is the key element in the world’s largest industry that is Travel and Tourism (IATA, 1996; ICAO, 1997; AEA, 1997; other industry sources).

The growth in the airline industry in the last 50 years has been consistently above the growth in world GDP (Hanlon, 1996). Only once in the last 50 years has the world air traffic fallen, namely in 1991. The principal reasons for this fall, of 3%, was the economic recession in the early 1990s, the Gulf War, and threats of international terrorism (Hanlon, 1996). After the end of the Gulf War there was a good recovery in traffic, which once again is growing strongly. The forecast for the next 5 to 10 years is an increase of between 5% and 8% per annum according to industry sources (IATA, 1995; Hanlon, 1996).

The airline industry has achieved high rates of growth but with the exception of a few companies such as British Airways, Delta Airline, Swissair, Singapore Airlines and Cathay Pacific, not high rates of profitability.
In fact, airlines’ profit margins have been well below average compared with firms in other industries (Hanlon, 1996; FT, 1996; IATA, 1995). This is due to the fact that airlines have not come to terms with the new trends in price deregulation, tough competition, new technology, low cost competitor airlines, etc. However there are a few notable exceptions, for example British Airways, Swissair, Royal Dutch Airlines (KLM), Delta Airlines, American Airlines and United Airlines (until end year 1999).

Therefore, the numerous changes within the industry, and the understanding of the dynamic of airline competition in Europe and worldwide, have made it more difficult for managers to develop a sustainable competitive strategy and to implement necessary organisational and strategic changes. Within this context airline managers are under constant pressure to improve performance, and are seeking different approaches to increase the efficiency of their operation and to gain or keep their competitive advantage. It is in this type of working environment and competition that carriers and the industry had to undergo restructuring to be ready to face the new millennium and the increase of competition that goes with it.

The airline industry is undergoing some radical restructuring (Economist 1996; IATA, 1995; ATW, 1997). Global aviation has undergone changes due to the liberalisation of worldwide markets, bilateral agreements, increased domestic and international competition, and the privatization of some airlines. Between 1945-1994, the industry was dominated by state owned airlines, and the governments which owned them, had to subsidize and finance them. The reason for doing this was, and still is, a way to promote the airline-owning countries, or to use the airline as an instrument to further their mercantilist or trade interests. During the 1970s and the early part of the 1980s the competition among airlines around the world was artificial; this was due to the stringent industry regulation that was imposed by governments and to the lack of new entrants in the market according to industry sources.
Whilst airlines were protected by government ownership and regulation, they were safe from serious competition on their domestic and international routes. In most cases, the industry showed an oligopolistic market structure. According to industry sources, price competition was non-existent, promotional efforts were limited, product and service quality was uneven, and little had been done to develop efficient distribution systems through hub and spoke networks (Borenstein, 1989).

In a market that was dominated by the airlines themselves e.g. flag carriers it was thought that if you offered flights from one destination to another, people would simply take them (Erdener, 1994). Since then, the last 20 years have seen a number of changes in the global airline industry, and these have had profound effects on the development of this sector of the economy in most countries. Socio-economic, demographic, political and technological changes led the way to transform the airline industry and this transformation has occurred in the way airlines do business domestically as well as internationally.

One of the main reasons for such change was the competition engendered by the deregulation of the USA market, the privatisation of some European carriers, for example British Airways, Royal Dutch airline (KLM) the Scandinavian airline SAS, Lufthansa, the need to generate profit in order to finance new acquisition and, to some extent, to relieve the governments of their role as financial backer. In this restructuring process, national (state owned airlines) and private airlines had to modify their view on business policies, adopt a more customer oriented marketing policy and new strategies.
The factors, which have triggered the restructuring of the Airline Industry, are:

- The advent of the deregulation of the American market (1978) followed by other countries such as Canada, the UK, and later on by the European Union.

- The creation of a new competitive environment through the deregulation of the domestic markets in some parts of the world, new aircraft, new technology, especially on the Atlantic and Pacific routes, between North America and Europe, and America and East Asia. Frequent flyer schemes, recession, political instability, strong currencies and wars also played their part.

- Economy downturn, slump in spending power, insecurity have created bankruptcies, mergers, buy-outs and restructuring i.e. downsizing decision making in the airline industry (especially since the 1991 Gulf War).

- The need to increase market share and to have access to new routes through alliances, mergers, and code sharing in order to expand the already existing route network (mainly for the privatised carriers such as British Airways, Lufthansa, KLM, Swissair, Cathay Pacific, Singapore Airlines). In the past few years, a number of European, American, Asian and to some extent South American carriers, have joined forces to access other markets and offer to the passengers a better service at an affordable price.

Both government and politic involvement in the day-to-day management of the carriers were often cited as reasons for the inefficiency of the airlines, particularly in Europe. Until recently, airline managers were not able to implement the new strategies and structures that would make the airlines more competitive and cost efficient. For example, lower fare tickets, better use of internal resources, outsource units when necessary without taking into account the wishes of the governments concerned.
The fear of making radical change in the airline structure, and the laying off of employees who could provoke strikes and bad public relations for the governments, were other reasons for such failure.

Those airlines in private hands, such as British Airways, Swissair, KLM had undertaken the necessary restructuring, i.e. outsourcing departments, alliances, code-sharing etc, to buy out the competition and become more cost efficient. However, even in private hands these airlines are still influenced by politics, i.e. traffic right, labour laws, price competition, airport taxes, etc. Within this context airline managers are under constant pressure to improve performance, and are seeking different approaches to increase the efficiency of their operation and to gain or keep their competitive advantage.

Political influence can not only restrict an airline company’s ability to be successful, but also impede new regulations and merge and ownership of stakes or shares in other carriers such as British Airways with Quantas, US Airways, TAT and Deutsche British Airways. Open skies, or the final chapter of the airline deregulation in Europe is one of these new regulations, which will determine whether companies can survive. With the opening of the skies in 1997, European Union Airlines were allowed to fly from one country to another country and exercise the right of cabotage, without having to ask for the right to fly from governments or being restrained by one fare structure (as used in the past to protect the national flag carriers).

Government protection of flag carriers often creates an artificial market with subsidies, special loans, and lobbying in which the profitability of the state owned carriers is determined more by the number of competitors allowed on particular routes than by the quality and pricing of their services. However, such influences became less powerful in the North America market at the end of the 1970s and in Europe in 1994, due to the "mini deregulation and open skies policies," and indeed became illegal in 1997 through Open Skies, signifying total price and route deregulation in the Europe Union.
As stated above, in recent years, the airline industry and environment has experienced an increased level of competition.

American deregulation, has pushed the European carriers to decrease their prices on transatlantic routes in order to compete with the American carriers, who could offer a far lower ticket price due to their lower cost labour, and the USA has carriers comparable to those of their European counterparts.

Within this context of expansion the airline business has become an increasingly competitive one since the US Deregulation Act of 1978. Since then the forces of market deregulation has spread across the globe (Morrison and Winstone, 1996). Europe has undergone a process of market deregulation, which culminated in the introduction of the third package of deregulatory measures, (which took full effect in 1997) and which removed restrictions on routes, fares, frequencies and flight schedules.

Competition among airlines has evolved in this environment (Doganis, 1994; Button et al., 1998). The trend towards private ownership of previously state owned and subsidy airlines has started to transform airlines into market-driven businesses. This in turn has intensified airline competition.

The increase of competition has driven some well-known American and European companies to or close bankruptcy, e.g. Trans World Airline (TWA), Air France, Alitalia, Iberia and TAP. Some airlines such as Pan Am and Laker airways have disappeared from the international airline map and so did TWA, Swissair, Sabena while this thesis was being written. It has been of vital importance for European Airlines (both nationalized and non-nationalized) and American carriers, to lower their cost, and reorganise their company structure in order to stay in the market and improve their efficiency and profit.
State owned companies such as Air France, Alitalia, TAP, Iberia and Olympic Airways would not have survived without the incentives and subsidies of their respective governments, especially during the recession and Gulf War (1990 to 1994) period.

Only a few European carriers e.g. Swissair, SAS, British Airways, and KLM have been able to rival the American and Asian carriers during this period. One example of success during an economic recession is British Airways, who recognized in the mid-1980s the necessity of being more cost efficient and low cost in order to be successful and powerful in a market where competition can be deadly.

In order to be more competitive and more cost efficient British Airways at that time developed new strategies, such as getting rid of non-profitable routes, outsourcing units, which were too expensive to be run internally, and making alliances and code-sharing agreement with different airlines. British Airways has been one of the first European airlines to sign code sharing agreements with Singapore Airlines and Quantas; alliances with USAir (now called US Airways) and Cathay Pacific and other carriers; as well as being one of the first to create subsidiaries (franchisees) and buy regional carriers such as Deutsche British Airways and TAT, and use them as feeders for their long haul routes.

1.1 Characteristics of the Airline Industry

The objective of the airline industry is to provide a service at a price that people are willing to pay and to keep costs below price so that a profit can be made (ATA, 1997; and other sources). In many respects, it is no different from other industries or businesses e.g. telecommunication, banking, financial institutions, and the travel service industry. It is important, however, to recognize certain factors of the airline business in order to understand the industry.
First of all, the airline industry is a service industry. However, due to the equipment and facilities involved in air transportation, it could be conflated with the manufacturing industry (ATA, 1997). Carriers perform a service for their customers transporting them and their belongings from one point to another for an agreed price (IATA, 1995; ATA, 1997).

Comparing it with other service industries such as banks, insurance companies, hotels, catering, or even corner shops, the airline industry may seem similar. However, there is no product given in return for the money paid by customers, nor is inventory created and stored for sale at some later date (ATA, 1997). This means that once the flight commences the unsold inventory or seats cannot be stored for further sale.

When comparing the airline industry with many service industries, airlines need more than a single outlet e.g. shops telephones, and a network. They need a huge range of expensive equipment and facilities including of course the airplanes, flight simulator training, maintenance hangars, offices, representation, and check-in and ticketing facilities around the world (industry sources, ATA, 1997).

The airline industry is a “capital intensive business” (ATA, 1997; and other sources); this means that large sums of money are required to get started, but also to finance the development of the carriers and the replacement of the equipment that is needed to run such business properly.

Most of the equipment is financed through loans or the issuance of stock, rather than outright purchase (ATA, 1997; IATA, 1998). More and more airlines are leasing equipment, including that previously owned but now sold and leased back (IATA, 1997). As the industry is a capital-intensive business, the need for consistent profitability over the long term is important (ATA, 1997; and other sources). This is in order to finance the future development such as buying stakes in another airline, recruitment of staff and pilots, training and so on.
Another characteristic of the airline business that cannot be compared with other service industry is its high cash flow (ATA, 1997; other sources). Large and medium airlines own or lease large fleets of expensive aircraft, which depreciate in value over time, generating substantial positive cash flow (profits plus depreciation). The airlines use their cash flow to repay debt or to acquire new aircraft (ATA, 1997; IATA, 1997).

The consequence is that when profits and cash flow decline, a carrier's ability to repay debt and to acquire new aircraft is seriously jeopardized.

1.1.1 Labor intensive nature

When comparing the airline business with other service industries it should be noted that it is very labor intensive. Most of the major airlines employ an army of pilots, flight attendants, mechanics, baggage handlers, reservation agents, gate agents, ticketing agents, security guards, cooks, cleaners, managers, accountants, lawyers and so on. The automation of some of the tasks has enabled airlines to keep the cost down and to facilitate the transfer of information and work duties. However, even if the airlines have computerised most of their operations, they are still in a service business, where customers require, and often demand, a lot of personal attention (ATA, 1997). One third or even more of the revenue generated by the carriers goes to pay its workforce (IATA, 1996).

Due to its labor-intensive nature and because of its long history as a regulated industry, the airlines tend to be highly unionised. The labor costs in the airline industry are among the highest of any industry (IATA, 1997; BA, 1995/6; AEA, 1998). When the industry was regulated, airfares and freight rates were set on a cost-plus basis, so unions were able to negotiate high rate of pay (ATA, 1997). Further, it is a known fact in the airline industry that airline staffs at all levels have been overpaid in the past. With the increase of competition, the appearance of no-frill/ low cost airlines and the opening of new markets through deregulation; many carriers are under pressure to lower their labor costs.
However, due to the power unions have in the airlines, and to the number of unions e.g. pilots union, flight attendants’ union, maintenance union, ground staff union, baggage handlers union etc, to accomplish such goals is difficult. Competitors can move in on an airline’s customers and markets when employees go on strike. A very good example is British Airways 1998 summer strike, which cost the company millions of pounds. The result of this is a thin profit margin.

Therefore, carriers have to find new ways of improving their passenger load, route networks and internal structure to be more efficient and profitable.

To travellers, the cost of the tickets may seem high compared with the amount of money they spend on other goods and services, however, the cost of providing the transportation service they are getting is almost as high as the price they are paying (ATA, 1997).

Therefore, for the airlines the challenge is to earn enough profit to satisfy stockholders, and invest the money earn in new facilities, toward future airline growth.

1.1.2 Pricing policy and Passenger demand

Since the deregulation of the industry airlines have had the same pricing freedom as companies in most other industries. They have set fares and freight rates in response to both customer demand and the prices of competitors (ATA, 1997). However, the comparison stops there. The pricing policy in the airline industry is a characteristic that is indigenous to the airline industry. An individual carrier provides services on many routes. On one or more given routes there may be many separate consumer segments. There are first class services, business class services, and coach or economy class services (ATA, 1997; and other sources).
Some are highly price sensitive e.g. students, retired people and groups; others are moderately price sensitive such as package holiday customers, and people on family vacations, and others are less price sensitive e.g. first class passengers and business class passengers. Demand on different routes and in the various customer segments, is highly variable. The demand can vary by season, days of the week, hours of the day and over the business cycle (Tretheway, Waters, 1998) and this is reflected in the pricing policy of the airlines.

The consequences are a quicker response by the airlines to adapt their fares to customer demand, and passengers sitting in the same section on the same flight paying different prices for the same seats (IATA, 1996/7; ATA, 1997; and other sources).

The fundamental factors affecting the passenger demand are incomes, fares and service levels (Airbus, 1996; Hanlon, 1996). It may look the same as other service industries such as telecommunication and banks. But what differentiates it is the way the service or product is perceived by the customers and by the management of the airlines. To some travellers it may not make sense to have different prices for the same seats, but to others and to the airline managers; the seats have different value.

For example, it is far more valuable to a businessman who has the opportunity to seal a deal with an important client by visiting him than to someone who wants to visit a friend or relative. "This customer will only visit his friend if the price is right for her and him, that is relatively low. On the other hand, the businessman will pay a higher price or premium in order to seal the deal" (ATA, 1998 website airline handbook).

The main objective for the airlines is to maximise the revenue from each flight by offering the right mix of full fare and discounted tickets (IATA, 1997; ATA, 1997; and other sources). Not enough discount in a period of weak demand for the flight, and the plane will take off with a lot of empty seats.
This means a loss of revenue for the airlines and no possibility to recycle the empty seats, like in other service industry areas (ATA, 1997). However, if the sale on discounted tickets is too high, it can sell out a flight well in advance and direct potential last minute full fare passengers who may be willing to pay a high premium to the competition (ATA, 1997). This is another lost revenue opportunity that airlines must take into account when setting prices.

The income, passenger demand and service levels are important, so a balance between those requirements and the airline’s needs are of vital importance. This process is called “Yield Revenue Management.” It is a complex process, requiring sophisticated computer software that helps airlines estimate the demand for seats on a particular flight and set a particular price for the seats (IATA, 1996; ATA, 1998; ICAO, 1996).

However, having the right pricing policy and the right passenger demand is not the only requirement for the airline industry. Without the right flight schedule and even if the ticket is lower than the competition, the travellers may not want to fly with the company that offers the cheapest airfare. Along with price, schedule is the most important consideration for air travellers (IATA, 1997). Since the deregulation of the industry, airlines have been free to serve whatever domestic markets they want e.g. European or American. To cope with increasing demand, carriers have to adjust their schedules in response to market opportunities and competitive pressure (Economist, 1997).

For example, business traveller’s flights available to them on the same airline if, for instance, the business meeting is running longer or shorter than expected. To some extent, the more flights a company has on the same route, the more flexible a full fare passenger is and the price often becomes less important to them. In other words, a carrier that has several flights a day between two cities has a competitive advantage over other airlines that serve the same city less frequently.

Another interesting characteristic of the airline industry is that the airline business is seasonal, whilst many other service industries are not.
For example, telecommunications, banking and insurance industries work all year round with no high or low peak season, whilst the travel industry has both. The summer months are extremely busy as many people take vacations at that time of the year, even if personal habits are changing nowadays. On the other hand, the winter season is considered by the industry to be a fairly quiet season, with the exception of Christmas or winter holidays (ski resorts in the Alps and elsewhere). However, as both summer and winter holidays become more general in the near middle term, future airlines will not have such huge gaps between the winter and summer season in terms of revenue.

This trend can be explained by the change in travelling habits. There is no set winter or summer season in the mind of customers, because they are looking at summer and winter seasons in both the southern and northern hemispheres.

1.1.3 Horizontal and Vertical Integration

In comparison with other Service industries, there is a growing tendency for airlines to develop global strategies, especially amongst major companies such as British Airways, American Airlines, Delta Airways, KLM and Lufthansa who engage in horizontal integration, whilst other service industries tend to look to vertical integration.

This is due to the distinctive feature that the airlines have of being a cross border industry, and therefore, to be competitive and to increase market share, carriers have to make agreements with the host country airlines and government; or buy stakes in smaller airlines, in order to be able to fly passengers from one destination to another. Other service industries can sell their products or service to the customer of the country where they are based directly e.g. banks, telecommunication companies, and insurance companies. Whilst in other service industries, it is accepted that mergers may happen in order to increase market share and cut costs, the airline industry is restricted in many ways. In the European Union, foreign ownership of airlines is limited to 49.9 per cent, while in the US the limit is 25 per cent (Skapinker, 1999).
Many citizens and their governments regard their airlines as national property, although most of them are now in private hands. Air France, Alitalia, Iberia and Air Portugal (TAP) are about to lose their links with their government (time of writing end 1999), whilst in the USA, and Asia most of the main carriers are in private hands. However, the nationality of these airlines is still an important factor in the customer’s decision process of choosing an airline to fly with. Also, the good reputation of a national carrier can be used by governments as a promotional tool to attract foreign investment.

One example of how important national identity is for an airline is found in British Airways. When British Airways tried to remove the British flag from their planes the outcry was so strong that the company had to restore the flag to half of its fleet. Or take Air Canada and Canadian Airlines, who were given permission to discuss whether to merge or to divide up the domestic market among them. However, the Canadian government insisted that it would not give its approval for a merger with a foreign carrier (Skapinker, 1999). The response by worldwide airlines to such a barrier or limitation was, and still is, the formation or alliances, code sharing, franchises and acquiring ownership stakes.

The two main directions taken by airlines are horizontal integration and diversification. Horizontal integration involves extending service networks worldwide. The reason for this is that the main methods by which firms grow are by internal growth, mergers and take-over (Tribe, 1996). As internal growth is a slow process, firms can accelerate their growth by mergers, acquisitions or alliances.

Vertical integration occurs when a firm takes over or merges with another firm in the same industry, but at a different stage of the production or value chain. Some examples are Thompson Holiday or Airtour International with their ownership of charter airlines, Britania and Airtours and of the travel agency chains, Lunn Polly and Going Places (Tribe, 1996). The main reason for vertical integration is to ensure a market for an operator’s product (Tribe, 1996).
Vertical integration can be seen as an aggressive way to sell a product at the expenses of the competitors or as a defensive way to make sure rivals do not monopolize retail outlets (thus blocking the selling of your product).

Horizontal integration occurs when firms merge or make alliances, in the same industry, at the same stage. The key motive for horizontal integration is to increase market share or to buy into an existing market and its customers, and at the same time reduce competition. This can be seen in the buy out of small regional airlines, creation of low-cost carriers, franchise, alliances and code sharing with your main competitors on the international and domestic routes.

Airlines tend to ally themselves with partners who have complementary route networks e.g. British Airways with USAirways, Quantas, Japan Airlines (JAL), American Airlines. These alliances or quasi horizontal integration not only includes the exchange of route networks or services as in other service industries, but also include the exchange of technology, shared marketing campaigns, employees, know-how, fleets and the understanding of other national cultures of countries where the airlines are operating.

Horizontal integration or alliances is not only exclusive or unique to the airline industry, it can be seen in other industries such as the pharmaceutical and telecommunication industries. In 1993, for instance, Glaxo Wellcome and Warner Lambert, announced that they were forming an alliance to develop and market over the counter drugs across the world (Hanlon, 1996).

1.2 Airline Growth

The airline plays a major role in world economic activity. In fact, over 1.25 billion passengers per year (ATAG, 1997) rely on the world’s airlines for business and leisure travel and over a third of the value of manufactured (export) is transported by air (ATAG, 1996).
The importance of this industry is such that in every region of the world, small, medium or large countries depend on the aviation industry to pump up their economy and increase their financial strength (taxes, tourism, foreign currencies, exchange of goods, raw material and finished products) (ATAG, 1996; ICAO, 1997; other sources).

In a study by the ATAG in 1997, it was reported that the airline industry accounted for 24 million jobs worldwide and had an annual gross input of US$1.140 billion in 1994 (ATAG, 1996; IATA, 1997). By the year 2010 aviation's economic impact could exceed US$1.800 billion with over 33 million jobs provided (ATAG, 1997; IATA, 1997; and other sources).

These results show the importance of the airline industry as a whole (airlines, airports, jetliners, fuel etc.) and the catalytic effect it has on the economy of countries. For example, the promotion of leisure and business activities, and the contribution to the growth of the internal and external wealth.

However, in order to sustain traffic growth and economic growth, it is important to understand the factors that are driving the world airline industry. Without an increase in the economic activity of a country, the relaxation of travel restrictions, the increase of leisure time, air transport policy liberalisation, political stability, increase of disposable income, and the decline of the real cost of air travel, to name a few, there would not be airline traffic or economic growth (industry sources).

Therefore, it is in the interest of governments to sustain the growth of air traffic, which in turn will bring potential high earnings and increase the international trade among countries around the world.

According to a report published by Mintel (1999) and other industry sources, the demand for international business travel and leisure travel is driven by economic growth, increased trade and the relative cost of travel and accommodation (Mintel, 1999).
The dismantling of international barriers such as the fall of the Iron Curtain (1989-1991), the Single European Market (1992-1993), the North American Free Trade agreement (NAFTA in 1994) and other agreements in Latin America (Mercosur, Andean Pact) and South East Asia have all contributed to economic growth (ICAO, 1996; Boeing, 1997; ATAG, 1996; other sources). It has also helped to free the world of international trade barriers. This dismantling is providing new market opportunities in terms of goods, people, and the switching of production from one country to another (industry sources).

These factors are responsible for an increase in the demand for international air travel (business and leisure), and market deregulation (ICAO, 1997; Mintel, 1999; and other sources).

This holds, even if the economic situation in some of the countries involved is not stable. Except for a catastrophic downturn in economic activity or serious political instability, the future demand for air travel is assured (industry sources in general). Past history demonstrated that all the factors e.g. deregulation, liberalisation, technology, alliances, mergers, laws, which have contributed to the demand for air travel, would continue to sustain the growth in the economic activity (Mintel, 1998). In 1997 some of the Far Eastern countries (Japan, South-Korea, Thailand etc.) have come under severe financial pressure due to the non-payment of debts by many corporations (IATA, 1997, 1998).

This resulted in the fall of many Asian exchange rates. Even if the problem in the Far East may give a warning signal concerning over capacity and a slow down in economic activity, it will not fall into a decline.

According to Mintel (1998):

The main reason is that a financial restructuring and a shakeout of some of the corporations should alleviate any tendency towards a major recession.
The Far East crisis was followed in 1998 (first half) by a financial downturn in some of the Latin American countries and Russia (IATA, 1998; Mintel, 1999). Following the downturn in these countries, the wave of economic uncertainty spread to many developed countries in the West (IATA, 1998; Mintel, 1999). However, it did not stop people traveling abroad.

The outcome of the economic uncertainty was the “redefinition” of the costs within the airlines. Those were and still are, labor, operating costs, commission, franchising of non-profitable routes, setting up of a new type of fare, improving services for Business Class, and looking at new technology. The result of the cost reduction is shown in the price of airfare tickets and is designed to attract customers.

Continuing economic growth, international trade and the reduction in the real cost of travel will continue to have a positive impact on the demand for international travel (long-haul and domestic routes) and scheduled airlines (IATA, 1996).

Even in times of recession, the demand for domestic and international travel has grown overall (Mintel, 1999). Although the long-term demand for travel is positive, there are several issues that the airline industry must address in the way they implement strategies. They are economic uncertainty (such as the abolition of duty-free), air traffic capacity, new technology, alliances, and a competitive response to low-cost/no-frill carriers (industry sources).

The air transport industry is one of the few, perhaps the only one, to have enjoyed growth for a long period of time (IATA, 1994/95). According to the ICAO, the growth in the air transport industry has been much greater than overall economic growth. Whilst during the period 1960-1995, the aggregate economic activities of the world measured by gross domestic product (GDP) increased at an average rate of 3.7 per cent.
The world airline schedule passenger traffic (domestic and international) measured in terms of passengers-kilometers, increased at an average annual rate of 8.9 percent for the same period (1960-1995) (ICAO, 1998).

Since the Second World War, passenger traffic has grown at an average annual rate of 12 per cent, although this was influenced by a high growth in the postwar period when the industry was still immature, according to a report produced by the ICAO (ICAO, 1994). Since the middle of the 1960s passenger traffic has grown at an average rate of 9 per cent per year. Not only has passenger traffic increased during that period, but so has freight and mail at an average rate of 11 and 7 per cent per year, since 1960 (ICAO, 1994/5/6).

However, the rate of growth is slowing down as the industry is becoming larger in terms of markets available and getting more mature (ICAO, 1996; and other sources).

World airline passenger traffic has recorded an average annual growth rate of 5.4 per cent over the decade 1982-92, even though it recorded its first ever decline in 1991, due to the Gulf War and the economic recession (Hanlon, 1996). The post Gulf War growth (1992-1994) for airlines was only 2.3 per cent, still higher than the other industries affected during this period e.g. car, electronic, telecommunication, and financial services. Since 1993/4, however, the industry profit has grown even more rapidly than expected and seems likely to go on doing so. In 1996 the 240 airline members of IATA have posted a record cumulative profit (gross) of $6 billion, $800 million more than in 1995 (IATA, 1996/7/8).

The rapid growth of Asian airlines, such as Singapore Airlines, Cathay Pacific and Malaysian Airlines, has effected the structure of the airline industry in general (IATA, 1996). Twenty years ago, the Asian airlines were responsible for only 10% of the world traffic, but now they account for more than 20%. The future growth expected in this region is between 8 or 9 per cent (since the Asian crisis, the growth has been reviewed) whilst in North American and European it is around 4 per cent (Hanlon, 1996).
The average growth forecasted by IATA over the period from 1993-1997 on scheduled-passenger traffic is 6.6 per cent (worldwide). A total of 412 million passengers was carried on the international scheduled services of IATA airlines in 1997 and more than 861 million on domestic services for a total of 1,273 million (IATA, 1997). The net record profit for 1997 was US$ 5 billion.

This result was achieved through higher load factors. International growth at 6.8 percent was much higher than domestic growth (as it has been since 1994). Total scheduled passenger traffic of the world's airlines is expected to grow at around 4 per cent in 1999, 5 per cent in 2000 and nearly 6 per cent in 2001 (see table 1), according to forecasts published by industry sources and ICAO (ICAO, 1998).

International traffic is expected to increase at 7.00 per cent per annum, while domestic traffic is expected to increase at an average annual rate of 3.5 per cent for the period 1995-2005, according to the ICAO. Total international and domestic scheduled passenger traffic generated by the airlines of the ICAO's member states was estimated at 2,630 billion passenger-kilometers for 1998. This is expected to rise to about 2,739 billion in 1999, 2,875 billion in 2000 and 3,038 billion in 2001 (ICAO, 1998).

Table 1 ICAO scheduled passenger traffic forecast for 1999-2001

<table>
<thead>
<tr>
<th>Region of airline registration</th>
<th>ACTUAL</th>
<th>ESTIMATED</th>
<th>FORECAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>35.9</td>
<td>56.2</td>
<td>4.6</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>253.5</td>
<td>639.5</td>
<td>9.7</td>
</tr>
<tr>
<td>Europe</td>
<td>494.2</td>
<td>655.2</td>
<td>2.9</td>
</tr>
<tr>
<td>Middle East</td>
<td>44.6</td>
<td>76.7</td>
<td>5.6</td>
</tr>
<tr>
<td>North America</td>
<td>684.6</td>
<td>1,020.4</td>
<td>4.1</td>
</tr>
<tr>
<td>Latin America/Caribbean</td>
<td>76.7</td>
<td>125.1</td>
<td>5.0</td>
</tr>
<tr>
<td>World</td>
<td>1,589.5</td>
<td>2,573.1</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Source: ICAO 1998
Traffic will vary by geographical region because of the impact of specific local or regional factors.

According to the ICAO (1998):

The traffic of airlines of the Asia/Pacific region, after a decline in 1998 due to unfavorable economic conditions, is expected to grow at the highest rate among ICAO regions, although at a significantly slower pace than that experienced over the past decade.

Markets for European airlines and for Latin America/Caribbean airlines are also forecast to be reasonably buoyant. Airlines of the Middle East and Africa are expected to experience moderate growth, close to the world average (ICAO, 1998; IATA, 1997). More moderate growth is expected in the mature North American airline markets (ICAO, 1998; IATA, 1997; and other sources).

In 1998 the world's scheduled airlines as a whole experienced an operating profit of 5.5 per cent of operating revenues, according to the International Civil Aviation Organization (ICAO).

The operating revenues of scheduled airlines for ICAO's member States (excluding operations within the Commonwealth of Independent States) are tentatively estimated at US $298,500 million in 1998 and operating expenses for the same airlines at US $28,000 million. Operating revenues and operating expenses both rose by 3 per cent over 1997. Expressed in US$, operating revenues per tonne-kilometer performed increased from 80.8 cents in 1997 to an estimated 81.6 cents in 1998 and operating expenses per tone-kilometer performed increased from 76.3 US cents in 1997 to an estimated 77.1 US cents in 1998” (ICAO, 1998 forecast report).
The net result for 1998 (after inclusion of non-operating items such as interest and subsidies, and deduction of income tax) is expected to be better than in 1997 (when it was 2.9 per cent of operating revenues). The operating and net results for 1998 reflect a generally "healthy world economy" (ICAO, 1998). However, setbacks in several major economies, notably in Asia, resulted in a substantial slowdown in traffic growth (ICAO, 1998).

According to the ICAO forecast report published in 1998, there was an increase of only 1 per cent over 1997 in total scheduled traffic of the world's airlines, (as measured in tone-kilometers performed), and a 2 per cent increase in international scheduled traffic (ICAO, 1998; IATA, 1998).

Capacity increases for passenger services continued to be kept in check and hence the average passenger load factor remained at 69 per cent for total services (ICAO, 1998). Despite a decline in yields (revenues per tonne-kilometer) in the Asia/ Pacific and Latin America/ Caribbean regions, total world yield increased by 1 per cent (ICAO, 1998). Low aviation fuel prices and the continuing efforts by airlines around the world to reduce their costs contributed to keeping operating expenses per tonne-kilometer performed in check (IATA, 1997/8).

The weak economic situation in Asia had a major impact on the traffic of the airlines of the Asia/ Pacific region in particular (IATA, 1997/8; ICAO, 1998; and other sources). For the first time in 30 years (recorded by ICAO), the airlines of the Asia/ Pacific region showed a year-on-year fall in traffic and a 2 per cent decline in terms of tonne-kilometers performed in contrast to the average 12 per cent annual growth over this period. This was the major factor in the slowdown in world traffic, since the airlines of this region contribute more than a third to the world total (IATA, 1997/8; ICAO, 1998; and other sources). However, the airlines of the Asia/ pacific region are expected to show the highest growth in passenger traffic at 8.5 percent per annum through to 2005 (ICAO, 1998), compared to the growth for the same period in Europe (4.5 per cent) and the Middle East (5.5 per cent).
In the same report published by the ICAO in 1998 (forecast report), the airlines of Europe and those of Latin America/Caribbean showed growth well above the world average in 1998, whilst those of the Middle East and North America showing growth close to the world average, and those of Africa below world average.

1.3 World airlines and European Airlines

As stated above, air transport remains one of the fastest growing industries of the world economy. It facilitates economic growth, world trade, international investment and tourism. It is central to the development taking place in other industries or to the globalisation of markets world-wide by means of the transport of goods, facilitation of travel between one country and another, and so on.

In a report published by ATAG (The Economic Benefits of Air transport):

The demand for air transport has increased steadily over the years, averaging 6% per annum during the 1980s and most of the 1990s.

Other industry sources came to the same conclusion and are expecting demand to continue growing at this rate to the year 2000. In fact, expected growth of the industry is more than twice the expected growth of global GDP for the same period (ATAG, 1996; and other sources). According to ATAG if this rate of growth remained steady, the volume of traffic would double every 12 years (see table 2, and 3).
Due to increasing passenger demand and increasing profit, it is hardly surprising that there are currently 1,200 scheduled airlines in the world, of which some 300 operate on international routes (IATA, 1996). According to ATAG the world’s airlines have a total fleet of about 15,000 aircraft operating over a route network of approximately 15 million kilometers and serving 10,000 airports.
This means that virtually every country in the world has its own airlines or national flag carrier. Most of these airlines depend on international traffic and in some cases, on domestic routes.

The North American airlines fly about 41% of the world’s total traffic (approximately half of the North American routes are domestic), while European carriers account for 25% (mainly long-haul) and carriers in the Asia/ Pacific region 23%, according to different sources (industry sources).

In terms of aircraft fleet and passengers carried, some of the biggest airlines in the world are Delta, United Airlines, American Airlines, Northwest, Continental, British Airways and Lufthansa. Three of these carriers (American Airlines, United Airlines and Delta) carried in 1997 over 250 million passengers on almost 1,800 aircraft. In terms of fleet size and passenger-kilometers flown, six of the ten largest airlines are from the USA (Figure 1). However in terms of international travel or passengers carried on long haul, the industry is dominated by European carriers (see figure 2).

This is due to the fact that most of the North American carriers have a stronger domestic market than international long haul. In terms of sales revenue, passengers carried, or the number of employees among the top 50 airlines, the North American based airlines dominate the market, followed by Western Europe, and the Asia/ Pacific region (see table 3).
Figure 1: The World's largest airlines/Passengers carried

<table>
<thead>
<tr>
<th>Airlines</th>
<th>Passengers Carried (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta Airlines</td>
<td>97.3</td>
</tr>
<tr>
<td>United Airlines</td>
<td>81.9</td>
</tr>
<tr>
<td>American Airlines</td>
<td>79.3</td>
</tr>
<tr>
<td>US Airways</td>
<td>56.6</td>
</tr>
<tr>
<td>Northwest Airlines</td>
<td>52.7</td>
</tr>
<tr>
<td>All Nippon Airways</td>
<td>36.4</td>
</tr>
<tr>
<td>Continental</td>
<td>25.7</td>
</tr>
<tr>
<td>British Airways</td>
<td>33.2</td>
</tr>
<tr>
<td>Lufthansa</td>
<td>23.1</td>
</tr>
<tr>
<td>Japan Airlines</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Source: BA Internet web-site 1999

Figure 2: International scheduled passengers 1996

<table>
<thead>
<tr>
<th>Airlines</th>
<th>Passengers Carried (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Airways</td>
<td>36.7</td>
</tr>
<tr>
<td>Lufthansa</td>
<td>30.1</td>
</tr>
<tr>
<td>American Airlines</td>
<td>16.7</td>
</tr>
<tr>
<td>Air France</td>
<td>15.6</td>
</tr>
<tr>
<td>KLM</td>
<td>12.9</td>
</tr>
<tr>
<td>Singapore Airlines</td>
<td>11.8</td>
</tr>
<tr>
<td>United Airlines</td>
<td>11.7</td>
</tr>
<tr>
<td>Japan Airlines</td>
<td>11.3</td>
</tr>
<tr>
<td>SAS</td>
<td>11.0</td>
</tr>
<tr>
<td>Cathay Pacific</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Source: BA Internet web-site 1999
83% of world scheduled air transport activity takes place within and between, three main regions of the world: North America, Europe and the Asia/Pacific area (figure 3). While comparing internal traffic among the three main regions, European traffic is significantly smaller than in the other two regions (AEA, 1999).

According to the Airbus Global Market forecast, these three main regions make up the bulk of the air transport or airline industry in terms of the number of airlines and aircraft. It also shows that the concentration of carriers is higher in the European continent than in other regions around the world (each country has its own flag carrier). However, the number of aircraft used in Europe and the Asia/Pacific area is smaller than in the North America region. This is due to the proximity of countries in Europe and to some extent the Asia/Pacific area, and also competition from other means of transportation (train, car, boat, coach) in Europe.
The features of the competition between AEA (Association of European Airlines) and those of the two other main regions are "the massive size, the strength of the US major airlines and their huge domestic market, and the consistent profitability of the Asian/Pacific airlines" (AEA, 1998/99; IATA, 1996/97). However, according to industry sources, due to the 1997 plus economic recession in Asia, the profitability of the Asia/Pacific airlines can no longer be taken for granted. According to the AEA 1998 report, the net result for the Association of Asia Pacific Airlines (AAPA) declined from a profit of US$ 1.1 billion to a loss of $ 0.8 billion, a drop in operating ratio from 102.1 to 98.3 for the financial year 1997/98 (AEA, 1998).

The impact of the crisis in the Asian airlines was mainly felt on the intra-Asia/Pacific routes, transpacific and in the growth on the Europe-Far East routes (AEA, 1999; and other industry sources). However, the members of the AEA managed to maintain some growth in the market, while the Asian carriers failed to post a consistently higher growth rate on their Europe-Far East/ Australasia services (AEA, 1998/99).

According to industry sources, while comparing the three main airline groupings it is important to consider their geographical position. The AEA, the AAPA, US major airlines have domestic and long haul trip length; the comparison however, stops there (AEA, 1998).
The length on intra-regional services between European, Asian and US major carriers is different (see figure 4).

According to the AEA (1998), the Asian Intra-regional services average trip length is much longer due to the distance between countries and the time it takes to travel from one destination to another. In Europe the time to travel and the shorter distance of flights is smaller due to the relatively close proximity of countries. The medium and short haul market with sectors up to 4000 km, flown by the major US airlines and are virtually all domestic (AEA, 1998).

**Figure 4: Distances within regions 1996**

<table>
<thead>
<tr>
<th>Distances within Regions 1996</th>
<th>Passenger trip length in kms</th>
</tr>
</thead>
<tbody>
<tr>
<td>A E A</td>
<td>AAPA</td>
</tr>
<tr>
<td>Domestic</td>
<td>527</td>
</tr>
<tr>
<td>Intra-European</td>
<td>1,092</td>
</tr>
<tr>
<td>Intercontinental</td>
<td>7,359</td>
</tr>
<tr>
<td>Total Scheduled</td>
<td>2,095</td>
</tr>
</tbody>
</table>

Source: AEA report 1998

As stated previously, the six biggest airlines in the world in terms of passenger numbers and the four largest in passenger-km are all US-based. However, only a small proportion of the US business in comparison to the European and Asian airlines is international. However, due to the slow-down of the home market in recent years (AEA, 1998; IATA, 1997/8), the US airline industry is thought to be involved in a change of strategy and to be looking for future growth by expanding more strongly overseas (AEA, 1998). The route mixing for the three airline groupings shows that two-thirds of AEA traffic is operated in competition with other internal groupings, compared to less than half for the AAPA airlines and just over a quarter for the US major airlines (see figure 5).
In 1996 the 25 members of the Association of European Airlines (AEA) posted their first profit since 1989. From a deficit of $7.5 billion between 1989-1994, the European airline industry recorded an operating profit of a little more than $1 billion in 1995 (O'Toole, 1996). Since 1994 industry profitability has not ceased to increase. The growth in the market in Europe has been called “prodigious”.

The output in terms of passengers and passenger-kilometers and airline income has increased, the number of domestic and cross-border routes operated has expanded by more than 11% in 5 years (AEA, 1998; IATA, 1997/8; Europa, 1998). Also, the number of flights has increased by around 30% during the same period (1993-1998). The reasons behind this turn-round include the deregulation of the industry, the decision by the politicians to create a Single Market for all EU members, the increase of competition on intra domestic and long-haul, and the restructuring of the AEA member carriers.

Prior to liberalization the intra-European Community market was governed by bilateral agreements between member states. The different states tended to tightly control route entry and capacity.
According to an extract from British Airways company report (1998):

International routes were single designation, so that only one carrier of each country was permitted to operate.

Fares were almost entirely decided by agreement between airlines under the auspices of IATA and not by competition, as is now the case.

Three packages of air transport deregulation in Europe have been introduced (1987, 1990 and 1992 effective since 1993 and 1997 final liberalisation). The most important and radical change is the "third" package (see the 7 freedoms of the airlines). The third package is designed to stimulate more open competition and to reduce European airfares, which, on average are still one third higher than in the USA (Hamil, 1993). This package was supposed to allow European airlines to set their own price, to give freedom to fly between any EU countries, and to establish cabotage rights. It is true to say that prices have fallen down since 1987, but not as much as would have been expected.

However, even if the increase of competition on the same routes (more than two airlines) has only been seen recently following the last part of the deregulation package in 1997 (Open Sky) and the appearance of new small low cost/ no frill airlines; it has changed the way the European industry is structured (internal re-organisation, change of structures, outsourcing, franchising, etc.) and has also changed its profitability.

1.4.1 Structure of the European Airline Industry Market

In the last few years the airline industry has had to respond to the challenge of market liberalisation in Europe, to adjust to the new competitive environment and deal with the pressure of the US open skies strategy. To stay competitive on the global network (worldwide) and on the domestic market (intra-European and regional) European airlines have had to develop innovative strategies.
Furthermore, the European airlines had to cope with the arrival of new airlines (low-cost/ no-frill airlines) and the evolution of the Single Market (1992-1993) into a monetary union, which has boosted trade within the European Union. Also, the Single Market has boosted business travel within the European Union.

All these changes in the last decade, have made airline managers innovate in the way they implement strategies in order to enable them to make improvements in productivity, increase their market share in Europe and worldwide, offer value for money to business and ordinary passengers and at the same time generate jobs. In other words, the main airline companies in Europe had to go through a very arduous restructuring process in order to be successful and to gain commercial viability. Some of them have been successful, (British Airways, KLM, Lufthansa, Scandinavian Airlines) others had to rely mainly on their government to finance the restructuring of their airlines (Air France, Alitalia, Iberia, TAP).

However, since 1997 state funding has been outlawed, but due to the approval by the European Commission of funding made available by governments e.g. France with Air France, Italy with Alitalia or Spain with Iberia, these airlines have been allowed to continue or finish their restructuring process in order to make a smooth transition to a liberalized single market.

The authorization for such state aid has to comply with strict conditions in order to avoid possible distortion of competition and time limit to finish the restructuring process (Europa, 1998).

Competitive pressure is also bringing down fares. When competition is introduced on a particular route, it is a well-known fact that consumers enjoy on average fare reductions of between 10 and 24%, depending on the type of fare. The European airline industry is divided in a “three tier structure” according to different industry sources, scheduled passenger services, charter passenger services and airfreight services.
The first division includes airlines such as British Airways, KLM Air France, Lufthansa, Alitalia, Iberia, Air Portugal (TAP), Scandinavian Airline, the main AEA members, that fly international, intra-European and domestic routes. Also, it includes carriers that operate reasonably large route networks, within Europe and to some extent internationally, for example British Midland.

The other divisions include carriers that belong to the European Regions Airline Association e.g. Air Liberty, Air Engadina, British Midland Express, etc. that fly intra-regional and also intra-European routes. The definition of a regional airline is provided by the ERA is “an airline that flies from regional point to either another regional point or to a major hub airport” (ERA, 1997). The last division is the low cost/ no-frill airlines such as Go, Ryanair, Easy-Jet, Virgin Air, Air One, carriers which fly mainly from secondary airports such as Stansted, Luton, Ciampino, Dusseldorf, Paris-Beauvais etc.

The second tier and third tier structure of the European airline industry is made up of charter airlines and airfreight services. According to industry sources airfreight has never had the same economic impact as the scheduled passenger services, however, freight has become a very important part in the profitability of an airlines (company reports and other industry sources).

In fact, airlines are extremely reliant on the freight to be forwarded to fill up the cargo holds on scheduled routes. The amount of cargo space available is finalised at the last moment when the final number of passengers on the plane is known, an hour before the departure. Estimates are made on maximum passenger capacity, and bookings.

Amongst the AEA members, Lufthansa, Air France, KLM and British Airways dominate the airfreight sector (AEA, 1998; IATA, 1997/98). The European Union hosts 35 specialised charter operators representing part of the low cost segment of the industry (air transport sources).
The charter sector does not really compete on scheduled routes with other airlines such as British Airways, KLM, British Midland, Go, Ryanair, Alitalia and Air France to name but a few. The main reason for the charter operators not being able to compete on the same routes as the other carriers is the difficulty of having access to computerised reservation systems, controlled by scheduled airlines (AEA, 1998). They lack, relatively speaking, a route structure (airline sources).

The 27 members of the Association of European Airlines employ 329,000 staff, fly to 150 countries worldwide, to 391 cities in Europe, to 190 cities beyond Europe, have 1,969 aircraft in service, carry 265 million passengers (1997/98), and 5 million tonnes of freight in (AEA, 1998). The 80 ERA member airlines operated over 1100 aircraft (small to medium capacity), and carried 60 million passengers as of 1998 (ERA, 1997/8). The intra-European scheduled market, even though smaller than the other two main regions (US and Asia), is over-populated with airlines (AEA, 1999).

Since the deregulation in 1993, 131 airlines have entered the market, of which 56% are no longer operating (IATA, 1997; AEA, 1998/99; and other sources). From the 124, which pre-dated the liberalisation, 55 have ceased to fly (see table 5).

**Table 5: Scheduled Passenger Airlines in the EU**

<table>
<thead>
<tr>
<th>SCHEDULED PASSENGER AIRLINES IN THE EU</th>
<th>Operating in 1/93</th>
<th>Start-up since 1/93</th>
<th>Operating in 1/93</th>
<th>Start-up since 1/93</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Still flying</td>
<td>Withdrawn</td>
<td>Still flying</td>
<td>Withdrawn</td>
</tr>
<tr>
<td>Austria</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Belgium</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Denmark</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Finland</td>
<td>9</td>
<td>15</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>France</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Germany</td>
<td>11</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Greece</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Ireland</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>69</strong></td>
<td><strong>55</strong></td>
<td><strong>57</strong></td>
<td><strong>74</strong></td>
</tr>
</tbody>
</table>

Source: OAG

Source: AEA industry report 1998
The major consequence of the European deregulation or liberalisation is the proliferation of low-cost/no-frill carriers, however, their impact so far remains marginal (IATA, 1998; AEA, 1998/99).

The main low-cost/no frill carriers that have substantial networks are Ryanair, Virgin Express, Easyjet, Debonair (which went bankrupt in the summer 1999), and Go and Buzz from the start of 2000 (see table 6). The offer of seats in comparison to AEA members is marginal. In fact, in the winter 1998/99 they offered 335,000 weekly seats, while AEA carriers offered 7 million seats (AEA, 1999). Furthermore, 45 per cent of their routes and operations are at secondary airports that do not attract the main carriers.

Table 6: Low fare carrier weekly seats

<table>
<thead>
<tr>
<th>No. seats (000)</th>
<th>LOW FARE CARRIER'S WEEKLY SEATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GO</td>
<td>300</td>
</tr>
<tr>
<td>Debonair</td>
<td>250</td>
</tr>
<tr>
<td>Easyjet</td>
<td>200</td>
</tr>
<tr>
<td>Virgin Express</td>
<td>150</td>
</tr>
<tr>
<td>(formerly Eurobelgian)</td>
<td>100</td>
</tr>
<tr>
<td>Ryanair</td>
<td>50</td>
</tr>
</tbody>
</table>


Source: AEA report, 1998

Most of the European country markets have been in a growth phase in recent years according to industry sources (AEA, 1998; ICAO, 1997). According to an AEA industry report in 1998, the annual average growth over the period 1994-97 was up to 12%, a level attained in some countries such as Belgium, Finland, and the Czech Republic.

According to the AEA industry report published in 1998, the annual growth in the largest markets in Europe varied among the four main countries i.e. The UK, France, Germany and Italy. The UK has had a modest 3% annual growth, whilst France in third place had 4%.
The other major markets are Italy and Germany who had 8% and 7% growth respectively.

1.5 Airline deregulation and Open Skies

The US airline deregulation in 1978 has been the main cause of the changes that have happened in the airline industry worldwide, particularly in Europe. However, these changes have not been without pain for the carriers and customers. In fact, the US airline deregulation saw a reduction in the number of airlines, reduction in service levels, phenomenal growth and profit losses (Thornton, 1997).

Almost 20 years after the USA deregulated air travel and “ushered” in a new era of cheaper flying (The Economist, 1997), Europe followed the same path. What happened in the USA since 1978, however, may never fully occur in Europe. Air fares quickly fell by a third in the USA and traffic more than doubled through the 1980s as new comers (low-cost carriers) such as American West and Southwest Airlines were offering cheap “point to point” flights, avoiding the main hubs used by the main carriers in the USA (The Economist, 1997).

As mentioned previously, it would be a mistake to think that all those changes have been perfect and have not affected the competition. On the contrary, 180 of the new carriers launched since 1978 (excepting Southwest and America West) have disappeared (The Economist, 1997; ATW, 1995). At the same time famous big airlines such as American Airlines, United Airlines and Delta have had to undergo massive restructuring in order to remain competitive and uphold or recoup market shares lost to their competitors.

Others carriers such as TWA before its demise and to some extent, Continental, have drifted in and out of bankruptcy “Chapter 11”.

36
In a recent study by American Express, it was shown that the big three US airlines (American Airlines, Delta, and United Airlines) have increased their market share from 30% in 1978 to more than 60% in 1990. Today, these three big airlines still fly unchallenged on more than half America’s routes (The Economist, 1997).

In Europe, the omens are not good for passengers looking for lower fares. Average fares for business and full economy tickets within the Continent have been rising, despite the fact that most of the liberalization rules have been in place since 1993 and, since 1997, the appearance of low cost and no-frills airlines has forced the main carriers to have a more flexible airfare ticket policy.

Since 1993 we have seen a dozen new airlines such as Debonair, Easy-Jet, Air One, Virgin Express (originally known as Virgin Europe) together with Ryanair founded in 1985 to name a few, but these operate mainly in niche markets and secondary airports such as Stansted, Luton, Bologna, Dusseldorg, Roissy, Nice etc. This is due to a shortage of slots at the main airports, and the pressure put upon governments by the main European carriers.

As has happened in the USA, the European market is mainly dominated variously by three to 5 airlines (British Airways, KLM, Lufthansa, SAS, Swissair). These carriers have ended up acquiring half or more of the intra-domestic and European routes. One barrier to an open price and route deregulation in Europe is the various bilateral deals governing long-haul flights to non-European destinations. This means that carriers such as British Airways, Virgin or Alitalia, cannot fly to Boston from Paris due to the bilateral agreement between the French and Americans or vice et versa from London to Boston, or Rome to Boston.

One of the major developments in the decade (10-15 years), following the deregulation of the world-wide industry (particularly in the North American and European market) is the development of hub and spoke networks.
Prior to liberalization, hubs and spoke were very limited and held by carriers who had a strong hold on airport slots at a particular airport e.g. American Airlines at JFK or British Airways at Heathrow. Hubs are used as transfer points for passengers traveling from one area to another one in the region surrounding the hub (industry sources). They are also a point to load passengers traveling from the hub area to another destination within the country or internationally.

The hubs are strategically located at airports of importance where huge potential passengers are situated such as American Airlines, Delta and United Airlines at JFK (New-York), LAX (Los Angeles), St-Louis; British Airways and Virgin Atlantic at LHR (London Heathrow); Lufthansa at Frankfurt; KLM at Schipol airport, Alitalia at FCO (Fiumicino airport) to name a few.

Airlines developed hub and spoke systems due to their inability to serve more than one market at once (ATA, 1997). With hubs at strategic airports, carriers can fly passengers from one point to different point and offer extra services such as connection to other destinations with the same carrier at the same airport (ATA, 1997; IATA, 1996; and other sources). This has made managers realize that they could increase their load efficiency and profitability by offering different destinations from the hubs and spokes using medium size or small aircraft to transport them (ATA, 1997). For example, at a hub, passengers can connect to dozens (sometimes hundreds) of flights to different cities, and airlines can offer several flights at different times of the day (ATA, 1997). In doing this, they can keep the passengers on their airlines, instead of giving them over to the competition.

However, according to the industry literature and reports, the hub system has its disadvantages. There is an increase of manpower such as baggage handing and ground handling. This means an increase in operating costs, though better efficiency in work distribution. Therefore, since 1993 in the North American market, which has the highest density in term of domestic market, the main airlines decided to reduce their hub and keep it to a minimum in the most important airports (as is now customary in Europe).
1.5.1 Objectives behind European Air Transport liberalisation

The EU is committed to liberalising all form of transport, including roads, railway, shipping, civil aviation, as they play a very important role in achieving the Single Market (1992-1993).

Their objectives are detailed in Articles 74-78 of the treaty of Rome, which underlines the importance in achieving greater European unity and accelerating economic growth.

The European commission has developed an air transport policy (extract from AEA white paper on Air Transport and internal market 13 June 1991) with which to meet these objectives, based on the following points (structure and paragraph taken from AEA white paper on Air Transport).

1. Air services well adapted to the needs of travellers and shippers at the lowest prices, consistent with the economically viable operation by efficient airlines.

2. A safe, efficient, competitive and economically viable European aviation industry, earning a return on investment sufficient to attract and remunerate the capital (equity and loan) necessary for renewal, expansion and competitiveness in the world markets.

3. An adequate self-financing infrastructure (airports and airways) capable of accommodating the natural growth in air traffic in a cost efficient way, without imposing inordinate delays, inconvenience or additional cost.

1.5.2 European Airline liberalisation or Open skies

The “Third Aviation” package directive has provided the definitive deregulation of air travel within the European Union by EU carriers. The main measures implemented between 1993-1997 are as follows (Mintel, 1997):
- From 1 January 1993, airlines from the European Union were allowed to set their own fares subject to safeguards
- Restrictions on international services within the European Union by European Union airlines were lifted.
- EU airlines were allowed to operate domestic services in any other member state provided they were an extension to an international service.
- In 1997 all other remaining restrictions were to be lifted.

The price and route deregulation is a very important part of the strategy airlines will undertake. However, it is important to know what is really the price and route deregulation and who will be the beneficiaries of it. As stated above, the final liberalisation of the European airline industry is based on the American one, which started at the end of 1970.

According to a deregulation deal agreed by the EU Transport ministers on the 22 June 1992, airlines will be free to set their own prices for flights within the Community and will be allowed to fly between the airports of any EU country (European Law of Free Trade). Furthermore, from 1997 EU airlines will be allowed to engage in cabotage, the right of any EU airline passengers between two domestic airports in another country.

The deregulation deal covers only air travel within the EU. Fares on International services will continue to be set by governments. The idea behind the transition is that it will avoid the sudden free for all and help the consolidation of airlines that followed deregulation in America. European airlines, many of them state owned, will then have more time to recover and restructure themselves (general industry sources).

Some examples of the possible use of deregulation are British Airways and its two subsidiaries TAT and DBA and franchisees, which could be flying from Paris-Frankfurt, Frankfurt-Rome, or Lufthansa jetting between London and Rome, Madrid, Warsaw, etc., with the help of its own subsidiaries Citylyner, CityLink, Condor.
No more requests for traffic rights in Europe will be required of the airline companies. The only problem, which could arise, concerns the fairness of slot (departure and arrival times for planes) distribution among the European airlines. In other words, if you do not have a good slot and even if you offer cheap airfare ticket to fill the plane, you can end up loosing money. Slot departure and arrival are of vital importance for the airlines in Europe owing to price and route deregulation.

Slots, as opposed to routes and prices will stay under the control of governments (IATA, 1995), which are only allowed to distribute and retrieve them if airports are too congestionated or companies like British Airways, Lufthansa, KLM put pressure on their governments not to give extra slots to direct competitors.

One way to avoid too much traffic congestion would be to sell the slot rights to the highest bidder (The Economist, 1993). This could work to the advantage of airlines such as British Airways (Heathrow), KLM (Amsterdam), Lufthansa (Frankfurt), and Air France (CDG).

The reason for such delay in total liberalisation of price and routes (since 1992) is the political intervention from governments, some of whom owned and still own carriers (IATA, 1995). In fact a total liberalisation of price and routes during the recession and Gulf War period would have brought more competition to the airlines owned by the different states (Air France, Alitalia, Iberia, TAP etc.), and the carriers would have been in even deeper trouble (restructuring, redundancy, possibility of strikes).

Furthermore, the governments would have had to invest more money to support carriers and help them compete with the wealthy airlines such as Swissair (at time of writing in 1999), KLM, SAS, and British Airways.

With all this increase in competition, fares are supposed to fall and new services flourish.
Unfortunately, this will not be the case for at least a few more years (The Economist, 1996) as most European air travellers will go on paying fares twice as high as those in America. For example, the full economy fare for London to Paris costs £200, whilst the US equivalent would be less than £50, calculated in miles from the same distance (AEA, 1993).

Meanwhile, business travellers are paying an average of 25% more than US counterparts (AEA figure 1993). One of the possible reasons for the delay in price reduction is the defacto disappearance of competition within the European market.

In fact, companies like British Airways, Lufthansa and, KLM have been "killing the market" by getting rid of regional carriers or potential competitors by buying them, or by making alliances with other airlines in Europe e.g. Lufthansa with SAS, Austrian Airlines and LOT). These airlines compete with their new owners and alliances partners on non-profitable or touristy routes against smaller carriers or other main airlines (Alitalia, Air France, Iberia, TAP, Olympic Airways), which have not at time of writing (end 1999) been able to restructure in time for the 1997 deregulation (mainly due to the government’s intervention, concern that it might lead to job cuts).

This does not mean that the prices will stay high. On the contrary, prices will be likely to go down due to the low maintenance and operation costs of the new airline subsidiaries, but not as low as they would be if the others big carriers were competing e.g. the likes of British Airways, Lufthansa, and KLM.

One foreseeable possibility is that the next couple years may see a form of price and route monopoly by British Airways, Lufthansa, Air France, KLM, and Alitalia, where prices will be cheaper than the present ones, but not as cheap as in the USA, especially economy fares. In fact, some of the European carriers may disappear from the European map altogether or merge with the big 5 to 6 European airlines e.g. Olympic Airways, TAP, Luxair, Malev, or LOT.
These companies could become regional carriers and feeders to the big six for their long haul routes. Price and route deregulation will offer more choice to passengers due to the increase in routes available, but it may cause a reduction of available carriers flying these new routes instead of opening the market (concentration).

1.6 Congestion and Over Capacity

The third deregulation package has brought a problem to the airline managers and analysts, which has been linked with the increase in airports, flight frequencies and air traffic congestion.

Congestion is now the airline industry’s biggest long-term challenge according to ATAG and industry sources. It causes delays and unreliability’s for passengers, reduced efficiency for airlines, and tour operators, and also causes a massive waste of materials and energy. For example, on routes between South East Asia and Europe, carriers have to operate at an inefficient cruising level, which means burning an extra 1.5 to 2.5 additional tones of fuel on each trip (ATAG, 1996).

Since the last crisis in the late 1980s and during the summer 1991, when the air traffic delays was at its peak, the Europe airline industry has been able to sustain its growth (industry source). However, since 1995 the problem has started to worsen again and in addition to this, airport capacity is shrinking. Things got even worse in 1997 when the airline market became deregulated in Europe (Open Skies, 1997, last deregulation package). Airlines are allowed to fly from one country to another country without government authorization.

According to the ATAG, the 12 months to December 1996, 15.4% of flights incurred an average ATC (air traffic control) delay of 16.7 minutes in Europe. Flight delay or departure delays are not only due to airport infrastructure inadequacies, but even more to the delays in air traffic control. In fact, air traffic delays account for a very high percentage for the delays in Europe (see table 7). In the USA, according to ATA, the average delay for domestic departures in 1995 was 7.2 minutes.
This means that during this period air traffic delay has produced a total delay of 738,000 hours.

**Table 7: Flights delayed in Europe**

<table>
<thead>
<tr>
<th>Year</th>
<th>% of flights delayed over 15 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>26.5</td>
</tr>
<tr>
<td>1987</td>
<td>26.9</td>
</tr>
<tr>
<td>1988</td>
<td>26.5</td>
</tr>
<tr>
<td>1989</td>
<td>25.6</td>
</tr>
<tr>
<td>1990</td>
<td>26.2</td>
</tr>
<tr>
<td>1991</td>
<td>26.5</td>
</tr>
<tr>
<td>1992</td>
<td>27.4</td>
</tr>
<tr>
<td>1993</td>
<td>27.8</td>
</tr>
<tr>
<td>1994</td>
<td>28.2</td>
</tr>
<tr>
<td>1995</td>
<td>28.6</td>
</tr>
<tr>
<td>1996</td>
<td>29.1</td>
</tr>
<tr>
<td>1997</td>
<td>29.5</td>
</tr>
<tr>
<td>1998</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Source: AEA report 1998

Air traffic control (Europe) is already saturated and over-stretched this is why flight delay cannot be avoided due to the "air traffic jam" and by operating at airport capacity. Airports by the end of the century will be saturated due to the increase in fleets and flight frequencies (AEA, 1998). This will have the effect of squeezing out potential new entrants, due to the lack of take off and landing space available (slots access). This crucial aspect of competitive strategy and advantage will increase the friction between airlines, concerning the landing and take-off rights at the airports e.g. British Airways and Virgin Atlantic at Heathrow airport or American Airlines and United Airlines at JFK airport. Some predict that by the end of the century global routes will be dominated by a small number of mega carriers; this seems likely to happen due to the changes occurring in the industry at the moment such as market globalisation, alliances and code sharing.
Pierre Jeanniot, Director-General of the International Air Transport Association stated:

Air Traffic delays and constraints arising from congestion are symptoms of governments not having got it right for infrastructure planning. Future economic growth will be jeopardised unless governments and other authorities invest substantially more in the infrastructure necessary to support the air transport industry.

In fact, by investing money in airport infrastructure and air traffic control the development of the world airline industry and the European in particular, could continue and to some extent, so could the work of small/medium companies serving the industry. Continued improvements to the aviation structure are of vital importance in order to keep up with the growth in air traffic and the safety of the airlines and passengers. The potential saving for airlines would be tremendous if traffic delay and airport congestion were overcome.

In a study commissioned for the European Civil Aviation Conference in 1995 it was shown that by improving the Air Traffic Management (Eurocontrol, Air Traffic Control) efficiency alone, could be as much as ECU 2.5 billion per year or about 5% of total airline costs (ATAG, 1996; and other industry sources). In the USA air traffic control delays are estimated to cost the carriers and their customers more than US$3 billion per year (ATAG, 1996; other industry sources). Therefore, governments must invest money in order to improve the infrastructure as described above and to give choice to customers in terms of airline competition. If the costs continue to increase small or medium carriers may disappear or be taken over by more profitable airlines.

1.7 Airline operating costs

Despite the fact that the world airline industry (and the European airline industry in particular) has managed a reversal of its profit declines since the beginning of the 1990s, the airlines are concerned that the reversal of fortune will be jeopardized by the increase in airport congestion and new tax burdens.
These are about to be legislated by governments, according to industry sources (at time of writing 1999). The airlines may not just be faced with new taxes, but also with possible new legislation on slot-allocation, ground handling, maintenance, cabin crew working hours and pilot flight time limits (ATAG, 1996/99; AEA, 1998/99).

Airline operating costs have always been and will always be the main talking point of the airlines. In fact airlines are constantly faced with operational problems that result from weather patterns, aircraft failure, airport delays, technology failure, and employees dissatisfaction, to name a few. To understand how the operating costs can affect the running of an airline, it is important to understand how major airlines are structured. Most of the main airlines have a line and staff organisation. Their function can be explained as follows (partially extracted from the ATA airline handbook, 1997):

**Line Personnel**

Line personnel are divided in three categories: engineering and maintenance, flight operations, and sales and marketing. These three categories form the core of an airline, and according to different source account for 85% of an airline's employees.

All three divisions include everyone who is directly involved in producing or selling an airline’s services; from the mechanics who maintain the planes, to the pilots who fly them and the cabin crew who serve passengers and perform various in-flight safety functions, not to mention the reservation personnel, ticketing and check-in agents, gate personnel, baggage handlers and security etc.

**Operations**

The responsibility of this division is to operate an airline’s fleet of aircraft safely and efficiently. Their responsibilities include the training of all-flying crew and pilots, and the procedures crews have to follow before, during and after a flight to ensure safety. This department is also responsible for the efficient scheduling of the flight and for meeting the goals of the marketing department.
This department also includes dispatchers whose job it is to clear flights for take off, following the double-checking of factors affecting the flight e.g. weather conditions, fuel requirements, weight distribution aboard the aircraft and flight routes.

Maintenance

According to industry source and ATA, maintenance accounts for approximately 10% of an airline’s employees and 10-15% of its operating expenses. The duty of maintenance is to maintain aircraft in perfect condition and ensure the safety and comfort for the passengers when flying. The importance of a well-maintained aircraft can be explained as “an aircraft costs the airlines money every minute of every day, but makes money only when it is flying with passengers and freight aboard”.

Sales and marketing

This department includes activity such as pricing, scheduling, advertising, ticket and cargo sales, reservations, customer service and food service (catering). All of these activities within the sales and marketing are important, but two are of vital importance for the airline. Pricing and scheduling can make or break an airline. Prices alter everyday due to the change in airfare tickets by competitors and in response to fluctuations in supply and demand. Schedules change less often than the price, but nowadays due to the liberalization of the markets worldwide, they change more regularly than they used to in the pre-deregulated industry (industry sources; ATA, 1997).

To advertise their fares and schedules, airlines use sophisticate computer reservation systems (CRS). These information systems are connected to travel agents’ computers, enabling them to keep track of the new fares and schedules available on their network. According to ATA 85% of all airline tickets issued in the North American market are sold by travel agents who use a similar terminal as the airlines to book and print tickets for travellers.
Staff Personnel

Staff personnel fall into seven broad categories, which is typical of major corporation. Finance, Personnel, Legal, Public Relations, Purchasing, Planning and Medical. Their main duties are to support the work of the line personnel (reservation, ticketing, check-in, operation's etc.), in order to help the airline to run efficiently and increase its profit.

Subcontractors

Most of the airlines are largely self-sufficient but in the last few years carriers have outsourced some of their activities or duties. For example, aircraft cleaning, fuelling, security, catering and some maintenance work are nowadays performed by external companies. This has enabled the airlines to cut cost and to save money on the extra staff to perform the job.

1.7.1 Break down of airline cost

According to industry reports such as the DOT, IATA, AEA and other sources, the airline costs are divided as follows:

Airport Taxes and Government taxes

The burden of taxes on the airline industry is growing every year and it does not seem to stop. This is due to the “creativity” of governments, who devise new ways of tapping the industry as a source of revenue (IATA, 1998).

IATA member airlines have paid US$ 7.3 million in airport landing and related charges and US$ 5.9 million in air navigation charges for their scheduled international operations in 1997 (IATA, 1996/7), an increase of US$800 million and US$ 700 million compared with 1996. Both taxes represent 9.6% of the airlines international operating cost (8.9% in 1996).
According to a report published by AEA, costs at and around airports amount to about 24% of the total costs of AEA airlines’ operations on European routes (cross-border and domestic services together). More than 7% of the carrier’s total expenses are for charges levied by airport for the use of the runways, terminals, aprons, and to some extent for air traffic control approach and departure (AEA, 1998/99).

Employees/ Staff

Labor is the largest outlay for an airline. Labor costs account for nearly 70% of AEA members’ total airline costs (see figure 6). 17% is spend on ground handling, 13.1% on crew (flight attendant and pilots) 16.9% ticketing & sales, 7.4% on passenger service and 5.6% on administration. The labour cost can vary from one continent to another but it is still the highest cost for an airline. The average AEA airline employee in 1996, according to the AEA report (1998) earn around $131,000 p.a. for a long-haul pilot, $109,000 p.a. for short to medium haul pilot and $43,000 p.a. for ground staff (see figure 7). Compared to Thai Airways and Japan Airlines, however, European salaries are not widely excessive.

Figure: 6 Airline costs

Source: AEA report, 1998
Figure 7: The average AEA airline employee 1996

The average AEA airline employee 1996

<table>
<thead>
<tr>
<th>Days per year</th>
<th>The long haul pilot</th>
<th>The short/med haul pilot</th>
<th>The avg. ground staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight duty/work</td>
<td>Eats 131,000 $/year</td>
<td>Eats 109,000 $/year</td>
<td>Eats 43,000 $/year</td>
</tr>
<tr>
<td>Gnd duty/training</td>
<td>Full pension at 59</td>
<td>Full pension at 59</td>
<td>Full pension at 64</td>
</tr>
<tr>
<td>Unused stand-by</td>
<td>116</td>
<td>143</td>
<td>103</td>
</tr>
<tr>
<td>Sick leave</td>
<td>84</td>
<td>129</td>
<td>32</td>
</tr>
<tr>
<td>Vacation</td>
<td>50</td>
<td>12</td>
<td>44</td>
</tr>
<tr>
<td>Days off</td>
<td>138</td>
<td>11</td>
<td>38</td>
</tr>
<tr>
<td>Days off en-route</td>
<td>116</td>
<td>11</td>
<td>38</td>
</tr>
</tbody>
</table>

Ground duty/training includes transition training and administrative & union pilots. Reporting airlines: El AF AZ OS BA AY KL LH SN SK & SR.

Source: AEA report, 1998

Fuel

In the past few years and still today (1999) the key to profitability for an airline is the ability to operate at higher load factors; however, fuels are an important factor. Fuel is the second biggest cost for an airline and accounts for 10 and 20% of total operating costs, depending on the international price of oil at any given time.

According to a report published by Boeing in 1998, “lower oil price was the biggest influence in airline profitability over the previous two years“ (See figure 8). The Asian economic crisis has had a very important impact on world oil demand. The demand faltered and the price of oil took a big dive, below $10 per barrel (the lowest since the 1973 oil increase by OPEC). Boeing estimated the potential saving from the decline of the oil price at almost $6 billion for the world airlines in 1997/8. The European airline industry estimated saving was around US$1 billion (see figure 9), which has effectively doubled the profit of AEA members (AEA, 1999).

This shows how important lower fuel prices can make as well as contributing to airline profits and cost efficient aircraft. However, the cost of fuel is not only an important part of airline costs, but one must also consider the cost of transporting fuel to the airports, and the taxes that are levitated on it e.g. fuel tax, environment tax, transport tax etc.
Figure 8: World Crude oil prices

Source: AEA report 1998

Figure 9: Jet Fuel Prices

Source: AEA report 1998

Promotion/ Sales/ Passenger Service

The costs for this part of an airline account for 18% of total operating costs and include mainly advertising, reservations and travel commission. Travel commissions have been one of the fastest rising airline costs since the deregulation of the industry, when they accounted for less than 5% in the North America and European market (ATA, 1997). Passenger services account for 9% and include in-flight service, food and flight attendant service (ATA, 1997).
Aircraft and Traffic Service

This section includes the cost of handling passengers, aircraft on the ground, airline gate agents, dispatcher, and baggage handlers. It accounts for 16% of the total operating cost of an airline (ATA, 1997; IATA, 1997; and other sources). Aircraft costs account for 11.6% of the total airline operating costs and maintenance around 9%. When comparing it with past figures, the aircraft costs have decreased due to the low maintenance on newer aircraft, which are used by most of the main airlines (new Airbus, Boeing with low maintenance costs) (ATA, 1997; IATA, 1997; Boeing, 1998).

Airport congestion and Air Traffic congestion

According to different industry sources, air traffic and airport congestion will have cost the industry (especially in Europe), an amazing amount of US$ 6 billion per year by the end of 2000. Compare this with the total $1.4 billion incurred before the deregulation of the industry. These costs involved the delay of landing and taking off, rebooking passengers or loss of passengers to a competitor, compensation offered to passengers such as business upgrades, first class, discounts on next purchases, hotels, catering, baggage handling and ground personnel etc.

To sum up, while looking at these operating costs, it is important to understand that costs can vary considerably. In fact, if the airport infrastructure is able to receive an airline, if the time spent on the ground is shortened, if air traffic control does not delay the processing of the plane, and if oil prices continue to fall, then even more savings can be made and operating costs will decrease. But at the time of writing (late 1999) this would seem to be an optimistic scenario.

The variation in operating costs can be seen as between long haul and short-haul routes according to the AEA (AEA, 1998). Airline operating costs clearly differ as between flights within Europe and international flights (see table 8).
In fact, the longer the journey length the lower the cost per unit, the cost per unit declines rapidly as the journey length increases (AEA, 1998). Many of the costs in operating a flight such as landing, take-off, climbing, descent, change of crew etc. are added just once e.g. take off from London, landing at JFK. Also, fuel economy is better on a long flight than on the short-haul (IATA, 1996/7/8; ATA, 1997; Boeing, 1998 and other industry sources).

Table 8: Cost distribution passengers services

<table>
<thead>
<tr>
<th>Service</th>
<th>Long-haul</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscellaneous</td>
<td>7.5</td>
<td>6.2</td>
</tr>
<tr>
<td>Enroute charges</td>
<td>4.6</td>
<td>5.5</td>
</tr>
<tr>
<td>Fuel</td>
<td>15.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Flight deck crew</td>
<td>15.1</td>
<td>13.0</td>
</tr>
<tr>
<td>Cabin crew/inflight service</td>
<td>16.4</td>
<td>7.3</td>
</tr>
<tr>
<td>Sales cost</td>
<td>17.7</td>
<td>16.7</td>
</tr>
<tr>
<td>Airport fees &amp; handling</td>
<td>11.7</td>
<td>22.9</td>
</tr>
<tr>
<td>Aircraft ownership &amp; maintenance</td>
<td>19.2</td>
<td>21.3</td>
</tr>
</tbody>
</table>

Source: AEA report 1998

1.8 Development of the world airline industry

The main characteristic of the industry’s development during the 1990s is the trend towards airline alliances and globalization.

While co-operation between airlines e.g. code-sharing, bring cost benefits, alliance activity is essentially market-driven (IATA, 1996; AEA, 1997; Boeing, 1998). The main features of alliance agreements are as follows (extract taken from the AEA report, 1998):

- Schedule co-ordination, providing passengers with a greater number of connection and reduced connection times
- Introduction of new services, increasing the variety of both direct and indirect services to passengers
• Discounted fares for connecting services operated by alliance partners, representing significant savings on conventional interline fares

• A number of seamless travel initiatives, such as reciprocal lounge access and co-coordinated baggage handling, designed to improve the quality of service on flights involving interconnections and

• Co-ordination of frequent flyer and corporate discount programs, offering passengers and corporate customers benefits on a wider range of flights.

As stated previously, the airline industry is a cross-border industry but individual companies, i.e. airlines, are heavily identified with their country of incorporation, which may in turn make mergers difficult.

So alliances offer the opportunity for airlines to combine their route networks, to operate in a larger range of markets than a single carrier could serve, and to save money on operating cost and infrastructure (general industry sources).

In other words, the billions of dollars of capital investment required and the high cost nature of the industry could be partly saved when expanding their route network, customer services and marketing campaign.

1.8.1 Alliances, Code sharing, Mergers

As noted above, strategic alliances and code sharing agreements have become a very important and sometimes vital competitive advantage to the Airlines Company. In fact, nowadays due to the high operating costs (labour cost, fleet maintenance, landing and take off fees, rent fees) and cheap fares offered to the customers, it is of real importance to share costs with another airline, which has profitable route networks and therefore, the potential to expand. To understand quite how important it is to the industry, one needs to understand the meaning of strategic alliances.
Strategic alliance will link specific facets of the business of two or more companies. At its core, this connection is a trading partnership, which enhances the effectiveness of the competitive strategies of the participating companies by providing for the mutually beneficial trade of technologies, skills, or products based upon them (strategic management literature).

An alliance may take a variety of forms, ranging from an arms length contact to a joint venture. As varied interpretations of the term exist, we can define a strategic alliance as “possessing simultaneously the following three necessary and sufficient characteristics” (Yoshino and Rangan, 1995):

- The two or more companies that unite to pursue a set of agreed goals remain subsequent to the formation of the alliance.
- The partner companies share the benefits of the alliance and control over the performance of assigned tasks—perhaps the most distinctive characteristic of alliances that makes them so difficult to manage.
- The partner companies contribute on a continuing basis in one or more key strategic areas, e.g. technology, products, and so forth.

To achieve global competitive advantage and to take advantage of one of the most profitable markets in the world, airlines must be globally co-operative. Therefore, the choice of the partner or partners in the alliance is very important. In fact, airlines are looking at partners who will help them to achieve their goal of globalization and increase their market shares.

1.8.2 Alliances

An alliance has to have an ingredient that the two sides cannot achieve unless they work together. In other industries, such as pharmaceutical or IT, it could be a patent or specialist knowledge held by one of the two parties.
According to an article written by Gudmundsson (1999) and other industry sources, the most important benefits of an airline alliance are identified as:

1. Code sharing, which improves computer reservation systems, priority listing and allows the virtual extension of a foreign carrier into a domestic market it cannot serve.

2. The amalgamation of frequent flyer mileage awards across the whole network of the alliance partners.

3. The traffic feed into the international gateway hubs of partners.

4. Schedule co-ordination as means to increase the perceived seamlessness of the code-shared service, reducing passenger waiting times at hubs and the likelihood of competitors having more convenient connections (slots).

5. Resource sharing through the reduction or elimination of duplication of sales offices and staff at major airports, as well as a joint marketing and sales programme.

6. Access to congested airports, by exchanging slots and terminal facilities.

7. Technical co-operation on the operational front such as maintenance, access to flight equipment in an emergency and the integration of information systems.

8. Access to an established system of travel agents commission overrides. Also, the effect that stems from the tendency of travel agents to book a well-known domestic brand, an obvious gain for a foreign airline.

All these are means of expanding more rapidly both internationally and domestically.
Alliances make it possible to enter new markets through distribution networks and the specific knowledge or presence of one or more of the partners has. In fact with the contribution of these partners, less time and effort has to be put into learning how to succeed in very different local environments, thus allowing for simultaneous and fast entry into multiple countries.

Alliances between airlines do not (only) involve investment in equity or stakes; this is due to the nature of the industry and to the nationality of the carriers. In fact in Europe governments do not authorize investment of more than 49% in an airline (e.g. SR Sabena) and in North America 25%. Therefore many alliances are limited to marketing agreements and technical co-operation i.e. sharing of employees, routes, costs, maintenance, planes and common advertisement campaigns. As said previously, alliances include joint sales and marketing, but also joint passenger and cargo flights, frequent flyer link program, catering, handling and management contracts.

A survey published in the Airline Business magazine (Gallacher and Odell 1994) found that over 280 alliances involving around 136 airlines had been established since January 1992.

In research undertaken by Gudmundsson (1998) on 34 large airlines that have 10 or more alliances partners, it was revealed that in the years between 1994 to 1998 these airlines had 491 alliances partners in total, of which 28% or 138 had been dropped in the period (European Business Journal, 1999).

The trend at the beginning was alliances between two airlines, but the emergence of several major groupings, or “galaxies” is becoming noticeable (Hanlon, 1996). This means that more than two airlines are involved in the alliances, or that the same airline has an alliance agreement with a second airline, which in turn one could be a direct competitor to the first alliance.
1.8.3 Code Sharing

Code Sharing is a commercial agreement between two airlines under which an airline operating service allows another airline to offer that service to the traveling public under its own flight designator code, even although it does not operate the service (Pat Hanlon, 1996). Code sharing agreements often include provisions for revenue or profit sharing, co-ordination of schedules and baggage handling, etc.

This practice has spread widely since deregulation in 1978 in the USA, and in Europe since the 1990s deregulation industry, since the world airline crisis in 1991 and since the increase in the network of routes and the development of the sophisticated computer reservation systems (CRS).

However, code-sharing agreements in Europe have not reached the same level of intensity as the USA in 1992. In the USA no fewer than 96% of passengers flew on code sharing airlines (Chambers, 1993), while the number in Europe was far less, yet things in Europe are changing in the same direction. Some example of code sharing agreement and flight designators can be found in the ABC Airways Guide.

The guide shows that all flight under BA codes BA3001, BA3276 are in fact flown by TAT (a British Airways subsidiary) and BA3300-3487 BY DBA (a British Airways subsidiary in Germany) and British Midland flies under AA, (American Airlines), while AZ (Alitalia), OA (Autrian Airline), and UA (United Airline) code share with Lufthansa.

1.8.4 Mergers

As suggested earlier, there is little chance of mergers among the main airlines due to the importance of the nationality of the airlines for the governments and customers alike. However, it may happen that regional European, North American, Asian, South American carriers are bought by the main players in their markets in order to incorporate them in their structure and use these carriers as feeders for their long-haul flights.
For example, British Airways with British Caledonian, DBA, and TAT; KLM with Air UK, formerly Swissair with Crossair and Sabena in Europe, while in the USA the list of mergers and acquisitions is more extensive e.g. Texas Air acquiring Continental in 1987 or TWA being acquired by its employees and creditors in 1993 to name a few. In some cases these alliances can be seen as simply precursors to outright mergers.

One example of this is the KLM and Northwest alliance, which uses both logos (KLM, NW), on their planes, hubs, staff uniforms and management. These two companies could merge, but due to the ownership laws in the industry imposed by the various governments, this is unlikely to happen in the near future.

### 1.8.5 Airline Alliance shape

As of late 1999 the airline alliance market is shaping in 5 main groups, which are the Star alliance, Oneworld, Qualiflyer (Swissair, Sabena), Atlantic Excellence (Air France and Delta), and finally Wings (KLM/AZ/NW/CO). These 5 groups together cover more than 51% of the world total route network available (see figure 10).

![Figure 10: Share of Total World RPKs in %](image)

Source: AEA report 1998; Airbus 1998
The two main global alliances are the Oneworld alliance which include airlines such as American Airline, British Airways, Quantas, Cathay Pacific, Iberia, US Airways, Canadian International Airlines, Japan Airline, Lan Chile, and AER Lingus and the Star Alliance with United Airlines, Lufthansa, Thai Airways, Scandinavian Airlines, Air Canada, Varig, South African Airline, Singapore Airline, All Nippon Airways and Air New Zealand (AEA, 1998; IATA, 1998/99; ATAG, 1999).

According to figures published in airline industry literature and particularly the AEA (1998), both groups together account for 37% (18% Oneworld, 19% Star alliance) of the world airline traffic as of 1998. In other words this means a total of US$ 109.8 (Oneworld US$ 58.6 and Star US$ 51.2) billion in sales and 406 million passengers (Oneworld 206.83, Star 200.5) carried.

This was followed by the Qualifyer alliance and Wing alliance with combined sales of US$ 67.1 billion and passengers carried of 355.55 millions (see table 9). However, since the time of writing (late 1999), Air France and Delta (since September 1999), which both used to belong to the Qualifier and KLM entity, set a fifth alliance.

Table 9: Size of the alliances in million passengers carried

![Diagram showing RPK's for Star Alliance, Oneworld, Qualifyer/At. Excellence, and KL-AZ NW-CO]  

Source: AEA report, 1998
It is evident from the data that the Oneworld and Star alliance are bigger in size than the other two (now three) in terms of both sales and passengers. According to AEA sources, twelve of the largest AEA airlines are aligned with one of the four groupings (see Figure 11). However, these alliances or groupings can significantly alter the map of the major alliances in Europe and worldwide, according to industry sources.

The consequence of the Air France-Delta alliance is not known yet, but it could trigger a re-shuffling of the airline landscape such as one of the main players in the other major alliances moving with the Atlantic Excellence.

Figure 11: Major Alliances among AEA Airlines

![Diagram showing major alliances among AEA airlines]

Source: AEA report 1998

As explained previously, emerging global alliances have made substantial strides towards combining marketing efforts, building global brands and opening up markets that would not be possible if alliances did not exist. Also, alliances have contributed to the management of slots for the alliance partners and provided access to congested airports in Europe such as Heathrow, Madrid, Frankfurt, Berlin, Fiumicino (Rome) and Schipol, to name a few, according to industry sources such as Air Transport World, IATA, AEA, ATAG, AEA, ICAO.
In North America, the corresponding airports would be JFK, Chicago O'Hare, Los Angeles, Boston, Montreal and Vancouver. In Australasia, Narita (Tokyo), Seoul, Sydney, Auckland, and Hong-Kong are the most obvious examples.

However, slot allocation can create a climate of anti-competition in the industry. If the British Airways-American Airlines-Iberia alliance had been accepted, it would have controlled 61% of the market-share out of Heathrow and a total of 28% of the European Union passenger traffic (IATA, 1997/8; ICAO, 1997/8; Boeing, 1998; other industry sources).

This is in comparison with the 18% market-share out of Heathrow and 17% overall European shares the main competitive alliance, the Star alliance, would have had. This shows the importance of the slot allocation at congested airports and the type of alliances carriers are looking to enter. Therefore, the need for regulations such as those in place by the EU to prevent anti-competitive practices is very important to ensure fair competition among carriers of the European Union.

Another advantage that airlines can derive from their alliances concerns the travel agents’ network. In fact, the network of travel agencies that is brought into the alliance by the carriers is an important marketing tool to create loyalty to a specific group of airlines (e.g. Oneworld alliance) according to industry sources such as the ATA (1999). Travel agents receive a commission from the airlines in order to be able to sell products belonging to them.

To ensure loyalty, an extra commission is given when a target fixed in advance by the carrier and the travel agents agreement is reached (Henderson, 1997). This holds, even if travel agents are supposed to stay independent in advising the customers. However, it is difficult for travel agencies or broker companies to stay impartial, while travel agencies operate on tight margins, which for some could be seen as the only way to survive.
Regulation in Europe and in the USA state that customers “must have a choice of airlines with which to fly” (ATA, 1997; IATA, 1997; Europa, 1998; AEA, 1997, Gudmundsson, 1999).

It becomes even more complicated, when those travel agents are connected to the Computer Reservation Systems (Amadeus, Gallileo, Sabre), which is used by most of the airlines worldwide and provided by them to the travel agents.

According to Gudmundsson (1999):

This create a competitive advantage, which is the multiple listing of a single flight, creating a crowding out effect on the CRS display that improves the chances of the flight being booked by the travel agents.

One example of multiple listing is a British Airways-American Airlines code-shared flight from London, through JFK, to Los Angeles:

Operated by BA from London to JFK and from JFK to LAX by AA. The first part of the flight is listed under the codes of BA from London to JFK and from JFK to LAX. Then the same two flight segments are listed under the codes of American Airlines (or American Airways). Then each of the two flights are listed separately as actual flights for interlining (both airline codes appear in the ticket), resulting in three sets of listing the same flight (Gudmundsson, 1999).

This leads to the possibility of a competitor flight on the same screen being dropped down to the second screen, according to Gudmundsson (1999). Therefore the avoidance of an unfair competitive advantage through the code-sharing agreement and the grouping of alliance partners may result in a lack of choice for the consumer. Some regulation has been introduced. This regulation limits code-shared flights to two listing in a CRS in Europe mainly, while in the USA the DOT has not yet decided in favour of a ruling for or against limitation of airline listings (Gudmundsson, 1999).
The emergence of alliances or global alliances within the airline industry have not yet changed the structure of the competitive environment. However, analysts believe that the so-called global airline such as British Airways/American Airlines (Oneworld), Lufthansa/United Airlines (Star Alliance), KLM/Northwest, or Air France/Delta will dominate the industry of tomorrow and become mega airlines. Some of these airlines would be based in Europe (4 or 5), North America (5 or 6) and in Asia (4 or 5); they would provide a strong feeder system to support a global route network.
CHAPTER II

2.0 RESOURCE BASED-VIEW AND COMPETITIVE ADVANTAGE

2.1 Overview

The present chapter is not a conventional literature review, though it does draw selectively on the strategy literature. Beginning by noting the lack of definitional consensus concerning strategy together with the variations in formulation and emphasis among leading writers on strategy, I will go on to focus on two paradigms, the market based view and the resource based view.

Strategic management is concerned with issues affecting the relationship between an organisation and its environment. The literature has focused in the last 20 to 30 years on planning, implementation, strategy formation, global strategy and understanding the sources that give firms a sustained competitive advantage over their rivals e.g. Porter, 1980, 1985; Rumelt, et al., 1991. Since 1980, this literature has been growing at an astonishing rate yet despite the large amount of research on these subjects there is, as yet, no single definition of these terms. In fact, according to the strategic management literature some elements of strategy have universal validity and can be applied to any institution. Other elements are heavily dependent on the nature of the firms involved, their constituencies, their structure, and their culture (De wit and Meyer, 1994). Also, the varieties of competitive environment and types of industry make it difficult to give a universal definition of the word strategy as it has been described in the strategic management literature (general sources on strategic management). As a result, a wide range of conceptual frameworks exists for the formulation and implementation of strategies.
The field of strategy has been in existence for a long time. In ancient Greek military circles, strategy was associated with moves that led to winning the war without necessarily winning each battle (James, 1985). According to researchers such as Andrews (1971), in the field of strategic management “strategy is a rational decision-making process by which the organisation’s resources are matched with opportunities arising from the competitive environment”.

In other words, it is a rational decision making process based on what a company can do (organisational strengths and weaknesses) and might do (environmental opportunities and threats). In an article published in the Management Decision journal (1995), different authors define some other meanings for strategy as follows:

- “Strategy is the skill of managing or planning”
- “Strategy is the direction and scope of an organisation over the long term. It ideally matches its resources to its changing environment, and in particular its markets, customers or clients, so as to meet Stakeholder expectation (Johnson and Scholes, 1993)
- “Strategy is the primary means of reaching the focal objective. The focal objectives are whatever objective is in mind at the moment. Strictly speaking, it is literally meaningless to talk about strategy without having an objective in mind. Viewed in this context strategy becomes an integral part of the ends-means hierarchy” (Thorelli, 1977).

Others, such as Aldrich (1979), and Porter (1980) state that the environment has a strong deterministic influence on the strategy making process in organisations (Feurer, Chaharbaghi, 1995). Porter in particular (1980, 1991) studied the issue of strategy in depth and gave a detailed analysis of the structure-conduct performance paradigm of industrial organisations. The essence of his model is the idea that an industry determines the state of competition within it and sets the context for companies to conduct their strategies (Feurer and Chabarchi, 1995).
Strategic management provides several frameworks and conceptual tools ranging from the industry analysis techniques popularised by Porter (1980) to the popular portfolio matrices, which were developed by a US management-consulting firm. Porter (1980, 1991) developed a model based on five forces (threat of new entrants, bargaining power of customers, bargaining power of suppliers, threat of substitute products or services, and strength of competitors) that have a strong effect on the profitability of individual corporate strategies and determine average profitability.

Other models, such as the 7S model developed by McKinsey and the Boston portfolio matrix were developed in order to determine the efficiency and effectiveness of firms in any given industry. These are some of the proponents of the market-based view that emphasised the choice of the right industry and most attractive competitive positions.

Industry analysis typically focuses on a company's external dimensions such as its markets, customers, and competitors (Pritsker, 1997). Some research on the industry structure paradigm has investigated the influence of economic structure on competition, the advantages of strategic industry control and the industry factors that influence profitability (Huff, 1982). Others have examined how external changes such as change in customer needs, new technology, government policy, and globalisation affects a company's strategy (Hambrick, 1983).

In other words, the emphasis is on the phenomena at the industry level. However, contemporary strategy research has seen a shift in interest from the structure-conduct-performance paradigm (e.g. Porter, 1980), which emerged from industrial economics, to theories, which focus on the internal resources of individual firms as a key determinant of competitive advantage (strategic management literature source).
These researchers e.g. Wernerfelt, 1984, 1991; Grant, 1991; Prahalad and Hamel, 1991; Amit and Schoemaker, 1993; Teece, Pisano and Shuen, 1997 (or proponents of the resource-based view) argue, “that it is not mainly the environment that influences a firm’s competitiveness but the resource of the organisation which forms the foundation of firm strategy” (Grant, 1991; Prahal and Hamel, 1990; Barney, 1991; Collis and Montgomery, 1990).

The interest in the link between resources and competitiveness has intensified since the late 1980s (strategic management literature sources). This is mainly due to the recent rise to prominence of the resource-based view (Wernerfelt, 1984; Barney, 1991; Conner, 1991; Grant, 1991; Peteraf, 1993), the aim of which is to “challenge the traditional approach or dominance of the industry organisation perspectives in strategy and industry analysis” (Caves, 1980; Porter, 1980, 1981).

The resource-based view gradually came to light after Hamel and Prahalad (1990) started to focus their research on the “core competence of a corporation” and Stalk and Evans (1992) work on “competing based on an enterprise’s capabilities” appeared and changed the outlook from outside to inside the company. These two approaches and the resource-based view model emphasise the importance of both “the skills and collective learning embedded in an organisation and the management ability and capability to marshal them”.

The different concepts or framework developed in the past 20 to 30 years have all had the same aim - to maximise the performance of an organisation by improving its position in relation to other firms in the same competitive environment (Rainer, Feuer, Chaharbaghi, 1995). In other words, the ultimate aim of a strategy is to ensure that a firm creates a competitive advantage and sustains it. However, it is becoming more difficult to compete in different competitive environments and sustain competitive strategy and advantage.
Furthermore, in today’s environment, where product life cycles are shortening, technologies are converting, and industry structures are becoming more diverse, there is a growing belief that the key focus for building competitiveness no longer begins with market selection and positioning, as was previously believed by proponents of the market based view (strategic management literature sources). According to the literature, the belief is that it is the development and nurturing of widely applicable distinctive internal capabilities that are relatively enduring (Rumelt et al., 1991). This is mainly due to the intensification of the competition, and globalisation of markets and industries.

In fact, the increasing unpredictability and transformations in competitive industry and the globalisation of markets require managers to formulate and implement efficient and effective strategies which allow them to respond to changes in order to become competitive and remain so. Examples of this include involvement in alliances or cooperative joint ventures with competitors, acquisitions, mergers, and development of new technologies, new working methods and the introduction of better internal structures in order to cope with industry changes.

Some of these changes have been seen in the last fifty years and are due to technological advances in transportation and communications, coupled with the steady erosion of governmentally imposed tariffs. Also, trade barriers have broadened the scope of most companies competitive environments (Pollock, 1999; Gorman, 1999). This is particularly true for service industries and two of them, the airline and the telecommunication industry, are at the forefront of these developments.

For example, the airline industry has evolved from being a regulated to a deregulated industry in the space of 30 years. Airlines have been forced to redesign their strategies, restructure their basic methods of operation and re-model their way of thinking in order to stay competitive and find new opportunities to increase their market share (industry sources).
This is because of a number of factors including, the formulation of "open skies" agreements, strategic alliances, the acquisition of stakes or shares in other airlines, code sharing agreements, and the appearance of low cost/no-frill airlines.

2.2 Sustaining Competitive Advantage and Core competence

In the field of strategic management, researchers have long understood that sustained competitive advantage depends upon the match between distinctive “internal (organisation) capabilities, and changing external (environmental) circumstances” (Andrew, 1971; Hofer and Schendel, 1978). In other words, they have recognised the importance of using the differences between firms and their distinctive competencies in order to gain a competitive advantage (Ansoff, 1965; Andrews, 1971; Hofer and Schendel, 1978; Amit and Schoemaker, 1993).

Other researchers such as Wernerfelt (1989), Prahalad and Hamel (1990) and Grant (1991), “have further evidence and interest in core skills and capabilities as a source of competitive advantage” (Amit and Schoemaker, 1993). Therefore the competitive challenge for managers in a highly volatile and competitive (dynamic) environment (e.g the airline industry), is to develop processes or tools for identifying the factors or resources, internal capabilities of a firm, and core competencies, that create sustainable competitive advantage.

Different factors have been identified as having an important impact on the ability of firms (Mata, Fuerst, William, Barney, 1995). These factors, according to Mata, Fuerst, William, and Barney (1995), include the relative cost position of a firm (Porter, 1980), the firm's ability to differentiate its products (Caves and Williamson, 1985; Porter, 1980) and the it's ability to co-operate in strategic alliances (Kogut, 1988). Also, some researchers have pointed out the role of Information technology in creating and sustaining competitive advantage (Barney, 1991; Clemens, 1986, 1991; Mata, Fuerst, William, Barney, 1995).
Knowing more than your competitor is not enough to guarantee a strategic advantage anymore, especially if you are unable to articulate explicitly the competitive stance within the firm. Therefore, the use of tools to analyse the external environment where a firm competes is no longer adequate in an ever-changing competitive environment.

The ability to develop tools to analyse and understand the internal environment and competencies may have to become a vital part of a firm's thinking in order to equip it to create and sustain competitive strategies and advantage. Even in the strategic management literature, it is generally agreed that internal organisational assessment is less developed theoretically and practically than other areas of situation analysis (Duncan, Ginter Swayne, 1998).

Barney (1995) has emphasised this statement by observing “the development of tools for analysing environmental opportunities and threats has proceeded much more rapidly than the development of tools for analysing a firm’s internal strength and weaknesses”. According to Ducan and Ginter and Swayne (1998), past research focused on looking predominantly at strategic issue diagnosis, scenarios, Porter’s industry attractiveness analysis, and other techniques that are mainly designed to examine the important strategic factors outside the organisation (Porter, 1980; Schwarz, 1991; Ducan and Ginter and Swayne, 1998).

Competitive advantage has been treated extensively in the management literature. Porter (1980,1981) thoroughly developed the concept of cost leadership and differentiation relative to competitors, as two important sources of competitive advantage. A low cost position enables a firm to use aggressive pricing and high sales volume, and differentiation in products creates brand loyalty and positive reputation, facilitating premium pricing according to the literature (Ducan and Ginter and Swayne, 1998). In other words, a higher profitability can only arise from “commanding a superior price than your rivals or by having lower costs”. Other very important vital factors to secure are “timing and commitment level” (Ducan and Ginter and Swayne, 1998).
According to Ghemaawat (1986) and Lieberman and Montgomery (1988) these two criteria are crucial in order to secure a competitive advantage. Being the first to enter a new market, not giving time to the competitors to react to the move, or offering new products and services in an already competitive market are also things likely to result in a firm achieving a competitive advantage.

These moves may entitle the firm which enters the market or introduces the products and services first to slow the access of new entrants, by setting standards that are hard to duplicate and to follow. (strategic management literature source).

Hamel and Prahalad (1989, 1994) have a different view on how competitive advantage should be emphasised. According to their thinking, “while competing for market position and looking at competitive advantage, a company should not look at the short-term in terms of profit, growth or competitive advantage. But they should look at the future position of the firm in the long term or look at sources of competitive advantage” (Hamel and Prahalad, 1994).

In order words, it means a firm should have “an explicit strategy planning and implementation, on how the company will compete when its current strategy is copied or becomes obsolete in an ever dynamic and changing environment” (Hamel and Prahalad, 1994). Over the years a number of sources for competitive advantage have been identified. These include organisation’s resources and capabilities, excellence in strategy implementation, quality, time, and innovation and creativity (Rainer, Feurer, Chaharbaghi, 1995). Also, the source of competitive advantage can be built up through cumulative firm experience and learning (Diericks and Cool, 1994; Reed and DeFillippi, 1990). Another connection has been well established in the literature, regarding the search for competitive advantage is the connection between a firm’s capabilities and competitive advantage. “Researchers such as Andrews (1971), Hofer and Schendel (1978), Show and Hrebinia (1980), noted the centrality of distinctive competencies to competitive advantage” (Rainer, Feurer, Chaharbaghi, 1995).
Prahalad and Hamel (1990), Hulrich and Lake (1991) have underlined the importance of identifying, managing and leveraging the concept of core competencies. Their thinking is that “focusing only on products and market business to create a sustainable competitive advantage and strategy, may not be sufficient anymore to ensure success, in a highly dynamic market” (Prahalad and Hamel, 1990; Hulrich and Lake, 1991).

This is especially true where the nature of competition and competitiveness is changing at an increasing rate (industry deregulation, new technologies, new entrants, new customer needs or products).

Proponents of the resource-based theory (i.e. Wernerfelt, 1984; Grant, 1991) take the thinking of focusing on core competence to another level. They argue that strategies should be based on what the organisation is best at (internal resources and capability) rather than concentrating only on the external environment. Others emphasise that “the source of competitive advantage can only be sustained if the capabilities creating competitive advantage are supported by resources that are not easily duplicated” (Pollock and Howard, 1999).

Those resources that are considered by the proponents of the resource-based view are “physical and financial assets, employees skills and organisational process”. When taking into account the perspective of the resource-based view, sustainable competitive advantage is, according to the literature, “the outcome of discretionary, rational managerial choices, selective resources accumulation and deployment, strategic industry factors and market imperfections” (Oliver, 1997).

Barney (1991) also suggests that sustained competitive advantages derive from the possession of resources that are valuable, rare, imperfectly imitable and imperfectly substitutable. In other words, resources that are not susceptible to duplication and not currently implemented by competitors.
Yeoh and Roth (1999) argue “that it is the firm’s unique capability to deploy or transform its resources that results in sustained competitive advantage” (Diericks and Cool, 1989; Leonard-Barton, 1992; Lado, Boyd, and Wright, 1992). Also, the sustainability of competitive advantage depends, at least in part, on the speed with which other firms can imitate the source of advantage (Yeoh and Roth, 1999).

Core competence theory is closely linked to the resource-based view. The resource-based view is that firms possess inimitable resources that can be the source of sustained competitive advantage. Similarly the core competence concept is based on the idea that firms possess certain skills or competencies that are difficult to imitate, and that can be a source of sustained competitive advantage. Both focus on the firm level, and managers identify sources of competitive advantage relative to competitors (Howard and Pollock, 1999).

According to Prahalad and Hamel (1991), “core competencies are the outcome of collective learning in the organisation, which is communicated across boundaries within the organisation to co-ordinate production, skill and integrate multiple technologies” (Pollock and Gorman, 1999). Furthermore, they suggest that successful firms are often those “that successfully identify their core competencies and can use them to obtain a sustainable competitive advantage that is hard to copy or imitate by their rivals”.

They have identified the following criteria for something to be considered a core competency within a company (Prahalad and Hamel, 1990):

- A core competence should provide potential access to a wide variety of markets
- It should make a significant contribution to the perceived customer benefits of the end product.
- It should be difficult to imitate
In other words, the firm possesses "certain resources, knowledge or sets of skills that are general enough to be applied in variety of settings, resulting in a clearly defined benefit to the consumer, that is difficult, if not impossible to replicate" (Prahalad and Hamel, 1990). When core competencies are identified and developed over time, they continue to grow rather than diminish with use and time (Prahalad and Hamel, 1990).

In fact, competencies are enhanced as they are applied and shared. This is in contrast with physical assets, which deteriorate over time (Prahalad and Hamel, 1990). An example of a core competency may be a firm's reputation and know-how.

Companies such as Virgin, Microsoft, British Airways, Glaxowellcome and IBM to name a few, use their reputation or brand name as an important resource that can lead to competitive advantage in markets where the product, i.e. the service being provided is relatively undifferentiated. However, "competencies need to be improved, developed and protected, as well as used in order to avoid this knowledge being lost or being imitated by a competitor" (Prahalad and Hamel, 1991).

According to Prahalad and Hamel (1991), to avoid having a core competence being imitated or copied requires a well-organised and quite complex harmonisation of individual technologies, services and production skills. This means that even if a competitor succeeded in copying part of your technology, including some of your core competence, it will find it very hard to replicate or imitate the whole. This is due to the past background (history), know-how and set of internal patterns that sustain such technology (Prahalad and Hamel, 1991).

As Prahalad and Hamel (1991) put it, "competencies are the glue that binds existing businesses. They are also the engine for new business development". In other words, it is the resources and competencies of a firm in an industry that may influence the market and not, as is suggested by some (e.g. market based view proponents), solely the attractiveness of the market.
2.3 Overview of the Market-based view and Resource-based view concept

2.3.1 Industrial organisation (Market Based-view)

According to proponents of the Industrial Organisation (or Market-Based View theory), the external environment plays a critical role in shaping the destinies of entire industries as well as those individual businesses. In fact, according to the strategic management literature, the main proponent on industry effects on strategies and performance is the industrial organisation.

The industrial organisation perspective (Bartlett and Goshal, 1991; Collis, 1994) has dominated the literature on global strategy. The Industrial organisation view, places primary emphasis on the external analysis of global competition, as best explained by Porter's (1980) "five-force” framework of industry analysis (Zou and Cavusgil, 1996). In other words, it is the external global market forces that impose selective pressures on how managers should run firms. Global strategy is dictated by market imperatives, and competitive advantage is derived from implementing a strategy, which corresponds to those market imperatives (Collis, 1998).

Different schools of thought within the Industrial organisation have underlined the market structure as the “principal explanation for emergence of common patterns of behaviours and similar performance outcomes for firms in the same industry” (Mauri and Michaels, 1998). However, two schools, the traditional (Bain and Mason) and non-traditional (the Schumpeterian and Chicago school) as described by the literature, differ in their approach regarding the dynamics of industry structure e.g. Mauri and Michaels, (1998).

The “traditional school” view the market structure as exogenous and stable (Bain, 1972; Caves, 1980; Porter, 1981), while the “non-traditional school” (Schumpeterian and Chicago schools) view market structure as dynamic and in constant evolution.
Also, according to the strategic management literature and Mauri and Michaels (1998), the Schumpeterian School focuses on revolutionary innovations that make rivals positions obsolete and that change industry structure. On the other hand, the Chicago school, whose similarity with the Schumpeterian thinking is apparent (Stigler, 1968; Demsetz, 1973; Mauri and Michaels 1998), “believes in the convergence of competitive pattern over the long term, when the less successful firms imitate the strategies of more successful ones” (Demsetz, 1973; Mauri and Michaels 1998).

Even though some of the schools of thought have different views, they both treat the industry as the unit of analysis, virtually assuming that firms are homogeneous (Mauri and Michaels, 1998). This is in sharp contrast with the proponents of the resource-based view. In fact, the resource-based view suggests that it is a firm’s specific attributes that drive both strategies and performance outcome. Also, it suggests that the unit of analysis is not only or mainly the external environment where a firm competes (industry) but the unique resources, capabilities and the distinctive process, which drive heterogeneity among firms. Therefore, the possibility of having successful strategies and the mechanical process (decision and action process) being copied or imitated can be prevented and this in turn can create sustainable competitive advantage (e.g. Lippman and Rumelt, 1982).

The industrial organisation literature also argues that strategy and performance are primarily defined by the industry, and are therefore sustained through entry barriers (Mauri and Michaels, 1998). As stated previously and according to the management literature e.g. Amit and Schoemaker, (1993), “industry analysis, seem to excel in assessing how firms in various industries obtain supra natural return”. They do this by focusing mainly on the external competitive forces and barriers that succeed in different product and market segments (as stated in the Industrial Organisation literature). Therefore the importance of “extracting or deriving from the analysis a set of strategic industry factors is essential” (Amit and Schoemaker, 1993).
However, according to Amit and Schoemaker (1993), this analysis is incomplete because "It treats the firm largely as a black box i.e. a faceless, unitary actor, while de-emphasising the role of managerial discretion".

The result of this is the sharing of competitive characteristics in the same industry. Therefore, firms in the same industry can successfully copy other firms who have developed resources that create competitive advantage and strategies (Mauri and Michaels, 1998). In doing this, companies in the same industry can reduce the competitive level that existed between them. According to the literature, "the result of such processes is that the pattern of competition can become a common industry characteristic over a certain time" (Mauri and Michaels, 1998).

Previous researchers have studied the convergent pattern for core strategies in technological and marketing differentiation according to Mauri and Michaels (1998). In their paper Mauri and Michaels (1998), mention that "in technology development, firms share several characteristics of the industry such as direct competitors and similar technological opportunities for innovation (Klevorich et al., 1995; Cohen and Klepper, 1992), use a common protection mechanism for profiting from their technological investments (Levin et al., 1987) and share innovative conditions derived from the underlying technology life cycle" (Utterback and Abernatly, 1975; Mauri and Michaels, 1998).

Strategy literature based on the Industrial Organisation paradigm is consistent with the structure of competition among firms, which compete, not on price, but on the way the product is presented or promoted. In fact, the industry analysis framework (Porter, 1980; Schmalensee, 1985) focuses on product markets and according to the literature on the Industrial Organisation view the source of profitability is "the characteristic of the industry as well as the firm's position within the industry" (Amit and Schoemaker, 1993).
Therefore, for firms to be successful, they must develop “key success factors” (Mauri and Michaels, 1998) that are “stable and externally determined by the industry environment where the firm competes” (Vasconcellos and Hanbrick, 1989; Mauri and Michaels, 1998). By doing this, firms in industry converge toward “comparative parity”, in order to enhance their chances of survival (Barney, 1991; Mauri and Michaels, 1998).

This is in sharp contrast with resource thinking which views the importance of a firm’s resources and capabilities as a determinant for its source of profitability. Furthermore, its chances of survival are not only due to the status quo of the market (not competition or comparative parity), but also due to the ability to make use of the internal resources and capabilities to create and sustain competitive advantages that are hard to imitate or copy.

As explained above, the industrial organisation approach has helped the understanding of the external market and the industry where firms compete. In addition to this, industrial organisation economics often looks outside the firm to explain sustained superior performance by examining firstly, “various market structures, government policies and new or old regulation setting”, and second “collusive relationship or substitute technologies” (Amit and Schoemaker, 1993). In other words, the industrial organisation approach has been primarily concerned with the similarities amongst firms; while, the resource-based approach has focused on the differences among firms competing in the same industry as the basis to develop sustained competitive advantage (Wernerfelt, 1995). Furthermore, this approach has not looked at the internal resources and capabilities characteristic of a firm (Bartlett and Ghoshal, 1991).
2.3.2 Resource based-view

As expressed in the first part of this chapter, researchers in the field of strategic management have long understood that competitive advantage depends upon the match between distinctive internal capabilities and changing external environmental circumstances (Andrews, 1971; Chandler, 1962; Hofer and Schendel, 1978; Penrose, 1959).

However, it is only recently (last 10-15 years) that a theory known as the resource-based view of the firm, has emerged, expressing the relationship between a firm’s resources capabilities and its competitive advantage (Barney, 1991; Conner, 1991). The resource-based view argues that “the key to sustained competitive advantage are those factors available for use in producing goods and services that are valuable and costly to copy” (Peteraf, 1993).

The resource-based view of the firm was first developed by Wernerfelt in 1984 based on Penrose’s seminal work (1959). Due to a lack of responses to his finding, the resource-based view of the firm concept remained partially unused for a decade. However, due to the increasing dissatisfaction with the “Porterian focus on industry structure” (Pisano, Teece, Shuen, 1997), the initial work of Wernerfelt came to the fore. Therefore, the resource-based view grew out of frustration with the structure-conduct-performance paradigm of the industrial organisation view of the firm (Bain, 1959; Porter, 1980).

Following the dissatisfaction with the focus on industry structure e.g. Porter, (1980), empirical research was undertaken (Teece, Pisano, Shuen, 1997). The result of this empirical research, which was examining performance, was that differences were found, not only “between firms in the same industry (Cubbin, 1988; Hansen and Wernerfelt, 1989; Pisano, Teece, Shuen, 1997), but also within the narrower confines of strategic groups within industries”( Lewis and Thomas, 1990; Pisano, Teece and Shuen, 1997). One such programme of empirical research was undertaken by Cool and Schenden in 1988.
They reported significant and systematic performance differences among firms belonging to the same strategic group in the American pharmaceutical industry (Amit and Schoemaker, 1993). Another scholar found that business units differ far more within, than across, industries (Rumelt, 1991). Therefore, researchers did not agree with the concept that a firm's success was wholly determined by its external environment. They found the concept to be unrealistically limited and turned to the seminal work of Penrose (1959).

There has been an active debate among strategic management scholars concerning the relative importance of the internal firm capabilities and its resource (Galbraith and Kazenjiian, 1986; Prahalad and Hamel, 1990) versus environmental factors (Pfeffer and Salancik 1978; Porter 1980, 1990) in sustaining competitive advantage. However, evidence in the literature suggests that both internal and external factors are crucial to competitive success (Fiegenbaum, Hart and Schendel 1995; Hansen and Wernerfelt, 1982).

Also, the management literature in the last decade (since 1985) has underlined examples and cases of firms with "particular skills and capabilities" capable of obtaining higher returns (supra natural rent) than their rivals (Ghemawat, 1986; Grant, 1991; Stalk, Evans and Schulman, 1992; Williams, 1992; Pisano, Teece and Shuen, 1997). Therefore, the resource-based theory has attempted to integrate both the internal and external perspectives (Barney, 1991; Wernerfelt, 1984).

The resource-based view traces its roots back to the Penrose classic "The theory of the growth of the firm". The basic assumption of the resource-based view is that a company can use "superior organisational resources and capability to modify the industry's structure" or change the competitive game (Barney, 1991; Prahalad and Hamel, 1990).
In other words, the correct use of internal resources and their capabilities or the synergy of resources i.e. alliances may help to modify the industry’s structure to its own advantage and outperform the competition (or create sustainable competitive advantage).


Factor market imperfections and highlights the heterogeneity of firms, their varying degrees of specialisation and the limited transferability of corporate resources (Amit and Schoemaker 1993).

Others have defined the resource-based view of the firm as follows:

The resource-based view is a conceptual framework for understanding firm level growth using resources as the basic building blocks. These resources may be financial, human, intangible, physical, organisational or technological (Pollock and Gorman, 1999).

According to Wernerfelt (1984), Diericks and Cool (1989), and Prahalad and Hamel (1990) and based on Penrose’s (1959) seminal work, the success of a firm is not only determined by the external environment as explained above, but also by the internal competencies of the firm. According to them, the key to competitive advantage is rooted inside a firm, in assets that are valuable and inimitable (strategic management literature source).

Furthermore, if as well as using the firm’s internal resources (or competencies) or capabilities the management of the same firm can also marshal these assets, it will produce superior performance, which in turn will determine competitive advantage.
In other words and according to Amit and Schoemaker (1993), “the challenge for managers is to identify, develop, protect and deploy resources and capabilities in a way that provides the firms with a sustainable competitive advantage and thereby a superior return on capital” (Amit and Schoemaker, 1993).

However, it seems that the proponents of the resource-based view have not really taken into account, or have left vague, the relationship with the external environment according to the strategic management literature.

To remedy this omission, Barney’s (1986) work has addressed this issue by “demonstrating the conditions under which a firm’s resource becomes valuable by bringing the external environment into the resource base concept” (Barney, 1986). However, while developing the notion of the external market, he realised that contrary to the market-based or industrial organisation view, “external resource analysis cannot only lead to valuable resource on its own”. But by developing the internal competencies and applying them to an appropriate external environment, a firm can develop viable strategy (Barney, 1989).

The term resource is used by the proponents of the resource-based view in a very broad sense. Barney (1991) defined internal organisational resources as all “assets, capabilities, organisational processes, business attributes, information, and knowledge that are controlled by a firm and enable the firm to implement strategies” which in turn should improve its efficiency and effectiveness.
Barney (1991), went further in his thinking. According to him:

The resource-based view is based on two fundamental assumptions in analysing sources of competitive advantage. First, firms within an industry or strategic group may be heterogeneous with respect to the strategic resources they control. Second, since these resources may not be perfectly mobile across firms, heterogeneity can be long standing. In the resource-based, competitive advantage is said to reside in the inherent heterogeneity of the immobile strategic resources which business controls.

As stated above the resource-based theory is based on two underlying assertions, as developed in the strategic management literature (Barney, 1986, 1991; Rumelt, 1984, Wernerfelt, 1984). The two assertions according to the literature are that the “resources and capabilities possessed by competing firms may differ (resource heterogeneity) and that these differences may be long lasting (resource immobility)” (Mata, Fuerst, William, Barney, 1995).

Resources are described in the literature as “input factors controlled and used by firms to develop and implement their strategies, while capabilities are the abilities to co-ordinate and deploy resources to perform tasks” (Amit and Schoemaker, 1993). The two concepts of resource mentioned above (heterogeneity and immobility), which are applied in the resource-based view, are linked, according to Barney (1991), to create and sustain competitive advantage as follows:

If a firm possesses a resource or capability that is possessed by numerous other competing firms, that resource or capability cannot be a source of competitive advantage.
For example, if firms in an industry such as the airline industry operate the same computer reservation systems with the same data on customers, this would not be a source of competitive advantage for those airlines competing on the same routes and markets.

Firm or resource heterogeneity is defined in the literature as “relatively durable differences in strategy and structure across firms in the same industry that tend to produce economic rents (supra natural profit) and sustainable competitive advantage” (Oliver, 1997). However, how those resources are translated and transform (process) may give a source of competitive advantage.

For example, how the data is utilised by airlines (e.g. how many times such and such travellers fly with them and why they fly with them etc) and the process behind the utilisation of the data may become a source of competitive advantage. According to the literature, “Common sources do not meet the resource heterogeneity requirement, and thus are, at best, sources of competitive parity” (Mata, Fuerst, William, Barney, 1995).

“On the other hand, if a company in an industry possesses a resource or capability that is not currently used by competing firms, the condition of resource heterogeneity is met, and a firm may obtain a temporary competitive advantage” (Mata, Fuerst, William, Barney, 1995).

In fact, as is acknowledged in the strategic management literature that it is extremely difficult to keep a competitive advantage for a long period of time, due to the change in competitive environment and the power (financial and know-how) of competitors. The second resource-based condition as stated by Barney (1991, 1995) is based on the resource immobility.
This resource becomes an important part when a firm tries to understand which resources or capabilities will be sources of competitive advantage (Mata, Fuerst, William, Barney, 1995):

A resource is mobile if a firm without a resource or capability face no cost disadvantage in developing, acquiring, and using that resource compared to firms that already possess and use it (Barney, 1991, 1995). This mobile resource may become a temporary competitive advantage.

However, this resource can become a sustainable competitive advantage, when a firm in the same industry without the same capability (process to transform the resources) faces a cost disadvantage, while trying to compete on the same market with the same resources and capabilities (strategic management literature source). This is due to the difficulties faced by firms in the same industry (imperfect market or competition) to obtain and develop those same resources, which in turn could help them to create efficient and sustainable competitive advantage (Mata, Fuerst, William, Barney, 1995). This is called “the isolating mechanism” by the proponents of the resource-based theory. Isolating mechanisms are features of resources that prevent other firms from obtaining and replicating them (Mahoney and Pandian, 1992; Rumelt, 1984; Oliver, 1997).

Some of those features are skills, knowledge, and capabilities that are “tacit, unique, invisible, complex or path dependent” (Barney, 1991; Diericks and Cool, 1989; Lippman and Rumelt, 1982; Peteraf, 1993; Reed and DeFillippi, 1990). The result of this, according to the literature, is that in cases of imperfect market or competition they create “barriers to resource mobility and an unequal distribution of resources across competing firms” (Barney, 1986; Diericks and Cool, 1989).

On the other hand, defining which resources are likely to be a potentially valuable source of competitive advantage may be a difficult or long task, as noted by different researchers (Barney, 1991; Grant, 1991; Collis and Montgomery, 1995).
In fact, according to proponents of the resource-based view, not all types of resource possess the potential to be a source of competitive advantage.

In the literature, the decisions regarding the selection and accumulation of resources are characterised as “economically rational within the constraints of limited information, cognitive biases and causal ambiguity” (Amit and Schoemaker, 1993; Ginsberg, 1994; Lippman and Rumelt, 1982; Peteraf, 1993; Reed and DeFillippi, 1990).

Barney (1991) for example, suggests that for these resources to be valuable sources and to create and sustain competitive advantages, they must be “valuable, rare, inimitable, and non-substitutable”, which lead to permanent or lasting “supernormal profit and firm variation” (Oliver, 1997). Others such as Grant (1991) suggest that the levels of "durability, transparency, transferability and replicability" are important determinants in creating sources of competitive advantage.

Also, Collis and Montgomery (1995) argue that to be valuable resources, they must meet five tests. These are “inimitability, durability, appropriability, substitutability and competitive superiority” (Pisano, Teece and Shuen, 1997). Other scholars go even further in their description of valuable resources according to the proponent literature on the resource-based view.

They include “complimentarity, scarcity, inimitability, limited substitutability, appropriability, durability and overlap with strategic industry factor” (Amit and Schoemarker, 1993).

As can be seen in the previous description of valuable resources, there is repetition of the inimitability, replicability, appropriability, substitutability, scarcity or rarity. In fact, these factors are some of the central elements of the resource-based view according to the literature. However, according to proponents of the resource-based view, inimitability seems to be the most important element of the theory.
The inimitability factor has been investigated by scholars, and according to the literature they have come up with "classified different explanations of the notion" (Teece, Pisano and Shuen, 1997).

These classified explanations focus on the asset stock accumulation (Diericks and Cool, 1989), capability gap (Coyre, 1986), capability differential (Hall, 1992, 1993), uncertainty and inimitability (Lippman and Rumelt, 1982) and causal ambiguity (Reed and DeFillippi, 1990) to name but a few.

All these classified explanations are there to explain the effect of the inimitability and barrier to duplication on both firm strategy and on the competitors. In fact, as explained above, a competitor cannot copy or imitate a strategy if he is unable to identify or understand (isolating mechanism) which resource or set of resources and capabilities are the reason behind a firm's success. According to the literature, to know the reasons behind a firm's success is called the concept of causal ambiguity (Reed and DeFillippi, 1990) or uncertain inimitability (Lippman and Rumelt, 1982). According to Lippman and Rumelt (1982) "uncertainty regarding which factors are responsible for superior performance explains efficiency differences between both incumbents and potential new entrants despite free entrants" (Teece, Pisano and Shuen, 1997).

On the other hand, Reed and DeFillippi (1990) work (according to the literature) has looked at the characteristics of resources, which may prevent their imitation by competitors. They came up with three characteristics of resources: "tacitness, complexity and specificity". These three characteristics are described as follows by the strategic management literature and in a paper written by Teece, Pisano and Shuen (1997): Tacitness refers to "the inability for a competitor to identify or codify a pattern of activities". In other words, it is the inability for a competitor to understand the decisional process behind a decision taken. Tacitness is also a "characteristic of skill-based activities" (Polany, 1967). "Skilled activities are based on learning by doing that is accumulated through experience and refined by practice" (Reed and DeFillippi, 1990).
Complexity is the result from the inter-connectedness of asset stocks (Diericks and Cools, 1989), the social relationship within the firm (Barney, 1991) and the co-specialised assets (Teece, 1986), that is assets which must be use in connection with one another”.

In other words, it is the organisation routines (as in all, not one person in particular), the company structure and the knowledge that has been acquired through, for example, in-house training, team-based experience, past experience, and internal structure that makes the resource important and immobile (e.g. Reed and DeFillippi, 1990). Also, according to Nelson and Winter (1982) and Teece, Pisano and Shuen (1997), it suggests “that few individuals, if any, have sufficient breath and depth of knowledge to grasp the overall performance package”. In fact, it is not the knowledge of one person that can lead to imitation, (e.g. in the case of one of the firm’s employees such as top, or middle management being recruited by a competitor) but the overall organisation and the process behind the deployment of the resources.

Specificity is “the idea that transactions within the firm and its external constituents are distinctive to individual firms” (Williamson, 1985). Such transactions “have a time dimension (Diericks and Cool, 1989) and this path dependence of an individual firm’s activities is exceedingly difficult to identify and replicate” (Barney, 1991; Collis and Montgomery, 1995; Diericks and Collis, 1989; Teece, Pisano and Shuen, 1997.

To summarise, in order to have resources that are inimitable or hard to copy, the relationship with the competitive advantage that is retrieved from the resources must be poorly understood or possess some or most of the characteristics developed above. These are tacitness, complexity, specificity, replicability or inimitability, appropriability, substitutability, scarcity or rarity.

Following this statement, the principal forces of corporate strategy and performance are internal to the business, and this is a view that is in sharp contrast to the market-based view.
Barney (1991) went even further in his classification by putting them into three categories: physical capital, human capital, and organisation capital (as mentioned at the beginning of the chapter). Grant (1991), used the terms tangible and intangible and personnel based to classify these internal resources. Tangible resources according to Grant (1991) include financial reserves such as debtors, bank deposits, capital and physical resources such as plant, equipment, and stocks of raw material.

However, all these assets are “transparent and easy to imitate and duplicate” according to various scholars e.g. Grant, (1991); Barney, (1991); Pisano, Teece and Shuen, (1997). The exceptions are for some tangible assets such as plant e.g. airport terminal for airlines, headquarters, land and rights to do business e.g. slot rights, route rights for airlines, that may become immobile assets.

Intangible resources include reputation, brand name, intellectual property such as patents or trademark e.g. Coke, technology and human resources e.g. the training and expertise of employees, their commitment and loyalty and culture of the firm (Grant, 1991). Also, the company networks and database.

These tangible resources according to Wernerfelt (1989) have unlimited capacity and firms can exploit their value” by using them in house or renting them”. According to Diericks and Cool (1989) brand and company reputation, network and database are examples of assets stocks that are hard to copy or imitate by competitors. This is due to the complexity and specificity of their accumulation, and in turn may prevent or delay imitability and substitutability in the short run (Diericks and Cool, 1989; Teece, Pisano and Shuen, 1997).

Scholars such as Barney (1991), Grant, (1991), Wernerfelt (1989, 1989), Diericks and Cool (1989) and Amit and Schoemaker (1993) suggest that firms should not value all resources within a firm equally but select the appropriate one which would help them to create the value creating strategy in order to create and sustain competitive advantage.
In fact, a firm might develop a competence that is of little competitive value or currently implemented by competitors. Therefore, the way a firm (managers) uses the concept of the resource-based view to identify which resources and competencies are of competitive value and create competitive advantage and sustain it is of great importance.

The challenge for managers is to identify and develop sources of competitive advantage for a particular industry setting. They should do this through the protection and deployment (isolating mechanism) of resources and capabilities while implementing a set of strategies. This may provide the firm with a sustainable competitive advantage that is hard to duplicate and imitate and in turn reward the firm with a superior return on capital.

According to Amit and Schoemaker (1993):

Given the competitive and changing context in which managers must decide which resource and capability to develop as their firm's basis for competition, it is doubtful that decisions about which source of competitive advantage to develop or deploy can be optimally deduced from a general normative theory.

This is becoming even more important as more firms go into strategic alliances. In fact, a firm's heterogeneity is reduced when it is able to overcome barriers to resource mobility and gain access to specialised, tacit capabilities (Reed and DeFillippi, 1990).

According to the literature, strategic alliances allow firms to obtain assets (resources), capabilities or even competencies that would not be made available in competitive factor markets, due to the isolating mechanism set by firms competing in the same market. An example of this is marketing alliances or joint ventures among the telecommunication and airline industry firms. These are entered into in order to gain access to complex sets of mechanisms that make a firm successful or for technological product development.
Also for the acquisition of intangible assets such as the brand name, reputation, technology and human resources to name a few, which would in turn enhance the reputation of a firm in the local market and in some cases increase its market share e.g. airline industry, telecommunication industry.

This research will attempt to focus on how resources are developed, managed and diffused in order to create sustainable and competitive advantage in the context of the strategic alliance. Not only through the rarity, uniqueness, or non-substitutability of resources but also through the management of their strategic alliance as a source of sustainable competitive advantage.

2.3.3 Comparison between the Market-based and Resource-based view

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<thead>
<tr>
<th>MBV (Industrial Organisation)</th>
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<tr>
<td>Assumptions about market</td>
<td>Coherent</td>
</tr>
<tr>
<td></td>
<td>Homogeneous</td>
</tr>
<tr>
<td>View of Organisation</td>
<td>Macro</td>
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<td></td>
<td>Micro</td>
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<tr>
<td>Nature of Competition</td>
<td>Market segmentation</td>
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<td></td>
<td>Capabilities</td>
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<td>Core competence</td>
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<td>Approach</td>
<td>Planned</td>
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<td>Emergent, gradual,</td>
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<td>Accepts givens</td>
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<td>Opportunistic</td>
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<td>Strategies</td>
<td>Generalised Models</td>
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<td>(planification, e.g. 7S, Porter 5 forces implementation)</td>
<td>Competitive Advantage</td>
</tr>
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<td>Resource derive, patterns</td>
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<td>tries to change variables</td>
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<td>Engage in manoeuvre</td>
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</tbody>
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92
2.3.4 Competitive Matrix

According to the literature on the airline industry and my findings, the nature of competition and the dynamic of the competition may differ in the North American, Asian, Latin American and European market.

The reasons for such differences will be explained with the help of the following matrix, which corrects an over simple view of competition by bringing into the equation the importance of new entrants into different markets and the relationship of this with the intensity of competition. The understanding of these relationships and why those markets differ from each other plays an essential part in understanding why the number of new entrants is the key issue to the level or intensity of competition.

Figure 12: Competitive matrix

The North American market (USA, Canada) as shown on the matrix, is characterised by the intensity of competition among carriers and the high level of new entrants on domestic routes and on price.
The intensity of competition in the North American airline industry on primary (main trunk routes from main airports) and secondary routes (regional routes from main and secondary airports) has increased and diversified since the market was deregulated in the 1970s.

The increase of competition has seen the appearance of a number of new entrants such as Southwest and other no-frill/low-cost airlines, who have been competing on the same routes as the main carriers (American Airlines, Delta Airways, USAir, United Airlines, and Continental to name a few).

The competition on price and routes and the appearance of new entrants in the North American market have not only been facilitated by the market deregulation but also by the lack of competition from other means of transportation such as train, boat, coach and cars.

In fact, the North American market is known as being a mass market (industry source), where people use the plane as a mode of transportation in the same way that Europeans use the train, bus, or car to travel from one city to another city e.g. London to Paris, London to Manchester, Paris to Nice, etc. This is principally due to the huge travelling distance between cities and states, but also to the number of airports and carriers available to the North American customers.

Therefore, the position on the matrix shows that the North American market has a high level of new entrants, which intensify the competition (price and routes), with already established airlines and offer alternative choices to North American customers. However, the kind of competition that is seen on the North American market may diminish in the future, due to the synergy of resources among some of the main and small airlines. This may induce a possible reduction of carriers on some of the most attractive routes one day.
The European market on the other hand, has not seen the expected high level of new entrants since the market was finally deregulated in 1997 (Open skies) as has happened in the North American market. One of the possible reasons may be due to the proximity of places and the competition of other means of transportation such as trains, cars, coaches and boats (The Economist, 1998).

In addition to this, the European market is not considered a mass market, where customers do not use just one means of transportation to travel from one point to another point, as it is the case in the USA for example.

Another possible reason for the low level of new entrants is that the European airline market is characterised by the synergy of resources and alliances among the main and small carriers since 1994 and 1997 (Hanlon, 1996; IATA, 1996,1997).

The same phenomena can be seen on the North American market, however, it cannot be compared with the European one, due to the proximity of places in Europe; different means of transportation and to some extent the number of airports in use in Europe.

The consequence of these agreements are a lack of competition on the principal routes to stimulate price reduction (IATA, 1996, 1997) and the appearance of only a handful of new entrants or newcomers such as Ryanair, Easyjet, Virgin, Debonair (since 1999 out of business) and Air One.

Most of the well-established carriers in Europe e.g. British Airways, Lufthansa, KLM, Alitalia, have knitted complex code-sharing, franchises or alliances between themselves and various key markets in a bid to reduce costs and enhance market penetration (Feldman, 1996). This will be explained in more detail in chapter 5 (strategic alliances). However, these alliances and code sharing may be responsible for the low level of new entrants in the market (low cost/no-frill airlines) even though the level of competition among the well-established carriers is in full action.
Even if the main carriers are facing the strength of the small number of new entrants, those low cost airlines will not be able to compete with them due to the scarcity of profitable routes and slots made available to them at main airports (Economist, 1997). Therefore the position of Europe on the matrix shows that effectively, the intensity of competition is there, but mainly among well-established carriers and their partners.

It also shows that the number of new entrants is relatively small and as such does not encourage a shake up in prices and routes made available to them on the main destinations and from the main airports (e.g. Heathrow, Frankfurt, Fiumicino, Paris, Madrid etc.). However, we should not forget that we are only a few years into deregulation, and that due to the change in customer’s taste and earning power and also the intensity of competition, we may see the European market opening more to new entrants.

But, it can also go the other way with the disappearance of some of the new entrants and the strengthening of the existing main carriers on their profitable routes and the development by these carriers of secondary routes from secondary airports (globalisation of the airline industry).

The position of Asia on the matrix is, to some extent, similar to Europe. The main Asian airlines (Garuda, Thai Airways, Singapore Airlines, Cathay Pacific, Malaysian Airlines, Quantas, New-Zealand Airways, Japan Airlines, All Nippon Airline) are the only competitors on the most profitable routes in Asia (Tokyo, Singapore, Jakarta, Hong-Kong, Taipei etc). The level of new entrants on the Asian market is very small, almost non-existent on most of the main and regional routes. The main Asian carriers have also knitted complex code sharing and alliances, which serve to increase barriers of entry to new or potential competitors. The other means of transportation such as trains, boats, cars and coaches are not as developed as in Europe or North America with the exception of a few Asian countries such as Japan and Singapore. This lack of transport infrastructure, along with the distance between Asian states, areas, and cities means that the plane is one of the most used means of transportation.
The Latin American market

The Latin American (South and Central America) position on the matrix shows the development of the industry in this part of the world.

Latin America is becoming one of the world’s fastest-growing industrial markets according to industry report (ATW, 1997). The total passenger market between the U.S. and Latin America grew from 14.8 million to 21 million a year. In 1995, 12.5 million passengers from Latin America visited the USA. According to industry reports e.g. IATA, ATW, the above figure is expected to double by the year 2000. According to a report published by Boeing, it is expected that the RPM growth for the Latin American market will be at 5.7% per annum. In other words, it will increase from 49.1 billion in 1997 to 61.6 billion in 2000 and 81.3 billion in 2005.

The reason for such an increase in passengers travelling is due to the strengthening of the economy in the Latin American countries, and the increasingly stable governments and liberalised markets. Trade agreements such as the Andean Pact and Mercosur are also responsible for the increase in the number of passengers travelling. These two trade agreements involve countries such as Brazil, Peru, Colombia, Ecuador, Venezuela, Mexico, Argentina, Paraguay and Uruguay to name a few. Both agreements permit cabotage right in a free-trading environment or extra-bilateral flying between member countries.

Even though the Latin America economy is getting stronger and stronger, the lack of transport infrastructure in terms of train, roads, and boats may limit the future development of the economy in these countries. In fact, some of the infrastructure such as road, rail, and boat are not as developed as they are in Europe, North America and to some extend in Asia. This may be due to the geographic characteristic of each of the Latin American countries. Therefore, it will come to no surprise to see the plane as the most used mean of transportation in terms of goods and passengers.
The level of new entrants in the Latin American market is very small, almost non-existent, on the main and regional routes. This may be due to the still political fragility of Latin American governments and economy, even if the Latin American market has been deregulated and a trade agreement signed.

Also, the lack of proper airport infrastructure in some of the Latin American countries and the heavy investment required to run an airline in terms of safety and regulation implemented by organisations such as IATA, DOT or the FAA is responsible for the level of new entrants.

However, whist the level of competition on the domestic or regional routes does not encourage a shake up in prices and routes made available to competitors, the international long-haul from South America to North America or Europe is very intensive as is shown by the figures above.

The undercapitalised Latin carriers have also knitted complex code sharing and alliances between themselves, as have their European, Asian and North American counterparts. They have done this in order to increase financial investment and to some extent increase barriers of entry to new or potential competitors such as the U.S. and European airlines that see the Latin American market as a potentially important market to enter as part of their global strategy.

In fact, according to industry report e.g. Aviation Week (1997, 1998), Latin American carriers will come under greater pressure in coming years to shore up finances and follow the lead of the European, Asian and North American carriers in setting up code-sharing agreement and alliances. Airlines in Central and South America should strike alliances with each other to defend their markets from further invasion by U.S. and European carriers.
This has already begun to happen e.g., airlines such as Aeromexico, which acquired a stake in Aero Peru, has a marketing agreement with Alas de Americas or Wings of the Americas, or Brazil's VASP which has formed an alliance with Ecuador airline, Ecuatoriana de Aviacion, Lloyd Aeroeneas Boliviano (LAB) to name a few.

However, Latin American carriers are seen as potential partners for the 5 big alliances such as the Star Alliance, Oneworld, Sky Team, Wings, and Qualifier (industry resources). The position on the matrix shows that the Latin American market is characterised by a low level of new entrants on domestic and short-haul flights. The low level of new entrants is not characterised by the lack of deregulation measures, or concentration of carriers as it is considered in Europe, but by the lack of adequate transport infrastructure such as well-equipped main and secondary airports, proper public transport to “feed” the airports, roads etc. Also, the lack of money or potential investors to finance newcomers in an already competitive market such as the airline industry is another factor that affects the number of new entrants.

On the other hand, the Latin American market has a high level of competition (price and routes) with already established airlines on short and long haul flights on the Latin American continent and to Europe and to the USA in particular. Furthermore, the choice of carriers made available to customers from Latin American countries to the USA or vice versa encourage them (customers) to look for the best available prices.

The Latin American market shows a huge potential in terms of “may be customers” to the home country carriers and foreign carriers. This is due to the travel distances between Latin American states, area, and cities. In fact, it can be said that the plane is one of the most used means of transportation in Latin America. Taking into account the persistence of economic stability and respect of trade agreements, competition among carriers and choice of fares will be facilitated.
However, the lack of infrastructure and finance available may see the disappearance of some of the flag carriers, who will be incorporated by other airlines or groups such as Oneworld, Star Alliance, Wings, Sky Team, and Qualifiyer. This will reduce the number of already existing small or medium size airlines, but increase the safety of travelling passengers and offer better quality service to a wide range of travellers.

Summary

In the preceding discussion our aim has not been to offer an exhaustive evaluation of either the market-based view or the resource-based view. Rather our intention has been to highlight the contrast between these two perspectives, especially in the two-column table on page 92.

This takes us to the provisional conclusion that while neither of these views is “right or wrong” in any absolute sense, the resource based approach does capture the initiative and proactivity at corporate level necessary for an understanding of developments and outcomes in the contemporary airline industry.

At the end of this broad discussion of these two approaches, we introduced a two by two matrix in which the airline industry for several different areas of the world is ranked in terms of high versus low competition and high versus low levels of new industry entrants in the deregulated period. This matrix is a concession to fair play, in that there are contrasts between the four geographic segments as one might expect in terms of the market based view, but also different airlines fair differently within the same segments. The chapters that follow will broadly use the resource-based view as a paradigm within which to explain how and why these differences came about.
2.3.5 Intention and Methods

As indicated in the Abstract the research question is: how do airlines use the differential power and means at their disposal to gain and sustain competitive advantage? In consequence a lot of what follows is about the Realpolitk of the civil aviation industry. It is about the real reasons for both their strategic and operational choices, about the advantage conferred by particular states and manoeuvres. In a few cases we draw attention to actions which actually contravene the regulatory order.

The methodology employed is not easy to characterise; it is not for the most part what is conventionally understood by either quantitative or qualitative. The essence of it is that we have used a range of published sources ranging from specialist literature and institutional reports to discussions in the quality press, in several countries, viz

- Reports and surveys from industry and other regulatory bodies such as the AEA, IATA, ATA, ATAG, ACL, ACI, ICOA, GAO, DTI, ERA, FAA, DOT and OECD
- Reports from the airlines themselves including British Airways, Lufthansa, KLM, Alitalia, Swissair, Air France, SAS, American Airlines, United Airlines, Singapore Airlines
- Reports from airline alliances including, Oneworld, Star alliance, Sky Team, Qualiflyer
- Reports concerning airports and from bodies which own/operate airports such as the BAA (British Airport Authority) in the UK, Geneva-Airport, Schipol Airport
- Discussions of developments in the industry using the quality press in several countries including the USA, France, Italy, Switzerland, Germany

Two considerations should be urged here. First, civil aviation is a well-documented and high profile industry, albeit industry knowledge is often needed to make sense of the data and formal discussion. Second many of the institutions, companies, and regulatory bodies do have web sites, so that access is facilitated.

So that there is abundance of data and published discussion in the public domain, albeit a lot of it not easily accessible or meaningful to the layman.

This public domain data has been the raw material for the working out of our resource based view of the industry, and in particular in regard to:

- Cross-airline ownership stakes
- The relations between the (same powerful) airlines and the airports they use
- The strategic alliances that have come to dominate the industry.

In addition, and after the secondary analysis and interpretation of published data sources, we carried out a series of interviews with key informants draw from airlines, airports, and the regulatory authorities. These interviews served as a check on our findings to that point, and led to some qualification of the resource based perspective. In the next chapter, we will address the first of their key issues, the critical relationship between airlines and airports.
Chapter III

3.0 Airports and Airlines relationship

In the era of airline alliance and globalisation airports have become a very important factor for the future economic growth of countries and in their success in attracting and retaining alliance business and carriers. In fact, due to the "emergence of global airline alliances" (industry sources), which were formed to evade a number of government restrictions according to industry sources, the airline industry has laid the foundation for the world's future air transportation system (Ott, 1999).

The rapid growth of air traffic has put heavy demands on airports and air navigation systems and has caused serious congestion problems in some areas of the world (ACI, 1999). In fact, in many countries as mentioned in Chapter I, flying is no longer limited to the businessmen or businesswomen, the rich and famous, but is becoming a commodity like any other. It is expected that in the near future, air transport will become a much more commonplace form of travel.

As mentioned in Chapter I, the air transport industry is moving towards the formation of five huge airline partnerships, that have taken shape and will add market value, network connections and new members. The five main groupings include members from among the top 25 world carriers and middle size airlines. These alliances are having an important impact at many levels according to Ott (1999).

Some of the impact can be seen at the employee level, employees are learning to deal with their colleagues that once belonged to rival companies (Ott, 1999). In 1999, the 158 airlines in Europe employed more than 400,000 people (Europa, 1999), which may complicate the working relationship among carriers involved in global and strategic alliances. Also, according to the industry literature top managers are looking for the right strategic partnerships that will increase their market share and extend their route networks, to ensure the future of the carrier i.e. scope, mission statement, (Ott, 1999).
Therefore, to ensure or further the development of the airline industry or the air transport industry as a whole, airports must look at ways to accommodate the alliance demands. These demands may include; operations and facilities offered to the carriers and the need of non-aligned or low cost/no-frill airlines according to the industry literature such as ATW, AEA, ICAO, ACI, Aviation99, Aviation Week and Technology. In other words, airports are the vital link in the world's transportation network according to the Airports Council International and other industry sources. Also, the transition of air transport from being transportation for an elite to transportation everybody has been "the most important development affecting regulatory practices", according to the same source (ACI, 1999). In fact, the increased level of competition e.g. global alliances such as the Star Alliance or Oneworld, may cause a conflict of interest between airlines and airports (industry source). This can be seen in the way airlines are trying to capture markets and dominate hubs.

As it has been described in the air transport literature and reports, airports play an important role in today's rapidly changing global economy, and contribute significantly to the development of the industry (ACI, 1998/99). Airlines contribute to the economic growth of a country and airports e.g. British Airways employs over 50,000 people, Lufthansa over 30,000, Air France over 40,000 and KLM over 20,000 to name a few (Europa, 1999). Airlines and airports are reciprocal partners, and one cannot exist without the other, even if the airlines have bargaining power that is non-negligible, when deciding which routes, frequencies and airports are most valuable to them.

Therefore, it is in the interest of airports to ensure that such concentration and domination of only a certain type of airline e.g. Star Alliance, Oneworld alliance do not become a reality or these airports may become too reliant on those airlines. Even if it can be already seen at certain airports such as Heathrow, JFK, Zurich-Kloten, Paris Charles De Gaulle, Schipol-Amsterdam, Frankfurt, and Munich. Therefore, to avoid a concentration of few airlines, airports must offer the right facilities such as available slots, gates, services, ground handling to airlines at an affordable value (ACI, 1998/99; others general industry source).
Therefore, airports have developed from being solely providers of the airline infrastructure (1950-1980), to a very important role as “poles of economic development” (ACI, 1999). In other words, airports had to develop their offers and infrastructure, in order to respond to change in a competitive environment, change in regulation, safety, and to attract potential airlines e.g. low-cost/no-frill, regional airlines, main airlines or to retain airlines that have a huge passenger load and frequencies. In fact, in today’s opening up of markets or the breaking down of economic barriers and the need of both good communication network and adequate infrastructure has become of vital importance (IATA, 1998/99; ACI, 1999).

By responding to the changes in a competitive environment and at the same time developing their infrastructure, “airports all around the world act as a magnet to a wide range of industrial and commercial enterprise” (ACI, 1999). Some of the changes include bigger runways, more efficient terminal layouts, and better facilities for check-in and ticketing and faster passenger and luggage transfer. They also include, better road and train infrastructure for passengers, car parks, improved facilities on offer to passengers in terms of shops, restaurants, toilets, shower, lounge room for Business and First class passengers, doctors, banks and so forth.

All these developments in airport infrastructure have helped the economic growth of the area or countries. They have achieved this through the creation of employment, businesses and the development of links between “interdependent” markets (ACI, 1998/99; IATA, 1997/98/99; other industry sources). Furthermore, these infrastructures have helped the development of industries that are located around airports, to have easier access to air transport, better road and rail links (ACI, 1999). This shows that without the appropriate infrastructure in place, airports would not be able to attract airlines such as British Airways, American Airlines, Delta Airways, Lufthansa, KLM, Singapore Airlines, and Cathay Pacific to name a few.
This will be particularly true in the near future, where the above carriers may use new double decker jets, which would seat up to 600 passengers, which may cause airports to review and adapt their structure. In fact, in the future airports will need longer runways, larger gate areas, and larger terminals to accommodate these new aircraft and better road and train infrastructure to sustain the influx of passengers (ACI, 1999). Moreover, other industries would not establish their headquarters around the airports, which in turn could deter big airlines from using the airport on a regular basis; they would instead concentrate their flights to more adequate airports.

This is particularly true in today’s competitive environment where premium passengers (First and Business Class) are what can make or break an airline. In fact, according to industry sources, most carriers make most of their revenue on long haul and short-haul First and Business class passengers. The premium price they charge and the economy seats sold covers the costs the flight has incurred and what is left goes toward airline profit. In order words, as mentioned in Chapter I and according to industry sources, if an airline leaves with a full First or Business class and a half empty economy class, the carrier is making money.

However, if an airline leaves with an empty or half empty Business or First Class and even full economy class, the airline would only cover the cost of operating the flight or even lose money. Therefore, it is important for the airlines to choose carefully, which routes or airports may bring the highest income in combining premium class and economy class. Also, it is in the airports’ interest that the infrastructure is there to support the airlines’ requirements, and the businesses surrounding the airports, with better facilities such as parking, route network such as motorway, public transport, and so on.

As stated previously, air transport is an important asset for the economy of each state (ATAG, 1998). In fact, the industry generates “wealth and stimulates the growth of industries worldwide” according to the same source.
In a survey released by the ACI in 1998 the important role of airports in generating employment opportunities, is acknowledged and confirmed. According to the survey (ACI, 1998), among the 417 airports studied it was reported that “over 260,000 persons are employed directly by airport operators, and almost 2.5 million additional persons are employed on airport sites”.

In the same survey, it is shown that the number of employees in North America and in Europe has almost doubled. In fact, if you take into account properties around or adjacent to airport sites, the global figure of direct employment at airports is estimated by the ACI at 4 million (ACI, 1999). As a whole, the air transport industry contributes 28 million jobs to the world’s workforce and US$ 1,360 billion in annual gross (ATAG, 1999).

3.1 Types of Airport

According to the air transport literature, airports fall into three main categories related to capacity and scale of operation. International airports have a capacity of more than 20 million passengers, national airports between 2-20 million and regional airports up to 2 million. However, the above definition does not completely define the capacity and scale of operation. In fact, every country around the world has more than one international airport, for example Switzerland has Kloten Airport at Zurich and Geneva airport, or Britain with London Heathrow, Gatwick, Manchester-Airport, and Stansted. Some of the above airports are used by airlines for international long haul and others as domestic or intra-European short-haul, or for both.

The capacity of some of these international airports can vary from 5 to 10 or over 30 million, depending on the size of the country and airline traffic frequency or number of airlines using the airports.
In a report published by the Airports Council International (2000), Atlanta-Hartsfield, which handled 77.9 million passengers is the world’s busiest airport, followed by Chicago O’Hare with 72.6 million passengers, and Los Angeles International with 63.9 million passengers (see table 10). The top 30 airports in the world accounted for 39 percent of total passenger traffic in 1999. However, according to the same report, four European airports dominate international passenger traffic (see table 11). London Heathrow with 54.8 million (+3 percent), lead Paris CDG with 38.9 million (+13 percent), followed by Frankfurt with 37.2 million (+9 percent) and Amsterdam with 36.3 million (+7 percent).

Table 10: Top 10 world airports (1999)

<table>
<thead>
<tr>
<th>Airports</th>
<th>Passengers (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td>77.60</td>
</tr>
<tr>
<td>Chicago O’Hara</td>
<td>72.60</td>
</tr>
<tr>
<td>Los Angeles International</td>
<td>64.28</td>
</tr>
<tr>
<td>London Heathrow</td>
<td>62.00</td>
</tr>
<tr>
<td>Dallas Forth Worth</td>
<td>60.00</td>
</tr>
<tr>
<td>Tokyo Haneda</td>
<td>54.30</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>45.40</td>
</tr>
<tr>
<td>Paris Charles de Gaulle</td>
<td>43.60</td>
</tr>
<tr>
<td>San Francisco</td>
<td>39.50</td>
</tr>
<tr>
<td>Denver</td>
<td>38.00</td>
</tr>
</tbody>
</table>
### Table 11: Top 10 airports in terms of International Passengers

<table>
<thead>
<tr>
<th>Airport</th>
<th>Passengers (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>London Heathrow</td>
<td>54.83</td>
</tr>
<tr>
<td>Paris Charles de Gaulle</td>
<td>38.89</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>37.10</td>
</tr>
<tr>
<td>Amsterdam</td>
<td>36.30</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>29.73</td>
</tr>
<tr>
<td>London Gatwick</td>
<td>27.63</td>
</tr>
<tr>
<td>Singapore</td>
<td>24.50</td>
</tr>
<tr>
<td>Tokyo Narita</td>
<td>22.50</td>
</tr>
<tr>
<td>Bangkok</td>
<td>18.85</td>
</tr>
<tr>
<td>New York Kennedy</td>
<td>18.11</td>
</tr>
</tbody>
</table>

Sources: BAA plc/Aeroports de Paris/Airport Council international/ (ACI)/individual airports

### 3.2 Aeronautical and non-aeronautical sources of income

Airports in Europe have been administered and controlled directly by the state or by well-intentioned officials on behalf of their governments (industry sources). However, industry and market deregulation in the early 1990s, have forced officials to hand over some of their shares to the private sector to run their airports more efficiently and more commercially. However, according to the industry literature and an article written by O’Connell and Freathy (1999), governments were not reluctant in handing over some of their shares, in fact, by doing so they have avoided the financial burden associated with subsidising airports, especially in Europe.
The money that was needed to upgrade the airport infrastructure in order to abide by the new safety regulation and industry deregulation and increase number of airlines would have dented expenditure in other areas, such as "education, health and defence" (O'Connell and Freathy, 1999). However, governments throughout the world, still have a form of control or ownership over the majority of airports. For example, Geneva-Airport has been run as a private company since 1994, but the politicians still have their say on some of the strategies implemented by the private sector.

In fact, the local government in Geneva still has ownership of some of the shares in the semi-private Geneva-airport structure, or Zurich-Kloten which is becoming a private entity but still is partially own by the government.

Another example is Rome-Fiumicino-Airport in Italy, whose shares have been sold to the private sector by the Italian government, but still has a seat on the board of directors. The majority of airports in the USA used by scheduled airlines are still owned by municipality, cities or states, and are run by an agency of the state or local government (ATA, 1997; and other industry sources). Others are run by private companies on behalf of the local government or state that pays fees to the management for its services (ATA, 1997). For example, British Airport Authority runs the Indianapolis airport on behalf of the local government and is in discussion with other airports such as JFK.

As mentioned in Chapter I and above, it is in the government’s interest to help the commercial development and airports’ infrastructure. In fact, by facilitating the development of new infrastructure i.e. route network around airports, rail link or the establishment of new industries, e.g. tax exemption, governments are assured of a healthy income and re-invest the money in some other part of the economy to sustain future growth.
Airports having become semi-private or private e.g. London Heathrow run by the BAA plc, have had to cope with a reduction in state involvement and increasing passenger numbers, and therefore were forced to reconsider the way they generated income.

Some of these charges are aeronautical and commercial. Aeronautical charges are levied on airlines that use their facilities. Commercial charges are levied on the rent of space made available to businesses and commerce such as car parks, retailers, banks and so forth. The importance of commercial enterprise and retail operations has become a key central element in raising the money to improve the airport infrastructure. As well as the aeronautical charges according to the airline and airport literature (ACI, 1999; Freathy and O'Connell, 1999). However, airport authorities try not to change aeronautical charges too often due to airlines operating on a limited margin, and in order to keep airfares low e.g. London Heathrow and Gatwick according to industry literature such as ACI, ATW, ATAG, IATA, Europa to name some.

In an Airports Economic Survey published by the ACI in 1998, it is stated that on average “non-aeronautical sources of income represent over 52 percent of total airport revenue”. Also the same survey shows an increase of 6 per cent when comparing the same survey in 1995 and 1996. In the same report, “the proportion of aeronautical and non-aeronautical revenues in North America, Europe and Asian airports is very similar, 54 percent for the non-aeronautical and over 46 percent for the aeronautical”. Furthermore, the survey highlights that the revenue e.g. non-aeronautical in Europe is much greater than in North America (see table 12). Total revenues per passengers in Europe averaged US$ 18,15, while in North America US$ 6,61. This is due to “higher airport charges and expenditure in ground handling operations performed by the airport operator in Europe and higher expenditure on retails good per passengers” (ACI, 1999).
According to the same survey, aeronautical revenues in both African and Latin American/Caribbean continue to exceed non-aeronautical revenue. This is mainly due to the small size of the airports and the lack of development or lucrative landsite activities e.g. parking concessions, and retail concessions, that Asian, European and North American countries enjoy (Behnke, 1998).

Table 12: Non-aeronautical charges

<table>
<thead>
<tr>
<th>Region</th>
<th>Parking</th>
<th>Retail</th>
<th>Real estate</th>
<th>Rental cars</th>
<th>other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>12.8%</td>
<td>44.4%</td>
<td>20.7%</td>
<td>2.7%</td>
<td>19.4%</td>
<td>100</td>
</tr>
<tr>
<td>N. America</td>
<td>37.4%</td>
<td>13.3%</td>
<td>7.8%</td>
<td>19.8%</td>
<td>21.7%</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Airport Economics survey (1998)

The main sources of airport revenue are landing fees, concession and lease income obtained from airlines, retail outlets and car park operators (ACI, 1999). Income from commercial activities includes up to 50 percent of total revenue for larger airports as mentioned above, with 80 percent of that coming from concession related to “car rental, car parking, retail and catering”. However, the sources of airport revenue may vary from country to country as mentioned above and according to industry sources.

3.3 Costs incurred by airlines at Airports around the world

Airports like all the other services in the air travel industry, need to raise money in order to sustain and develop their infrastructure and offer high quality service to airlines and customers. “Airlines have a tendency to blame airport charges for their financial problems” (ACI, 1999).

Airport charges fall in two categories as mentioned previously, “Aeronautical and
Ground handling charges”. The first is levied for the use of an airport’s runway, apron and terminal facilities and the second charge covers the servicing of an aircraft and its payload (AEA, 1998/99). However, according to the industry literature airport charges worldwide have been a very stable component of the operating costs of an airline, even though it is still a very important factor of their total cost base.

In fact, in the past 10 years the charges have remained at around 4 per cent of the costs of an airline. However, according to the Association of European Airlines (AEA), the inefficiency in air traffic control in Europe and some parts of the world, and excessive airport charges are putting at risk the efforts made by the airlines to improve flight punctuality and airline profits (Sparaco, 1998). This is particularly true when airlines have succeeded in bringing internal costs under control (AEA, 1998). According to the AEA industry report (1998) and the Cranfield survey (1998) the attention of the carriers “has turned increasingly to the external costs which are making up an ever-growing proportion of their total cost base”.

In a report published by the AEA (1999), it was indicated that in 1997, an average 19.5% of flights were delayed more than 15 minutes. Delays are responsible for some of the costs airlines have to account for. In fact, “the slow and inefficient clearance of passengers, baggage and cargo by government inspection services at many airports causes bottlenecks and delays” (ACI, 1999). According to the AEA survey (1998), bad weather condition had a minimum impact on delays, and aircraft handling, technical problems accounted for no more than 7% of the delay (Sparaco, 1998).

However, according to the same survey, airports and Air Traffic Control (ATC) caused about 60-65%. Furthermore, excessive airport fees and ground handling costs at European airports have complicated the airlines effort to improve profitability (AEA, 1998/99; IATA, 1998/99). Airport and ground handling expenditure averages 24.1% of European carriers operating costs, more than ticketing and sales at 16.9%.
Also, cockpit crews at 13.1% or fuel at 7.2% are lower than airport and ground handling expenditure, according to the survey published by Cranfield College of Aeronautics Air Transport group and sponsored by the AEA (1998) and as mentioned in chapter I (see figure 6).

The above study focuses on major European airports, and takes into account examples from the U.S. and the Far East, to identify areas where the airlines, which belong to the AEA, are not satisfied with the services they pay for. According to the study, AEA members pay $3.5 billion a year in landing charges and more than $7 billion for aircraft ground handling services. For example, the turnaround costs of a Boeing 747 can be as high as “$19,275 at Europe’s highest priced hubs, which are Paris Charles de Gaulle, Frankfurt, Munich 2, Vienna, Rome and Athens” (Sparaco, 1998; AEA, 1998; and other industry sources). If you multiply these charges by the number of flights an airline makes a day, the costs can be very high, and to compensate airlines will have to recoup the costs from the passengers.

According to the Cranfield study, the cost for passengers can be as high as $65 for a Boeing 747. However, at “cheaper” airports such as London Gatwick, Luxembourg and Malta, still according to the same study, the costs can be as low as $15.90. Other airports such as London Heathrow, the busiest airport in Europe and among the top 10 in the world for example, which is run by the British Airport Authority plc, try to keep airport charges as low as possible “to avoid a hike in airline tickets” and a possible reduction in passengers using their facilities (AEA, 1998; Sparaco, 1998; BAA, 1998). While comparing the airport costs at major U.S. airports, the costs are significantly lower than in Europe according to the Cranfield study.
3.3.1 Airport tariffs and charges

Tariffs that are levied by airports around the world are published and made available to potential or existing carriers that use or want to use their facilities. According to the industry literature, these tariffs consist of a single scale of charges that are applied all year round (Fiscal Studies, 1993). The landing fee that the airport charges the airlines is based on weight; the heavier plane, the heavier the higher the cost. In addition to this, a separate charge per passenger also called airport tax is added.

These charges vary depending on the country, according to industry sources. Charges could come in the form of user fees collected from travellers and shippers, surcharges or plain taxes collected on domestic markets e.g. 10% tax on tickets, 6.25% tax on domestic air freight, $6 departure tax for all travellers leaving the USA (ATA, 1998). Also, governments and airports levy additional taxes such as fuel tax, taxes on agriculture, taxes on the environment, taxes on the gas emission in order to finance the restructuring of airport infrastructure, investment in clean public transport, and the economic development of the area, according to industry sources and company reports.

All these charges are known to add to the cost of an airline ticket, and the profit margin of a carrier is becoming smaller due to the intensity of competition on certain routes and the need to offer a competitive airfare and value for money (ATA, 1997; The Washington Post, 1999).

According to the Air Transport Association, the airline industry paid $18.8 billion in taxes and fees, not including state and local taxes in 1998 (The Washington Post, 1999). Most of the added taxes or costs are included in the base price of a ticket. For example in an article published by the Washington Post in 1999, a round-trip ticket from Reagan National Airport to Rochester, N.Y. on US Airways cost “$481.66 plus $6 tax called passenger facility fee, plus US Federal tax $38.53, plus Airport tax $40” (The Washington Post, 1998). In total the airline ticket costs to the passenger was $530.19 nearly $50 above the actual ticket cost.
According to a study published by the Fiscal Studies in 1993:

The different charges paid by differently sized aircraft generally go far beyond any difference in cost, which might be caused, by the difference in size. The main explanation for the differences is the ability to pay. Larger aircraft can be charged more mainly because they tend to make longer flights. On longer flights, airlines have a larger competitive advantage over other forms of transport and the landing charge is a smaller proportion of total travel costs” (Fiscal Studies, 1993).

In other words, the greater charge has less impact on the viability of the flight. However, according to the same study, “London Heathrow and Gatwick airport are the exception to this general situation”. Compared to the industry norm, “both airports charges are distinctive in the way that they change according to time, day and by season” (Fiscal Studies, 1993). Also, they incorporate “flat rate charges per aircraft irrespective of size” (Fiscal Studies, 1993). This means, that there are wide differences between peak and off-peak periods for all types of aircraft in terms of charge.

To sum up, here is a list of airport charges applied by most of the airports throughout the world published in the Journal of Air Transportation Worldwide (De Wit and Cohn, 1999), though this list is not exhaustive:

- Basic landing fees: based on maximum take-off weight (MTOW). Some airports charge per tone whiles others apply a fixed charge plus a variable charge based on MTOW.

- Noise charges: the charge is based on the type of the aircraft. In other words the noisier the aircraft the more you pay. Also, the amount carriers are charged depends on “the airport or country specific aircraft acoustic group classification e.g. France, Belgium, Switzerland and Korea” (Journal of Air Transportation Worldwide, 1999).
- Passenger charges: the charge is levied for services provided to departing passengers; however, some airports charge arriving and departing passengers.

- Security service charges: calculated per departing passenger. Some airports base the charge on the MTOW and then on the number of passengers in the plane.

- Runway lighting charges: only apply to night flights, but can be charged to carriers in case of bad weather or very poor visibility.

- Aircraft parking charges: are based on the number of hours an aircraft is parked at the airport. Most of the airports provide one to four hours of free parking time, which is usually, enough to allow for a complete turnaround.

- Terminal navigation aid charges: cover navigational assistance during arrival and departure. The charges are based per arrival and departure and sometimes based on the MTOW.

- Airbridge fees: are applied to the facilities used for passengers boarding and alighting. In some airports it is the use of buses that is charged to carriers from the gate to the aircraft.

- Cargo charges: are based on the weight of the loaded or unloaded cargo.

- Fuel costs and handling costs: the calculation is based on agreements that exist between airlines, handlers, fuel vendors and airports. The prices charged to carriers may depend on the size of the airlines and its use of the facilities made available by the suppliers.

- Other charges include: fire fighting service, aircraft cleaning, and storage facility use and hangar charges to terminal and quarantine surcharges.
3.3.2 Comparison of aeronautical and non-aeronautical charges at some airports

As mentioned above, tariffs and charges vary at different airports throughout the world. The following list of samples of charges (see table 13) in terms of aircraft type amongst some of the main airports in Europe, USA and Far East airports has been taken from a study published by the Cranfield College of Aeronautics and sponsored by the AEA in 1998.

The list classifies airports in terms of the most expensive to the cheapest regarding charges in Europe, the USA and the Far East. Also, the turnaround costs were calculated by the Cranfield College of Aeronautics for the B747-400 at 80% load factor, 335 passengers; for the A300-600 65% load factor, 152 passengers; and for the Boeing 737-400 70% load factor, 91 passengers.

Table 13: Total charges at European airports per Turnaround in USS

<table>
<thead>
<tr>
<th>B747-400</th>
<th>A300-600</th>
<th>B737-400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vienna</td>
<td>18,850</td>
<td>Vienna</td>
</tr>
<tr>
<td>Munich</td>
<td>16,462</td>
<td>Munich</td>
</tr>
<tr>
<td>Paris CDG</td>
<td>16,223</td>
<td>Frankfurt</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>15,672</td>
<td>Paris CDG</td>
</tr>
<tr>
<td>Fiumicino</td>
<td>15,228</td>
<td>Fiumicino</td>
</tr>
<tr>
<td>Zurich</td>
<td>14,230</td>
<td>Amsterdam</td>
</tr>
<tr>
<td>Manchester</td>
<td>13,251</td>
<td>Zurich</td>
</tr>
<tr>
<td>Amsterdam</td>
<td>13,215</td>
<td>Manchester</td>
</tr>
<tr>
<td>Bruxelles</td>
<td>12,605</td>
<td>Heathrow</td>
</tr>
<tr>
<td>Madrid</td>
<td>11,739</td>
<td>Madrid</td>
</tr>
<tr>
<td>Heathrow</td>
<td>11,342</td>
<td>Gatwick</td>
</tr>
<tr>
<td>Gatwick</td>
<td>9,511</td>
<td>MLA</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>8,621</td>
<td>LUX</td>
</tr>
<tr>
<td>Larnaca</td>
<td>7,545</td>
<td>Larnarca</td>
</tr>
</tbody>
</table>
Table 14: Total charges at American airports per turnaround in US$

<table>
<thead>
<tr>
<th></th>
<th>B747-400</th>
<th>A300-600</th>
<th>B737-400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>8,197</td>
<td>4,495</td>
<td>2,799</td>
</tr>
<tr>
<td>Houston</td>
<td>6,469</td>
<td>3,812</td>
<td>2,779</td>
</tr>
<tr>
<td>Miami</td>
<td>5,971</td>
<td>3,340</td>
<td>2,134</td>
</tr>
<tr>
<td>San Francisco</td>
<td>5,343</td>
<td>3,382</td>
<td>2,096</td>
</tr>
</tbody>
</table>

Table 15: Total charges at Far East airports per turnaround in US$

<table>
<thead>
<tr>
<th></th>
<th>B747-400</th>
<th>A300-600</th>
<th>B737-400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>9,825</td>
<td>5,390</td>
<td>2,908</td>
</tr>
<tr>
<td>Bangkok</td>
<td>8,762</td>
<td>5,255</td>
<td>2,588</td>
</tr>
<tr>
<td>Jakarta</td>
<td>7,813</td>
<td>3,390</td>
<td>1,885</td>
</tr>
</tbody>
</table>

The above list demonstrates that prices charged by European airports in comparison to the USA and the Far East are in general higher. According to the Cranfield College of Aeronautics and the AEA survey (1998) for example, the average charges between the European airports and four US airports and three Far East airports is +101% and +48% for the latest for the B747-400.
3.4 Bargaining power of airlines toward airports

According to "The Economic Benefits of Air Transport" (ATAG, 2000), air transport’s current contribution to the world’s workforce and US$ 1,360 billion in annual gross output is forecast to grow to US$ 1,800 billion with 31 million jobs provided by 2010 (ATAG, 2000). These figures underline the continuing importance of the industry to the world economy and the need to support its responsible growth.

According to the same source over “1,600 million passengers per year rely on the world’s airlines with about 40% of the world’s manufactured exports, by value transported by air” (ATAG, 2000). It is also expected that by 2010, the number of people travelling by air will exceed 2.3 billion each year (ATAG, 2000; IATA, 1999). Therefore investment in improving airport infrastructure, addressing the problems of runway availability and adequate numbers of slots to airlines, as well as airline operations will be necessary in order to ensure future growth.

Airline deregulation has generated substantial economic benefits for the vast majority of the travelling public according to industry sources. The competitive landscape of commercial aviation throughout the world has changed the way airlines operate and it has also seen the appearance of new entrants and disappearance of well-established old carriers such as Pan-Am and Branniff. In response to the change in the competitive environment, the major airlines in Europe and particularly in the USA “expanded the use of hub and spoke networks and created connecting hub airports around the country” (FAA, 1999).

As described and explained earlier in this chapter and in Chapter I, operating a hub creates service advantages for many travellers. It offers the passengers at hub airports more flights and enables airlines to offer more service in markets without enough traffic to sustain a non-stop service (FAA, 1999; IATA, 1999; AEA, 1999; other industry sources).
However, according to the Federal Aviation Authority (1999) "the efficiency gains of hub operations make it more difficult for other air carriers to challenge the dominant carrier in local markets, thereby allowing it to charge high average fares in many local hub markets" (FAA, 1999). This statement is corroborated by industry analysts and the main aviation bodies such as IATA, AEA, ICAO, DOT, CAA etc.

According to the industry analyst, "the lack of competition and anti-free market federal rules are part of the problem contributing to higher fares" (Serrao, 1999). Other factors which contribute to the trend for higher fares are; the lack of access for million passenger to airports, an inadequate number of slots made available to carriers at airports and the charges incurred by airlines, which are recouped by the carriers on the ticket. Therefore, carriers may have stronger bargaining powers with airports and governments as neither airport authorities or government want to see a decrease in their income and reduction in competition.

3.4.1 Airport slots

Slots are defined by the ICAO, as the specific time allocated for an aircraft to land and take off.

The main airports in Europe and around the world are already over stretched according to industry sources (ATW, 1999). For example, Heathrow airport at peak time is using 99.5% of its capacity available, Frankfurt 91.7% and Paris Charles de Gaulle 72.8% (industry sources). The main carriers who use these airports e.g. British Airways, Lufthansa, Air France, as hubs or have the main slots use this as a way to put pressure on other airlines or restrict the allocation of extra slots to new-entrants. These new entrants have to look to secondary airports, where better choices of take off slots are available and operating costs are low.
London Heathrow airport known as the world’s busiest airport (Guardian, 1998) has 430,000 slots, this means 430,000 take off and landings in the space of a year (Guardian, 1998). According to industry sources e.g. IATA, ATW, AEA, and Guardian, British Airways has the right to a substantial proportion of them, however, the exact number seem only to be known to them.

According to industry sources, the value of a slot can differ depending on whether the slot is hard to get or worth more than the one that is easy to come by. In other words, to an airline the economic value of its slot “is worth the value of the net profit, which is retrieved from fares” (Serrao, 1999). The premium an airline is able to charge as a consequence of its slot operations at the main airports throughout the world determines the high value of the slot (Serrao, 1999; FAA, 1999).

Therefore, the increase in competition between the main carriers that own most of the slots at main hubs around the world and new-entrants, should lead to a decrease in fares. According to Serrao (1999), a “decrease in fare might conceivably diminish the value of that slot for it will mean that the slot no longer holds the same economic value as it did when it generated the high fare”.

Therefore, the main carriers, to avoid loosing “ the premium” in the value of their slot, make it very difficult for new entrants to acquire worthwhile slots at an economic price, or buy extra slots that will be transferred to their franchisee or low-cost carrier. This happens despite the deregulation act under which unfair competition or predatory pricing is not permitted. There is a clear risk of reducing the potential competition at main airports, for example British Airways or KLM using their franchise or low-cost airlines such as Go (until 2001 when it was sold off by British Airways) or Buzz (from 2000) to use the available slots instead of a direct competitor.
Airport infrastructure capacity constraints are “crucially important in determining the long term development of the air transport sector” (Reynolds-Freighan and Button, 1999). The ownership of slots has become a vital factor since the deregulation of the industry in the early 90s.

In fact, the formation of global alliances such as the Oneworld and Star Alliance and the capacity shortage of airports or scarcity of slots made available to new entrants to ensure the so called fair competition has put lots of pressure on airports and government. The result of such developments is the rationing of take-off slots at main airports throughout the world according to industry sources.

According to industry sources, take-off and landing slots are allocated by “traffic distribution rules” or “by scheduling committees” (Hanlon, 1996). In fact, it seems to have been accepted that “airline scheduling committees act on behalf of airports and therefore the implication is that the slots belong to the airports if they belong to anyone” (Reynolds-Freighan and Button, 1999). In other words, it means that the slots allocated to carriers, mainly flagship carriers, before, during and after the deregulation of the industry belong in practice to the carriers so long as they carry on using them. Also, slots cannot be made available to competitors, unless released by the airlines that do not own them on paper but do own them historically.

To strengthen this statement, “a court might rule that even if the airport, the state or someone else owned the slots, to remove them without due process from the airlines who enjoyed their use would be unreasonable” (Reynolds-Feighnan and Button, 1999).

The way airport slots are allocated is one of the most “controversial topics” in the field of air transport economy according to industry sources (Hanlon, 1996). Scheduling committees are the bodies that assign slots at airports. An airline can apply twice a year and these are allocated in October for the following summer season and in June for the winter season (Guardian, 1998).
The slots are allocated according to “grandfather rights” which means, “use it or lose it”. It includes “regular year-round services, a precedence to rescheduling to accommodate larger aircraft, rescheduling due to differences in daylight saving time” (Hanlon, 1996; Guardian, 1998). In other words, absorbing slots that are available or not used by other airlines during the year. The other way carriers throughout the world have acquired slots is “historically” which means that by their presence at a particular time and airport give them the ownership of these slots.

As mentioned above, due to capacity shortage or slots available, not all carriers receive the number of slots they ask for. Therefore, to ensure the best possible slots or increase the number of slots required by an airline a process of trading takes place as soon as the scheduling committees confirm the allocation of slots (Hanlon, 1996; Guardian, 1998; ACI, 1998). Airlined swap slots in order to improve their position at the airport under the supervision of the scheduling committees, that will only authorise it when it has checked there is enough terminal and apron capacity available (ACI, 1998; Hanlon, 1996). These negotiations take place at the airport “where million of pounds are traded as the large carriers view to get the best position on the apron” (Guardian, 1998).

This under the discretion of some governments, the British government for example, decided to leave slot allocation to the airport and airline, under the supervision of the Airport Coordination Limited (ACL) in an agreement made in 1992 between British Airways and them.

Since 1992 the ACL “has taken the responsibility for sharing out a total of more than 1.4 million slots annually at Heathrow and other UK airports” (Guardian, 1998). The ACL committee is made up of nine members from UK airlines, such as British Airways, Virgin Atlantic, British Midland to name the three most important ones. The Chair of the scheduling committee is or used to be a British Airways employee, Mr. Richard Wyatt (Guardian, 1998).
This type of slot negotiation happens in most airports around the world, except in the USA, where airports such as Chicago O'Hare, JFK, La Guardia and Washington National trade in money for domestic flight slots (Guardian, 1998; Hanlon, 1998).

According to industry sources, domestic slots at these four heavily congested airports can be bought or sold for money and can fetch a price anything up to $3 million (Guardian, 1998). Not only can domestic slots be bought but also long-haul slots such as American Airlines who bought the slot rights from Trans World Airlines or United Airlines with Pan Am on the same route for $35 million, in order to have access to Heathrow airport (industry sources).

In Europe such procedures are rare or not as well publicised as in the USA. Not so long ago, Bob Ayling former British Airways Chief Executive admitted in front of a Parliamentary Select committee on fair competition that British Airways did purchase slot rights at Heathrow airport and other airports in order to increase its strength. British Airways paid Air UK now KLM UK, £11.10 million or $16.3 million for eight daily London Heathrow slots (Feldman, 1998; other industry sources)

In fact, slots for airlines are the most valuable assets according to the Guardian (1998) using a busy international hub, for example, British Airways at Heathrow airport, Lufthansa at Frankfurt airport, Delta at Atlanta, United at Chicago O'Hare, Air France at Charles de Gaulle, and so on. According to the same paper and other industry sources, it is easy for an airline to value assets such as fleet, engineering equipment, terminals, and computer systems, products and so on. However, it is hard to put real value on a slot, even if the slots could be worth millions and millions of pounds.
As was expressed in the Economist (1998):

Airport slots are the currency of air travel. Most international airports are so congested that an airline’s profitability depends on whether it has slots at peak periods on a given route. Until now slots have been allocated in secret, to the great benefit of national incumbents and to the detriment of competition and national exchequers. Airlines claiming historic rights over certain routes have been able to charge premium prices reflecting scarcity value. That explains why it costs almost as much to fly from London to Nice as it does to Miami, five times the distance.

According to industry sources, because of the value of the slots at main airports and the increase of traffic on both sides of the Atlantic and on Australasia routes, some airlines and governments have questioned the system of slot allocation at main airports throughout the world. Many carriers have complained of unfair competition in allocating slots and favouritism and asked for new laws or regulations to be introduced in order to make the system fairer and clearer.

The first to introduce new regulation in order to increase competition at main airports, were the United States, due to “the slot availability inhibiting competition” (Guardian, 1998). JFK, La Guardia, Chicago O’Hare, Washington National airport were asked by the DoT to release slots or open up new slots to expanding carriers, by doing it openly and transparently to carriers, i.e. no hidden deals, exchange of money under the table and so on. The interesting aspect of the new regulation is that carriers cannot hold on to slots in order to prevent competitors from purchasing them (Guardian, 1998; FAA, 1999). For example, slots that are not used for more than 65% of any two-month period have to be returned to the FAA (FAA, 1999).

The European Union is looking into the possibility of following the American example and whether to allow airlines to sell take-off and landing slots at airports in Europe (The Air Bulletin, 1998).
The aim according to the same article is to “facilitate the transfer of slots and introduce more flexibility, making them available to the airlines using them most efficiently” (The Air Bulletin, 1998).

However, the new proposed regulations do not look at the main slots or “premium slots”, but focus on secondary trading slots, which means “airlines would be able to lease out slots they receive from airport authorities” (The Air Bulletin, 1998). In other words, major airlines could still make life difficult for new entrants by buying or leasing out these slots to their “friend airlines”. However, the way slots are allocated to carriers will not change, this means that without an “utilisation plan” an airline will not be able to receive a slot (The Air Bulletin, 1998). Even if new regulations are in place to restrict trading off slots or receiving slots, slots will still be granted to an airline for the sole purpose of offering it for lease to another carrier (industry sources).

3.4.2 Advantage airlines can derive from airports

As mentioned above, some airlines throughout the world may have a certain bargaining power with airports and government. These “lucky” carriers are the ones who have main hubs at main airports, the ones who still receive support from their government, which draws up laws that favour national flag carriers, the ones, who have an important fleet size, flight frequency and high staff level.

The bargaining power for some of these airlines can be seen as anti-competitive by the new entrants or already existing competitors, which see such “favouritism” as barriers of expansion. Although an exhaustive list cannot be compiled due to the confidentiality of agreements between airlines and airports, listed below are some of the areas where powerful airlines have leverage with airports:

- Landing charges
- Take-Off charges
- Passengers charges e.g. international and domestic traffic
• Parking charges
• Aircraft handling charges e.g. supply of fuels and lubricants, needed energy supply such as electricity and air conditioning when the plane is on the tarmac
• Cargo charges
• Hire of counters and office
• Slots allocation
• Terminal navigation
• Security fee
• Pushback
• Passenger handling
• Special assistance, Bus
• Cleaning

According to industry sources and a report published by the European Commission (1999), the way some airports in Europe set up landing and take-off charges are unlawful and anti-competitive. In fact, some European government and airport authorities have come under heavy criticism after an investigation from the European Union, such as the Portuguese and Finnish governments.

As it is made clear in Eurobusiness (1999):

Article 86 of the EC Treaty prohibits airport authorities from discriminating between different airlines as regards equivalent services, without any objective justification. Aircraft handling services are identical, regardless of whether the aircraft is the first or the hundredth flight by a particular airline and irrespective of the airport of origin, be it another Portuguese or Finnish airport in any other Member state.
In fact, Portugal and Finland offer discounts and differentiate landing charges linked to the origin of flights at the airports of Lisbon, Oporto and Faro, and for the latter of Helsinki, Vaasa, Turku, Pori and Tampere (Eurobusiness, 1999). Up to 1999 Finnish airports offered a 60% discount on intra domestic flights, whereas no discount was offered on intra-Community flights. According to the paper published by the European Commission no apparent reasons were given to them for such a discrepancy. A possible reason for the difference in terms of charges could be seen in the lack of competition on domestic routes and favoritism to encourage the national flag carrier to fly these routes and maintain an adequate and profitable service for the carrier.

In Portugal, the European Commission was concerned about the charges levied for services. These services are the maintenance and operation of runways and approach control (Eurobusiness, 1999). The airport authority offers a 50% discount on landing charges for domestic flights compared with intra-Community services and a discount on the number of monthly landing, from 7% to 32% (Eurobusiness, 1999). The same reasons such a policy can be seen in the lack of domestic competition on routes and the importance of the national flag carrier in Portugal and Finland.

These two cases are not the only ones in Europe. In fact, other airports have been investigated regarding the discounts and differentiation of landing charges and handling services. These airports are Frankfurt, Paris Charles De Gaulles, London Heathrow, London Gatwick, and Brussels-Zaventem airport, to name a few. However, even if according to the European Commission the differentiation of landing charges and handling services should be completely dismantled, only some of the charges have been harmonised. This means that airlines still have a bargaining power that is non-negligible while entering into contractual talks with airports.

Ground handling is another important bargaining power for well-established carriers such as British Airways, Lufthansa, Air France, American Airlines may have with airports.
As mentioned in Chapter I and earlier in this chapter, ground handling includes an array of services necessary to maintain and operate the airline, such as fuelling, air conditioning, ground power, baggage handling, communications access, towing, catering, minor maintenance and so on.

Ground handling does not represent “an absolute constraint as the one of obtaining slots in sufficient quantities at the right time at congested airport” (Bass, 1994). However, it may impede competition from developing by obtaining the service at costs that cannot be matched by competitors, according to industry sources such as FAA, AEA, Air Bulletin, ATW. In fact, by obtaining special conditions such as handling some of the above functions themselves or paying less than the asked priced by the airport, the carriers are pushing new entrants away.

This is mainly due to the lack of power such entrants have to negotiate the same deal as the well-established airlines and also the lack of third parties or competition to handle them. Also, it is possible that airport contractors may increase the asking price due to the discount offered to the other airlines. In many cases, airlines depend on their competitors to handle them and if the service is not provided by the competitors, it is provided by the airport itself who has the monopoly on services (Bass, 1994).

However, since 1998 in Europe “Open handling deregulation” has been introduced. This new anti-monopoly law, should offer opportunities to third parties e.g. Servisair, Ogden Aviation, Gate Gourmet, Canonica, Jet Aviation, SAS and the airlines themselves to offer their services to other airlines at a competitive price (ATW, 1998). It should in turn favour the arrival of new entrants and offer competitive service rates that some of the airport operators would or could not offer.

However, airports still have the upper hand in negotiating with airlines to some extend, especially the ones that use their airports as a hub. Airports are to a large extent “natural monopolies. As start or end points of a journey, one airport normally cannot be substituted for another” according to the AEA (1998).
However, according to the same source, even if major hub airports “claim to compete with each other for connecting traffic” it is in fact the airlines who are realistically competing through their hub-based networks (AEA, 1998). Therefore, to ensure that those airlines continue the intense use of their facilities, airports have to charge competitive prices “regardless of the level of fees imposed upon them” (AEA, 1998) and perhaps make use of favouritism towards some carriers.

Some examples of favouritism or advantages a well-established carrier may have can be seen in the way some of the services offered to airlines are distributed or dealt between airports and airlines.

In fact, airlines expect to be offered a certain quality of service from the airports, however, these airlines may be asked to pay for a package that they do not want or need. Therefore, well-established airlines have a competitive advantage that is non-negligible when dealing with the airport authority. They can strike a balance between the frequency of flights to the airport, the number of facilities they use and the number of employees that work on site. Also, the economic return they bring to the airport, the money they have invested in building a new terminal or refurbishing it and so on, is another strength a carrier may have, when negotiating a package deal that includes all the services normally offered by an airport.

Some of these services include, pushback, security, workstation, lounge room, airbridge terminal aviation, passenger handling, aircraft parking, cleaning, ramp handling and transfer passenger charges to name some. All this is to the detriment of smaller carriers or medium sized carriers that do not have the negotiation power of the well-established carriers. In other words, those airlines will be paying more for the use of the facilities mentioned above and earlier in this chapter. This shows that in a competitive environment such as the airline industry, it is the market that determines the price or in other words the power of persuasion that well-established carriers have, not the “local circumstances” (AEA, 1998).
This means, that priority would be given to the main airlines that have huge potential, rather than to medium size carriers, even if those medium size or small carriers have been using the facilities for a long time. On the one hand airports would offer a full package to main airlines that include aeronautical charges and ground handling, while on the other hand airports may charge medium to small carriers individually for the same services or facilities (AEA, 1998).

All the above facts are known by the industry, even by the bodies that regulate the industry, however, it has never been confirmed or denied by airports and airlines. This is due to the confidentiality of such information or agreements between airports and carriers.

At some airports, carriers are required to purchase a bundle of services, including some they do not need. This can raise the price of entry and unduly hinder the ability of a low-fare carrier to compete (FAA, 1999).

However, due to my experience working for an airline, and the contact made during that time with airline managers, and to some extend past research on the airline industry, it can be confirmed that deals are effectively struck between airports and airlines. This is done in order to determine how much money they should be charged for the use of the facilities offered by airport.

To strengthen my arguments, the way slot deals have been made available to airlines has never been confirmed or denied, but as I have already mentioned in this chapter, it is a known fact that carriers have in the past and still do pay good money for the purchase of slots at airports. Furthermore, the competitive advantage of well-established airlines and the strength some of those airlines have on airports can also be seen at the terminal level.
According to industry sources (Travel Weekly, 2000), airlines can bring down their costs further by leasing terminal facilities, as did Swissair, Sabena and TAP, by leasing Terminal 4 at JFK airport. The lease includes the sharing of facilities such as check-in, baggage, ticketing and so on. The knock down effect on the competition may occur on the possible discount these airlines may derive from their collaboration and their already well-established hub in Europe, where similar agreements are in place. Swissair, Sabena and TAP will operate seven daily flights from JFK terminal 4. Swissair is expected to operate three daily flights between New York and Zurich in Switzerland, and one from New York to Geneva.

TAP has a daily flight from New York to Lisbon, Portugal and Sabena have flights between Brussels and New York and are set to add a second flight (Travel Weekly, 2000). All this, of course, refers to the situation before the financial problems later experienced by Sabena and Swissair.

Another example of possible collaboration between airports and airlines can be seen in the agreement between British Airways and BAA JFK inc., NB BAA are the owners of Heathrow, Gatwick, Manchester and Stanstead airports. British Airways has agreed with BAA JFK Inc. the development, leasing and management of retail facilities at the airline’s Terminal 7 at JFK airport (BAA, 2000). BAA will develop 25,000 square feet of space for retail, catering and general customer facilities, as part of British Airways $200 million renovation of the terminal (BAA, 2000). The expected results of such an agreement could be a way for British Airways to increase its commercial revenue, improve their customer service facilities e.g. restaurant, shops, BA products and so on, and decrease their operating costs, such as passenger transfer, passenger loads etc. However, this type of agreement may have some repercussions, when negotiating future package deals at other airports owned and run by the BAA plc.

Therefore in order to ensure fair competition amongst carriers that use hub-based networks and the ones that do not, new laws and deregulation such as the liberalisation of the industry and the implementation of anti-monopolistic laws, are implemented.
Airports are gradually forced to change their attitude and rethink their commercial strategy. In other words, increase their non-aeronautical revenue and encourage new entrants to use their facilities, in offering slots that are suitable and financially viable to them and that do not put at risk the ones used by existing airlines. Also, encourage well-established airlines to increase their flight frequency and offer better financial terms, terminal facilities or to build new terminals, i.e. joint-funding for the exclusive use of one of the main carriers e.g. British Airways at Heathrow airport.

Even if most European Union countries have already implemented the new deregulation e.g. third parties to handle ground service at airports, same landing and take-off charges, it will take time before it come to fruition (ATW, 1998). In fact, Europe is made of more than 15 countries, which means more than 15 different aviation cultures and each of those cultures have a different timetable to implement the new deregulation (ATW, 1998, Eurobusiness, 1999).

In other words, the full implementation might take 5 to 10 years, and in terms of the airline industry many things can happen in that time such as the merger of airlines e.g. British Airways and KLM, a deal which came close in September 2000. Furthermore, there is likely to be the completion of airline industry globalisation, the disappearance of some of the low-cost airlines, and further concentration in the industry and so on.

In addition to this, factors such as the lack of separation between the different deciding bodies e.g. governments and scheduling committees, and the airlines that compete for the same slots and the right of self-handling, may slow the process of the opening of better available slots or cheap self-handling. In fact, the airlines that belong to the scheduling committee can have an influence on their government and may cause problems to new entrants or well-established carriers wanting to come and take out some of the routes or the advantages those airlines may have.
The purpose of this chapter has been to make the reader understand the importance of airports and airlines in the world economy and the bargaining power some powerful airlines may have with airports, often with the cooperation of their respective governments. In other words, it shows that powerful airlines violate the norms of perfect market competition, with the tacit cooperation of the airports and the governments that tend to favour to some extent well-established airlines rather than new comers.
Chapter IV

4.0 Mergers and acquisitions

Merger mania is “ruffling the airline industry once again after a 1980s consolidation trend that reshaped the US air transport” (Ott and Fiorino, 2000), and 1993 and 1997 open skies European airline deregulation (Eurobusiness, 1999). There is a real prospect that the number of airlines will be reduced and it is raising concern among consumers, regulatory bodies and government agencies. In fact, for the last few years “the airline industry had to respond to the challenges presented to them by governments in terms of deregulation of market and competition” (Eurobusiness, 1999). These changes or challenges in the industry have made it essential for most airlines to seek growth and to secure their presence in a larger market, particularly in the USA and Europe but also throughout the rest of the world.

According to industry sources and a book written by Pat Hanlon (1996) “deregulation first appeared to encourage a lot of new entry, but later a wave of mergers and acquisitions left the industry somewhat more concentrated than it was before” (Hanlon, 1996), in 1980s America and later on, in Europe. Also, deregulation “has triggered a wave of co-operative arrangements or alliances between airlines” (Europa, 1999; IATA, 1998/99, AEA, 1998/99). These “arrangements” are mainly designed to achieve fleet rationalisation, expansion of route networks, economy of scale and reduction of costs through joint marketing agreements and joint purchasing, to name some of the advantages of an alliance.

However, according to industry sources, these waves of co-operation have in some cases resulted in cross border acquisition, or acquisition of minority stakes in other airlines. These could in the long turn become majority stakes and be absorbed by one of the main carriers. However, foreign ownership of airlines is severely restricted.
In fact, due to tough regulation or mergers in the USA and Europe (where foreign ownership is limited to 25% for the USA and 49.9% in Europe), the main airlines have had to find other ways to increase their route network. These have included (sometimes cross border) acquisitions of small regional carriers or small airlines. For example, in European airlines such as Air France, British Airways, Swissair, KLM acquired small carriers e.g. DBA, TAT for British Airways, Air UK for KLM, Crossair for Swissair (before its bankruptcy in October 2001). Such acquisitions and also alliances enable airlines to obtain “the efficiencies and benefits normally linked with mergers” (Europa, 1999). In other words a strategic alliance among two powerful carriers e.g. American Airlines and British Airways, could be seen as stealth merger or virtual merger, which includes all the advantages of a merger, but allows airlines to keep their identity and not lose their slot rights at the major airports.

The effect of market deregulation and competition has been more intense in Europe, than in the USA due to the ownership of flag carriers by governments. “European airlines had to adjust to the new competitive environment and deal with the pressure of the US open skies strategies” (Eurobusiness, 1999). In other words, to stay globally competitive European carriers had and still are developing innovative strategies. Furthermore, airlines have in the past few years changed their way of dealing with the environment in which they compete and these innovative strategies have helped them to make improvements in productivity and to generate jobs (Eurobusiness, 1999; Europa, 1999; other industry sources). Also, competitive pressure has brought down fares, which has enabled consumers “to enjoy on average fare reductions between 10 and 24% on the type of fare” (Eurobusiness, 1999; AEA, 1998/99).

The pressure of market liberalisation and the path some airlines have undertaken towards globalisation has forced most of the airlines to restructure (AEA, 1997; IATA, 1997/98; and other industry sources). As mentioned in Chapter I some of them had to rely on government aid, others where privatised and some where acquired and incorporated into the structure of a bigger carrier e.g. British Airways and British Caledonian.
However, major cross border mergers (which means one carrier from one country merging with another one from another country) are yet to happen. This is mainly due to complex regulatory hurdles among governments in Europe, North America and throughout some parts of the world e.g. Asia, South America. In fact, it seems that until the above governments and particularly Europe and the USA, put aside “the rest of economic regulation such as restriction of foreign ownership of airlines”, then it will be possible to see cross border ownership, for example British Airways merging with KLM (Ott and Fiorino, 2000; Eurobusiness, 1999).

It may seem strange to see governments retaining regulation and law in order to avoid foreign ownership of an airline, but if you take into account that one of the key features of the airline industry (as mentioned in Chapter I and above) is the strong bond with national identity, it might become clearer. According to the industry literature and sources such as Air Transport World, Europa, Eurobusiness, ICAO, Flight International, The Washington Post, The Financial Time, and ATAG, most airline companies are known by the name of the country they are owned by. Therefore this prevents the industry evolving in the same way as other service industries e.g. telecommunication and banking. In fact, according to the same sources mentioned above, it is common to see firms in other industries merging with or being taken over by foreign companies, without seeing this as detrimental to the national pride or interest. However, if the same thing happened with a well-established carrier, it would raise concern and outcry, first to the possible loss of the name and secondly to the loss of the national flag carrier. The example of British Airways losing the British flag on the tail of their planes (as mentioned in Chapter I) is a good example of what could happen.

“Merger mania” as Ott and Fiorino (2000) termed it, is not only affecting the US air transport industry but it is also affecting the European airline industry and it is spreading throughout the world. This shows how far the airline industry worldwide has come. In fact, the past 20 years many airlines outside the USA were state owned, particularly in Europe (Ott and Fiorino, 2000).
As mentioned in Chapter I each country had their own flag carrier and that was and still is a source of national pride and potential commercial advantage. However, since the US industry deregulation and the European airline industry deregulation in the 1990s (which resulted in the privatisation of some of the main carriers in Europe, followed by the 1997 open skies), the industry is going towards possible consolidation in the long term (Ott and Fiorino, 2000, ATW, 1999; ICAO, 1999).

To emphasise the above statement, the 1997 open skies which allows any airline e.g. member of the European Union to fly into and within any EU (IATA, 1997; AEA, 1998/99, ICAO, 1998; other industry sources) may make it clearer to the reader the possibility of consolidation in the industry in the future. In fact, according to industry sources, there is an important risk in seeing an increase in acquisition and possible mergers among main carriers in Europe and also in the North American market. The risk of market consolidation, or in other words mergers in North America and Europe in particular, is real, “if laws and regulation are lifted in order to allow foreign ownership of airlines” (Ott and Fiorino, 2000).

However, to avoid the risk of consolidation of the market and to see a monopoly on certain routes, governments throughout the world have the alternative of lifting cabotage restrictions (Eurobusiness, 1999). The cabotage right is defined as the right of a foreign company to operate in another country’s domestic market place (IATA, 1998; AEA, 1999). In fact, by lifting the ban on new entrants or foreign companies flying internal or domestic routes, there is the possibility that this will slow the consolidation process (according to industry sources: Eurobusiness, 1999; Gawiicki, 2000).

However, according to Michael McGhee, director of the European transport group at Credit Suisse First Boston “airlines are not going to wait for the rules to change” (Gawiicki, 2000). This means that carriers will be looking at possible synergies with other carriers, in order to increase their route networks.
Also, airlines will try to find loophole in regulations that will give them the possibility to act as if their already existing or future joint ventures are as effective and efficient as if their activities were merged.

In other words, strategic alliances that include a marketing agreement, code sharing and share of facilities, could become merger by stealth. According to industry sources, even if cross border mergers among well-established airlines are not likely to happen as yet, mainly due to political and regulation hurdles (Gawiicki, 2000), "1999 was worth $6.8 billion of global airline merger and acquisition transaction" according to Thomson Financial Securities Data (Gawiicki, 2000). The above figure includes the purchase of small carriers by main airlines or well-established medium size carriers, the acquisition of stakes in other airlines such as Singapore Airlines buy of 49% of Virgin Atlantic, or minority stakes in other airlines.

4.1 Industry consolidation through mergers and acquisition

According to the ICAO, several major airline consolidations were reported at national and international level (ICAO, 1998). According to the same source, the trend towards consolidation of market is increasing dramatically, even though regulations are brought up in order to avoid market monopoly. Some examples of airline consolidation can be seen in China/Asia, USA, Europe and South America. According to industry literature and different sources such as Air Transport World, Flight International, IATA, ICAO, Financial Times, AEA to give some examples, the world airline industry is going towards a consolidation process and the possible formation of four to six big carriers. This can be seen by the different acquisition, mergers, stakes or shares purchase described below and taken from the above lists of industry literature.
In China, Eastern Airlines took over China General Aviation in accordance with the Chinese government policy to rationalise the industry structure. In Europe Air France and Air France Europe (formerly Air Inter), have merged together to operate as a single carrier. In Lithuania, a merger agreement was reached between the country’s two carriers Lithuanian Airlines and Air Lithuania. Swedish domestic carrier Skyways took over regional commuter Highland Air.

Sabena acquired 15% in a Belgium regional airline, City Bird, though Sabena eventually went bankrupt in late 2001 in the wake of the 11 September attack. Iberia the Spanish national carrier, took full control of Aviaco the Spanish domestic carrier by buying up the remaining 67% stake. Russian domestic carrier Vnkovo Airlines concluded a merger agreement with a charter carrier Orel-Avia and AO Vladivostok-Avia, and agreed to merge with Shaklin Airlines to form Far East airlines. British Airways completed the purchase of the airline City Flyer and merged it in its activities, and Swissair acquired from British Airways Air Liberty in order to strengthen its position in the French domestic market.

In the USA, Northwest acquired regional carrier Express Airlines. American Airlines reached an agreement to buy Shuttle Inc from US Airways. Pan Am (formerly Pan Am international) resurrected itself from the ashes a few years ago, flying only domestic routes completed its acquisition of Miami based Carnival Airlines, and Value Jet Airline merged with Airways to form Air Trans. Canada saw the merger between the two main airlines Air Canada and Canadian International, and the acquisition of CanAir cargo by the charter airline Royal Aviation. In South America, Lan Chile acquired 99.5% of another major carrier Ladeco. Other reported mergers and takeovers have involved either a relatively small or regional air carrier or both according to the ICAO report (1998) and other industry sources.

The above list of mergers and acquisitions in the past few years is not exhaustive, but it may give a pretty good idea of a possible situation that could occur in the next few years.
Also, it shows that mergers among airlines do not involve foreign carriers (but solely national carriers), due to the strict regulation of foreign ownership, and that cross border acquisition does not involve main carriers but small to medium regional or short haul carriers.

There is a trend in the world airline industry towards partial ownership of foreign airlines (ICAO, 1998). This is mainly due to the regulations explained above which do not allow the full ownership of a national carrier or cross border merger.

However, regulations on foreign ownership are changing, some countries are becoming more flexible and others are implementing tougher laws. In Brazil, the government increased the right to invest by foreign carriers in its national carrier or regional carriers from 20% up to 49.5%, and in Peru the government allows such ownership up to 70% (ICAO, 1998). Others such as the Indian government adopt a policy that restrains foreign investment in their national flag carriers. The cap put by the Indian government is that of a 40% stake (ICAO, 1998). According to industry sources and reports, the Russian government introduced rules that do not allow foreign majority ownership in joint-venture airlines (ICAO, 1998).

Even with tough to some extent, more flexible regulations, airlines throughout the world still continue to invest in equity or stakes in foreign carriers (ICAO, 1998; IATA, 1999; ATW, 1999). The reason for doing so can be seen as part of their strategy to enter new markets and increase their market shares. Also, investing in equity or stakes in other airlines, is a way to forge new alliances or strengthen their already existing alliances with fresh blood or change of allies due to changing economic situations and possibly to new regulation of ownership. However, as the industry literature indicates, not until governments, national pride, politicians and bilateral agreements are sorted out will the industry see a merger between the two main foreign carriers.
Therefore, the only way forward for the time being (as mentioned above) is to invest or de-invest in equity or stakes in other airlines, in order to comply with the regulations in ownership. Also it is a way to look at the best possible manner to increase market shares without having the risk of being under scrutiny by the relevant regulatory bodies such as the European commission, the Department of Trade and Industry and the DoT, to name three.

Some examples taken from the industry literature such as ATW, IATA, AEA, Financial Times, The Washington Post, ATAG, industry reports and so on, may give an idea where the industry is going or how it is shaping up in terms of partnership or ownership of stakes and shares.

British Airways increased its shareholding in Deutsche BA from 49% to 65%, but got rid of its partnership with USAir, (formerly USAirways), selling its 25% stakes. KLM acquired a 30% in Norwegian regional airline Braathens SAFE. Also, Swissair cargo purchased 24.5% in stake in Cargolux owned by Lufthansa cargo, while Crossair, which took over Swissair following the 11th of September attack, acquired up to a 35% stake in the French regional carrier Europe Continental Airways. Lufthansa acquired a 13.2% in French carrier Air Littoral, but reduced its shareholding in Lauda Air from 39.7% to 20%. Iberia sold a 38% in Chilean carrier Ladeco to LanChile as well as a 10% stake in Aerolineas Argentinas to American Airlines, which is a member of the Oneworld alliance with British Airways and Iberia. Alitalia sold its 35% shareholding in Malev back to Hungarian interest. Continental reached an agreement with CINTRA the holding company for Aeromexico, Mexicana and AeropPeru, to take a 30% in the Peruvian carrier. Northwest reached an agreement, with KLM to buy back in several stages the 19% stake owned by KLM, but still continues their successful partnership.

All these examples show how the industry is moving on and how the rules and regulation are applied or used by the carriers in order to spread their wings in as many markets as possible.
However, according to the industry literature and my understanding behind each investment in stakes, shares, and strategic alliances, there is a strategy that is thought and implemented in order to foresee new changes in regulation and further growth, especially when airline alliances deal are struck.

In fact, as has been suggested in past research (and discussed in the following chapter (V)), the following factors have been the main drivers behind the airline alliances, the past decade in the airline industry:

- Mergers and acquisitions in general have been tightly controlled in the airline industry
- Foreign ownership in airlines has been restricted by governments
- Bilateral agreements between countries make foreign ownership of airlines problematic
- Bilateral agreements have been a way of protecting markets

But as it appears, the main aim for the airlines, particularly the well-established carrier is to get hold of as many markets as possible, through whatever means possible (according to general industry sources and past research). This is in order to be able to compete on the global airline market through strategic alliances, acquisitions and holding of stakes or shares in other carriers. The result of such ways of thinking is that in the near future there is a real risk of seeing some medium size or regional carriers becoming part of one of the well-established airlines and used mainly as feeder for their hubs and long-haul routes. The risk of market concentration on intra-domestic market in regions such as Europe, North America, Asia/Oceania e.g. Japan, and China, Australia and New-Zealand, is real and has already occurred on some routes in Europe and North America.
To sum up, here is a summary of some of the possible cause of mergers and acquisitions in the airline industry that may drive the airline industry towards concentration. Most of the points below have been described by the industry literature such as the Air Transport World, AEA, IATA, Flight International, Journal of Air Transportation Worldwide, ICOA, DoT, FAA and so on. However this list is not exhaustive and definitive and does not have to be taken as such:

- Regulatory changes such as the deregulation and liberalisation of markets throughout the world, but particularly in North American and Europe.
- Regulatory hurdles such as bilateral agreements amongst European countries and the USA or USA and Japan etc.
- Increase of competition on domestic and international routes with the emergence of low-cost and no-frill airlines.
- Increase of efficiency with cost reductions, in order to maximise yield per flight.
- Restructuring of main carriers or national flag carriers, which in turn will have to start diversifying their offer by acquiring regional carriers or start up airlines in order to stay competitive, and use them as feeder for their long-haul destinations.
- The possibility is of four to six large oligopolies such as the Star Alliance or One World alliances. It may become of great importance and vital for airlines throughout the world to be included in one of these main groups in the future, through code-sharing, marketing agreements, alliances, franchises, stakes or shares ownership. In fact, most of the literature on the airline industry agrees with the fact that “no one airline can offer all destinations.”
- Information technology is another factor that may contribute to mergers, acquisition and concentration in the airline industry. The introduction of ticketless travel, internet booking and ticket purchase, means “bypassing the Computer Reservation System and travel agent” (IATA, 1998; AEA, 1999; Eurobusiness, 1999), as well as the formation of one or two main e-businesses among the main airlines throughout the world such as British Airways, Swissair, Iberia, Air France, Singapore Airlines, Cathay Pacific, Japan Airlines (JAL).
Changes in government regulation have a great importance in promoting mergers. For example, according to the BBC news website, "the emergence of the single currency and the relaxation of controls on banking in the US have led to a wave of mergers in that sector". "The on-going liberalisation of the telecom market, both in the USA and Europe, has led to the search for global telecom alliances and the heavy investment needed in new technology, for example fiber-optic cables, has encouraged companies like AT&T and TCI to come together". Therefore change in ownership regulation in the airline industry could trigger the same effects as in seen in the banking or telecommunication industry.

The loosening up of regulations can already be seen in some countries, to the point that in the not too distant future, we may see a cross border merger among two main European carriers in Europe such as British Airways and KLM. Also, there is a possibility in the not too distant future to see a "big" merger among two main carriers from the same country such as United Airlines and US Airways (formerly US Air in the USA).

The first step towards cross border merger in Europe can be seen with the former Swissair/Sabena type of merger. Swissair initially had 49.5% of stakes in the company, but since 2000 they have become the majority partner with the Belgium government selling its majority stakes in Sabena to Swissair group. In return the Swissair group had to offer to the Belgium a minority stake in the Swissair holding with a seat in the executive board.

Also, the first type of national merger among two big carriers in the 21\textsuperscript{st} century (at the time of writing this chapter) has been already completed in Canada. In fact, Canadian International and Air Canada merged their activities, with Air Canada becoming the main carrier in Canada, after having fought off a takeover from a foreign company Onex Corp, partner of American Airlines (industry sources).
Had the deal gone through it would have been a big blow to the Star Alliance groupment, to which Air Canada belongs to (ATW, 1999; Flight International, 1999; Financial Time, 1999; and other industry sources). It seems that the Canadian government and financial institutions may have favoured the Air Canada bid in order to prevent foreign ownership of Canadian airways.

Until bilateral agreements are sorted out, political tangle are resolved, and the public perception of foreign ownership of a national flag carrier or main carrier is improved, and better services offered, we will not see cross-border mergers in the worldwide airline industry, particularly in the USA and Europe.

4.2 Effect of merger and acquisition in the world airline market

According to industry sources, changes in the airline industry in the past 20 years have made it essential for most airlines to seek growth and to secure their presence in larger markets. Also, deregulation has changed the rules of competition drastically in most major markets throughout the world, but particularly in the North American and European markets.

Therefore, the need for airlines to reduce operational costs through better utilisation of their resources and strategies such as strategic alliances, marketing agreements, purchase of shares, stakes or the buying of regional or start up carriers, has become vital. In other words, the above factors have become of great importance in order to stay competitive in one of the most “volatile” and “fierce” industries, particularly, while governments seem not to accept the fact “that the natural evolution of the airline industry is toward transnational companies” (Seristo, 1999).

Since the deregulation of the airline industry in the USA in the late 1970s, and late 1980s beginning 1990s and 1997 Open Skies agreement in Europe, the competition has become tougher and more deadly for some airlines.
Following the US and European deregulation, "airlines moved to consolidate their position, by share or stake purchase of and alliances and franchising with smaller airlines" (Morrell, 1998). In addition to the consolidation of their market, airlines tended to strengthen their airport hubs through better flight connections, alliances and code-sharing agreements, according to the industry literature. In other words, by increasing the number of flight at their hubs, airlines could "increase their competitive position in long-haul markets" (Morrell, 1998) and repulse new entrants.

This practice has allowed the dominance of some airlines on certain routes and because of the open sky agreements and bilateral agreements amongst different countries throughout the world it makes the industry even fiercer due to the increasingly global stand that carriers are taking. According to industry sources e.g. Air Transport World, The Economist, Flight Business, ATAG, ICAO, The Washington Post, Houston Chronicle and so on, the airline industry seemed to go toward market concentration and the appearance of "oligopolies of four to six airlines" around the world.

According to the same sources, there is a real possibility that we will see the first cross border merger of two main carriers in Europe and two main national carriers in the USA. The consequence of such mergers if accepted would change the face of the airline industry as it is now. In fact, the prediction made by some industry analyst would become true leading to, for example, "concentration of the airline industry, mergers among national and international carriers, disappearance of small or medium carriers, strengthening of strategic alliances such as the Oneworld or Star Alliance and possible increase of air fare tickets on some routes, where competition is lacking".

However, as mentioned in the previous chapter, until governments and politicians change regulation on foreign ownership, and bilateral agreements are sorted out or renegotiated, it is unlikely to happen.
On the other hand, the strengthening of the home market with mergers or cross border mergers amongst small to medium carriers, is a possibility that is likely to happen in countries such as the USA, Japan, Australia, and Europe (according to industry sources).

It has already been happening in the last few years, for example, Air France who absorbed Air France Europe in its structure, British Airways who merged the activities of City Flier, and KLM with Martinair (still awaiting the go ahead from the European Union at the time of writing) to name three.

This shows that one of the key roles in the airline industry is played by governments throughout the world (Seristo, 1998). According to the industry literature and Seristo (1998), governments seem to push for more intensive competition by deregulating the industry on the one hand. While on the other hand, they set limits on ownership or bring antitrust legislation, when well-established airlines “try to rationalise operations in the name of better competitiveness” (Seristo, 1998). Which in turn make mergers and acquisitions rare and almost impossible under current laws.

4.2.1 Consequences of possible mergers and acquisitions in the world airline industry

The U.S. airline industry is no stranger to consolidation, across the pond, mergers have made nary a dent in a market overcrowded with a dozen or more national carriers” (Reed, 2000).

The validity of the above statement may be about to change due to the possible merger(at time of writing) between British Airways and KLM. Furthermore, the industry throughout the world according to the industry literature e.g. ATW, Eurobusiness, is also about to see an increase in market concentration. In fact, according to the same sources, national, privatised and medium to small carriers are about to be taken over or proposed mergers to be put under scrutiny by other carriers and governments, especially in Europe and the USA as previously mentioned.
Effectively, due to the way regulations are applied between the USA and Europe in terms of ownership or foreign investment, there will be a need for thorough scrutiny from governments, whilst merger application are made in order to avoid market concentration on routes, airports and price monopoly.

As has been described previously, the regulations in terms of foreign ownership effectively prevent full mergers between airlines domiciled in different countries or amongst airlines from the same country.

Also, the bilateral agreements between the USA and some European countries, as well as open sky deals and competition rules that may hamper access to new entrants, do not allow merger amongst national or international carriers, particularly those who already have a huge market share.

However, if the go ahead is given to mergers involving well-established carriers, it will definitely change the face of the airline industry competition as it is perceived now all around the world. This statement is corroborated by industry sources such as ATW, Financial Time, Aviation Week, Flight International, Business Week, Air Transport Users Council and ATA.

As described above and in the industry literature, the US airline industry is no stranger to consolidation, and it seems that the US market may become even more concentrated in the near future. In fact, United Airlines and US Airways (formerly USAir) have agreed to a full merger on the 23rd May 2000 (Traffic World, 2000; ATW, 2000). The merger, if it has been given the go ahead by the American government, would be worth $12 billion. This could not only rock the American airline industry but according to industry literature the world airline industry due to the ramifications and consequences on other markets.
Effectively, if you take into account that United Airways is already the world’s largest airline (Traffic World, 2000) it would become even bigger and increase its market share on the domestic and international market (ATW, 2000; Oberstar, 2000; Traffic World, 2000).

In other words, by acquiring US Airways, “United Airlines would gain extensive East Coast route structure to feed its lucrative transatlantic and transcontinental flights” (Swoboda, 2000). It would also (as mentioned) increase its long-haul reach, particularly with the access right that US Airways has at London Gatwick airport. Also, as one of the principal members of the Star alliance, United Airlines (alongside Lufthansa) would open new markets to other members of the alliance. For example, better connections or take-off and landing slots at Heathrow airports, operation facilities such as check-in and ticketing. Therefore, it is possible to foresee the possible repercussion of such mergers not only in the USA or Europe, but also on the worldwide airline market.

If the merger of $4.3 billion purchase of USAir had been given the go ahead, the repercussion of the transaction in terms of size and potential impact, would have eclipsed any of the deals made in the merger wave of the 1980s (Aviation Week & Space Technology, 2000). For example, according to the same source, Frank Lorenzo in the 1980s folded five carriers into one to form a new carrier called Continental Airlines, which later became one of the 6 biggest carriers in the USA. However, due to tough regulation brought up by the DoT and Department of Justice, the merger between United Airlines and USAir would not be accepted as it is.

Therefore, both airlines have been looking at loopholes in the laws or at alternatives to facilitate the merger acceptance process.

According to Kraus (2000), in order to avoid a long investigation and jump the regulatory hurdle, such as slots and route network “a memorandum has been signed between R.L. Johnson a US Airways board member, who plans to buy US Airways slots a Reagan National airport and create a new airline” (Kraus, 2000).
The new carrier an offset of the mergers, would function as a feeder for United Airlines hubs and use the new carrier on their non-profitable routes, and operate from Reagan National Airport.

As already mentioned in this chapter, consolidation is not something new in the US airline market. However, what is new is that there is a strong possibility that a merger amongst the two main carriers might have been given the go ahead (according to industry sources: Reed, 2000; Kraus, 2000; Oberstar, 2000; Aviation Week and Space Technology, 2000).

In fact, according to industry sources in summer or autumn of 2001 there is a real possibility that we will see a “marriage” happening due to the lack of overlap in their route networks, the exception being the Washington area such as Reagan National airport. Therefore, the sale of the slots belonging to US Airways at Reagan National airport to R.L. Johnson and the subsequent set up of a new carrier called DC Air (which will be linked with the merger) should in theory not put the merger in jeopardy (Kraus, 2000). The result of such a merger could trigger a move from a United Airways competitor to start a spending spree on a similar scale (Aviation Week & Space Technology, 2000).

According to George Hamlin, senior vice president of Washington-based Global Aviation Associates and the Aviation Week & Space Technology (2000), “if the merger happens, it could be perceived as destabilising and touch off what would be the final consolidation to a Big Three”.

The U.S. airline industry is mainly ruled by what it is called in the U.S. airline literature the “Big Six or Seven”, which are United Airlines, US Airways, American Airlines, Delta Airways, Continental Airlines, Northwest and TWA (absorbed by American Airlines in 2001).
This means, that amongst the seven airlines above only three to four would survive, and the likeliest to survive are United Airlines, American Airlines, Delta and possibly Continental (Aviation Week & Space and Technology, 2000; other industry sources). According to the same source and others, the impact on the competition would be hard, in fact, if it comes down to three main airlines as some have suggested, there may be a tendency for the three carriers to cooperate. However, it is unlikely to happen for the time being due to regulation, competition and labour hurdles.

As the Economist (1999) mentioned “Until open skies are universal and limits on foreign ownership are relaxed, airlines will continue to live in the twilight world of shifting alliances rather than the clear day of global consolidation”.

The expected chain reaction of merger talk following the announcement of the agreement between US Airways (ranks 10th in the world and 6th in the US) and United Airlines, (ranked 1st in the world), has already started. American Airlines (ranked 2nd in the world), are in advanced talks with Northwest (5th ranked and 4th in the USA) and Continental, with a view to pursuing the merger of Northwest or Continental as well as TWA in its activity. If a merger deal is agreed between American Airlines and Northwest a partner of KLM for example, it would give American access to China and a presence in the Pacific Northwest (according to industry sources: Swoboda, 2000).

To sum up, a combined United/US Air and American/Northwest would become the world's two largest airlines, and if you add to this the possibility of the British Airways/KLM merger, the face of the world airline industry would change forever and alter the way airline passengers and the public perceive it.

Furthermore, the two deals would strengthen the Oneworld Alliance in which American Airline and British Airways are the main partners and the Star Alliance, which has United Airlines and Lufthansa as main partners in the alliance.
However, this will only happen if American Airlines/ British Airways and United Airlines/Lufthansa are still on the same length and have the desire to pursue their partnership in the Oneworld and Star alliances.

In fact, as mentioned above, due to the volatile industry airlines in which the airlines are competing, the change of partnership can occur quickly, due to regulation hurdles, competition hurdles, labour hurdles and bilateral agreements, particularly between the USA and Great Britain and also between the USA and Holland.

In addition to this, and as previously mentioned, British Airways in the summer of 2000 was in advanced talks about a possible merger with KLM which in turn is a partner to Northwest, the worlds oldest airline alliance.

A merger of American Airlines and Northwest and British Airways and KLM would create “an enormous international powerhouse, if they continue their alliances” (Swoboda, 2000). With its two hubs at Heathrow airport and Schipool airport British Airways/KLM and American Airline Airlines/Northwest at JFK and Chicago O’Hare both partners could control a very impressive percentage of the world air travel market. This dominance would show on transatlantic, panpacific, domestic flights in Europe and USA, and through the use of their link with the Oneworld alliance and majority stakes in medium/small carriers (Aviation Week and Space Technologies, 2000).

However, before any deals are investigated, approved and competition is kept fair, it might take some persuading and concession for those airlines to relinquish their profitable routes, unless someone comes with the right amount of money to buy back stakes and shares in other carriers or a bright idea.

For example, the set up of an airline call DC Air, an offset of the possible United Airlines/US Airways merger or KLM offering to scrap off its Buzz low cost carrier in order to facilitate the decisional process from the European commission (Ordell, 2000).
Another example is Northwest; they would have to relinquish the ownership of 14% stakes in Continental if the merger deal with American Airlines is given a chance to be approved (The Washington Post, 2000). Northwest has already found an interested buyer for its 14% share in Continental, in the form of Delta Airways (ATW, 2000).

Delta is in advanced negotiations with Northwest with the view of buying the shares and taking a seat on the executive board of Continental.

Another example mentioned previously in this chapter, is the first full merger of two national main carriers in the North American market. The effects of the take over of Canadian International by Air Canada have brought to life the fear industry analysts have dreaded for years, "market monopoly by a few airlines only". In fact, by merging they have created a near monopoly of the country’s airline industry. Air Canada is planning to run Canadian International as a subsidiary and use it mainly on domestic routes (Airwise bulletin, 1999).

The acquisition of Canadian International has given 80% of the Canadian market to Air Canada, and also additional routes to the USA, Europe and Asia (Airwise bulletin, 1999). In other words, even with the 20% left to the competition on domestic routes, the consolidation of the Canadian airline industry has occurred. Only a few carriers such as Royal Air Canada may have the financial power to compete against Air Canada and reverse the consolidation.

In Europe mergers and consolidation are terms that are not new, but have not affected the industry as it has affected the US airline industry more than 20 years ago according to industry sources such as ATW, AEA, IATA, The Economist, Journal of Air Transport Management. The consolidation and deregulation process has claimed well-known victim in the USA. Carriers such as Pan American, Eastern Airlines, TWA and Braniff Airways, to name the major ones, have disappeared.
Some of the most well known mergers in Europe that have occurred are BEA and BOAC forming British Airways in 1974. Air UK, created from the merger of Air Anglia, Air Wales, Air West and British Island Airways, which in turn was bought by KLM to form KLM UK. British Airways purchased British Caledonian in 1987 and incorporated it in its activity, but had to make concessions such as giving up slots at Heathrow and Gatwick airport to satisfy competition regulation. In fact, according to Hanlon (1996) and other industry sources “over half of the net revenue from scheduled services was earned on routes on which it was in competition with British Airways”.

In 1990, Air France acquired and merged its activity with UTA, and subsequently acquired a controlling interest (57%) in Air Inter, which was merged in Air France activity under the name of Air France Europe in 2000 (Hanlon, 1996; ATW, 1998/99; Air France website, 2000).

As can be seen the intensity and level of merger in Europe and in the USA is not comparable, but the “merger mania” that is wiping the North American airline industry, is picking up in Europe. This mainly because of talk of a merger between British Airways and KLM, two of the most important carriers in Europe and well-established carriers in terms of market share around the world, due to the myriad of code-sharing or strategic alliances with other well-known carriers. By merging their activities both airlines would create the third-biggest airline in the world (Reid, 2000), behind United Airlines and American Airlines (a partner of British Airways in the Oneworld alliance) and the first-ranked airline in terms of revenue more than $21 billion (Ordell, 2000). The reason for looking into a merger (according to industry sources), may be due to the flurry of discussion among their transatlantic competitors as mentioned above, and partners in the USA (Reid, 2000; ATW, 2000).

Also, the need for both carriers to expand and the risk of being left behind especially for KLM due to its size and fleet numbers is another reason for extensive talks regarding a possible merger between these two airlines.
According to industry sources and company reports, both companies have suffered declining profits and are implementing cost-cutting plans, in order to restore adequate financial results.

"The British Airways and KLM merger could reshape the European airline industry as well as global strategic alliances" (Sparaco, 2000).

The mergers between both carriers would make the new carrier the biggest employer for an airline with 98,000 employees, about 20 billion in annual revenues and a fleet of about 500 aircraft (Sparaco, 2000).

Also, according to industry sources the combined traffic for both carriers was about 56.5 million passengers in 1999 (BA report, 1999; KLM report, 1999; IATA, 1999; AEA, 1999). The route networks of both carriers "do not overlap significantly" (according to industry sources), except on routes from Stansted to Amsterdam and vice versa. However, the ramification of such a merger could affect the shape of the industry, but it will mainly affect competition.

In fact, British Airways owns Deutsche BA, Brymon Airways, City Flyer Express, has a stakes and shares in Quantas 25%, which could increase to 49% when the Australian government is ready to sell its majority in the carrier. Also, British Airways own 9% stake in Iberia and 18% in Comair, and used to have an important participation shares in Go low cost airline, but sold it in 2001 (British Airways company report, 1999, AEA, 1999). Furthermore, according to the same source, British Airways has a myriad of franchisee agreements in Europe, for example GB Airways, Maersk Air and Loganair. KLM owns a regional carrier called KLM Alps, Cityhopper, 80% Transavia Airlines, 50% of Martinair but could soon be approved by the European commission as the full owner, 30% of Braathens, 26% of Kenya Airways, and Buzz airline a spin off of KLM UK (KLM company report, 1999; AEA, 1999; other industry sources).
KLM has major partnerships with Eurowings, Maersk Airlines, and regional airlines. Also both carriers have a marketing agreement or operational partnership with other carriers throughout the world and are members of alliances, such as Oneworld for British Airways, and Wings for KLM that includes Northwest.

The consequences of such a merger can be understood just by looking at the already existing route network for both carriers and the ownership of carriers and stakes in other airlines. The potential risk of an oligopoly of the European airline as it may happen in the future, is real. To strengthen this statement, we just have to look at the possibility for both carriers to control slots at two key hubs such as Heathrow and Schipool airports.

According to industry sources and an article published in Brandweek (2000):

The part of British Airways and KLM deal that those two companies would probably like the best is the control a merged company would have over cherished landing slots a hub airports such as London’s Heathrow and Amsterdam’s Schipol.

Heathrow has been for years the main transatlantic gateway to Europe, and the world’s busiest in terms of number of passengers (ACI, 1999; AEA, 1999; Brandweek, 2000). Schipool airport is one of the most efficient transit centres in Europe according to industry sources such as e.g ATW, ACI, and AEA. Its air, rail and highway connections to destinations all over Europe make it one of the easiest airports to use and also one of the most important gateways or ports of entry for US travellers (Brandweek, 2000; Schipool company report, 1999).

So, if you combine both carriers and their dominance at both airports, this may come to a situation where just two airlines are controlling the two leading transatlantic gateways. In addition to this, both carriers in Europe have a strong market dominance and together with their subsidiaries or medium and small carriers owned by them, they would further increase their dominance over the two hubs.
In other words, using these airlines as feeders for their transatlantic or Asian routes, and to some extend restricting “fair” competition or pushing the European airline industry towards concentration or possibly the formation of an oligopoly of four to five airlines as it is forecasted in the USA. For example, British Airways could redirect its low-yield routes in Scotland to Amsterdam or the North of England traffic through Amsterdam and make more efficient use of their high-yield passengers through Heathrow airport (Sparaco, 2000).

By doing this, British Airways would free landing slots and taking off slots for their long-haul or intra-European flights and in the same time find a solution to its capacity shortage at Heathrow airport. The capacity shortage is mainly due to the lack of space and delay in Terminal 5 construction process and lack of an additional runway.

Also, it would make the possible merger more friendly or acceptable to the European Commission and Dutch and English governments, as shown by United Airlines and US Air with the sale of slots at Reagan National Airport.

However, the merger will not be given the go ahead unless concessions are made in order to facilitate fair competition and respect of rules and regulations that were brought up by the European Commission in order to avoid a market monopoly by only a few airlines.

In the mean time, British Airways in 1999 was given the go ahead by the Department of Trade and Industry to acquire City Flyer Express, “subject to British Airways limiting its holding of take-off and landing slots at Gatwick airport” (DTI, 1999). This was in order to limit the adverse effect on competition as identified by the Competition Commission in their report on British Airways’ proposed merger with City Flyer. However, an adverse effect may happen if these figures are correct. British Airways provides air services to some 167 destinations in 87 countries (DTI, 1999; BA company report, 1999; AEA, 1999; and other industry sources).
Its major operations are at London Heathrow, with long haul, short haul services connecting at the airport or as it is known, at the main hub. Due to capacity shortage or increasing congestion at Heathrow airport, British Airways developed a second hub at Gatwick airport in 1990.

According to a report on the proposed acquisition or merger of City Flyer by British Airways published by the DTI (1999), the second hub is used mainly by franchised carriers who operate British Airways routes under a license agreement.

In other words, City Flyer started as the first British Airways franchisee in 1993. It started with 12 destinations in the UK, Channel Island and continental Europe. All the operating flights are painted in the franchiser colour and staff wear the same uniform as British Airways. According to the same source and BAA company report, “City Flyer is the second largest airline operation at Gatwick and also the second largest holding of take off and landing slots.

This shows, that even if British Airways hands out slots to competition or new entrants, the first carrier in England would not lose its stronghold on take off or landing slots at the airport. The consequence would be an increase of market concentration, where only two to three carriers would fly the same routes, without fighting for airfare discount.

According to past research on airline competition and industry sources, you cannot have fare competition on routes that are flown only by two to three carriers or where the best available slots are shared among a few airlines. To sum up some of the slots could be taken over by the other British Airways franchisee, and City Flyer with its already strong position at Gatwick airport, could operate the routes that its main shareholder cannot afford to fly on its own due to high operating costs. If the go ahead is given for the cross border or transnational merger between British Airways and KLM, there will also be a chain reaction of other carriers wanting to merge their activities as it is happening in the USA at the time of writing.
Perhaps, for example, Lufthansa incorporating SAS or Austrian Airlines in its activity. Or, Swissair/Sabena if both airlines where still operating and did not go bankrupt in 2001, could have incorporated TAP the Portuguese carrier in its activity following the same process undertaken by a carrier, while buying Sabena,

Swissair group first acquired shares of up to 49% and then took over the overall operation of the carrier and then bought the remaining stakes of Sabena from the Belgium government. According to industry literature and sources such as ATW, AEA, Flight international to name a few, Swissair/Sabena is the first transnational or international merger amongst a main carrier, since the deregulation of the industry.

The purpose of this chapter has been to illustrate the resources and manoeuvrers open to powerful airlines and I have done this as well as I can at this point in time and in a rapidly changing situation. In fact, what has been written in this chapter about ownership stakes, acquisition, strategic alliances or even possible mergers amongst carrier may not occur or may happen with other carriers. This is mainly due to the volatile industry the airlines compete in and the choice some carriers must make in order to abide by the regulation dealing with competition. Furthermore, the risk of seeing the breaking down of the world’s four main airline alliances due to the consolidation process of the industry is real.

In fact, talk of mergers between United Airlines/USAir, BA/KLM, American/Northwest or American Airlines/Continental or Delta/American Airlines or Northwest and so on, can redistribute the strength of the main alliance groupments. According to Ordell (2000), “the OneWorld grouping led by British Airways and American Airlines and the highly developed Wings alliance between KLM and Northwest are both at risk from events on both sides of the Atlantic”.

161
A summary of resources and manoeuvres used by the airlines in order to enter new markets, consolidate already existing markets, bypass regulation hurdles in ownership, alliances and increase their market share are described below:

- Acquisition of regional carriers or using regional carriers as franchisees to operate their high cost routes
- Acquisition of stakes in small to medium size and well-established carriers, in order to increase their route network and market share
- Increase of stake or share ownership in order to become the main shareholder and have a greater say in the market an airline is competing in.
- Acquiring a majority stake or even merging the carrier in its structure such as Swissair and Sabena once did or like Air Canada and Canadian International, and British Airways taking over City Flyer Express
- By-passing ownership regulation by main carriers in setting up marketing agreements, code-sharing or strategic alliances, in order to have access to markets and increase their power on the worldwide market.
- Setting up of airline alliances such as the Star Alliance, Oneworld, Qualiflyer, and Wings to strengthen their position on the world airline market and by-pass regulation and bilateral agreements. Opportunity to gain the same advantage those airlines would get if governments dropped regulation on mergers or ownership. In other words, merger by stealth
- Manoeuvres by main carriers in using their resources and position in the market to lobby governments in order to have some regulations dropped e.g. foreign ownership limits, better deals in bilateral agreements, and cabotage rights
Chapter V

5.0 Dynamic of strategic alliances in the airline industry

Strategic alliances have become a popular and important strategy for entry into international markets. Alliances, according to strategic literature, are sealed in order to allow partners to share risk and resources, gain know-how, and access markets that could not be accessed in the past. In addition to this and according to Kotler (1997), companies enter into an alliance for a number of reasons, such as filling gaps in their current markets and technology bases and reducing risk and entry costs into new markets. Also, accelerating product introductions, producing economies of scale, overcoming legal and trade barriers, extending the scope of their existing operations and cutting their existing costs when divesting operations are important criteria.

Alliances are sealed on the national and international markets and include most of the world industries e.g. manufacturing, automotive, pharmaceutical and many service industries. Furthermore, the intention of strategic alliances with friendly partners or even competitors is to establish and maintain long-term relationships (if possible) in order to compete more effectively with other firms in the same industry and to offset regulation. According to industry literature and past research the numbers of alliances in the service sector are increasing at an interesting rate. However, it seems that the effect and the importance of the alliances and their consequences have been mainly studied in the manufacturing sector and not so much in the service industry.

The service industry includes the banking, telecommunication, leisure and travel sectors. Some researchers have looked at the development and evolution of the banking and telecommunication sector; however, only few have looked at the airline industry. In fact, due to the evolution of the industry, the airlines seem to go towards more strategic alliances, possibly merging or increasing their acquisitions. According to Seristo (1999), the airline industry seems to be the main example for the service sectors in understanding the dynamics and consequences of strategic alliances.
According to Seristo (1999):

The airline industry is a fruitful object of study as it very often combines the international dimension with other complication factors such as regulation of operations, government ownership in firms, as well as regulatory impediment which preclude firms from merging.

It is a known fact and is explained in past chapters that factors such as government ownership of national flag carriers and airports as well as regulations stopping mergers or acquisitions of majority stakes in other carriers both have an influence on the strategic environments of many airlines.

However, this is in sharp contrast with other service sectors such as the banking and telecommunication and the manufacturing sector. In fact, it seems that due to the breaking down of regulatory trade barriers, and the non-restriction in foreign ownership and disengagement of government involvement, manufacturing and some service sectors such as the telecommunication and banking industries are not affected by those regulations.

Mergers and acquisitions can occur more naturally than within the airline industry and the firms' environment in which they compete is not as restricted as it is for the carriers from full mergers (general industry sources). As can be seen, there is a sharp contrast with the airline sector, with which one has to look at with alternative forms of cooperation. Therefore, it would be of interest to look at what past or recent research has to say on the subject of strategic alliances in the main industries, but with a particular interest for the service industry and airline industry e.g. the dynamic of strategic alliances amongst airlines.
A strategic alliance is defined by Gulati (1998), as "voluntary arrangements between firms involving exchange, sharing or co-development of products, technologies or services". According to Gulati (1998) and a study published in 1999 by Seristo, "alliance research has been done mainly on a dyadic level and has focused primarily on the attributes of firms that influence their productivity to enter alliances, the formation of alliances, the performance of alliances and the firm-industry-level factors that compel firms to enter alliances".

There has been research on strategic alliances based on various perspectives as described by the literature. Some of these perspectives look at the creation value through alliances, learning from alliances, the rationale of alliances, performance measurement of alliances, and the characteristics of alliances and so on.

Glaister and Buckley (1996) have studied the reasons or characteristics of international alliance formation. The study highlighted market and geographical expansion as the main motives for alliance agreement. In another study based on the auto industry, Burgers, Hill and Kim (1993) came to the conclusion that alliances are mainly a device to reduce both demand and competitive uncertainty. The alliances between competitors have been investigated by Hamel, Doz and Prahalad (1989). The development process and relationship in alliances have been studied by authors such as Ring and Van de Ven (1994) and Doz (1996). The focus of their research was on the factors and processes, formal and informal, which influence the development of typically dyadic alliances. Furthermore, according to them, it seems that the evolution of alliances has often been linked to the success or performance of alliances. Other researchers such as Brouthers, Brouthers and Wilkinson (1995), have focused on the partner selection and presented a framework to help firms assess the possibility of the success of an international alliance and the suitability of partners.
Madhavan, Koka and Prescott (1998) have undertaken research that is of interest from an airline industry perspective. The research focuses on the networks perspective of alliance development. Singh and Mitchell (1996) have looked into the evolutionary theory of business strategy in the alliance framework.

It is suggested in their work that the dual nature of inter-firm relationships both helps a firm to survive and inhibits its ability to adapt to changes in the environment. Khanna, Gulati and Nohria, (1998), have explained and developed in their study “perspectives on the dynamics of learning alliances, assessing the roles of co-operation and competition in affecting the dynamics in alliances”. The study particularly looked at international alliances, especially ones where there is more than one factor that has an important input on the way alliances are formed and structured. In other words, the alliance structure varies from the sole non-equity investment such as code sharing between airlines without change in the decisional process, to equity investment such as joint ventures. In fact, in the last process it seems that when equity investments are made the decisional or hierarchical structure of the joint venture is affected (Khanna, Gulati and Nohria, 1998).

In addition to this and according to literature on strategic alliances, the complexity of alliances as organisational structures has been studied; for example by Killing (1998). Also, according to Seristo (1999) the organisational properties of alliances have been studied by authors such as Sheth and Parvatiyar (1992) on a general level. Others such as Osborn and Baughn (1990) have studied the properties of alliances in an international setting. Contractor and Kundu (1998) have studied the organisational forms of international alliances, with a special interest in the service sector.

Their work has looked at a new “syncretic” theory on alliance organisational mode, where according to the authors they argue that a robust theory on alliance organisational mode needs to include “country, agency theory, corporate knowledge and organisational capability theories” (Contractor and Kundu, 1998).
Most of the studies on alliance performance such as Dussauge and Garrette (1995) and Gleister and Buckley (1998) have focused on joint venture performance.

The earlier research on airline performance looked at performance as such, while the latter research has looked at performance implications of an alliance to its members on a more general level (Chan, Kensinger, Keown, 1997; Das, Sen, Sengupta, 1998; Doz and Hamel, 1998; Koh and Venkatraman, 1991). Saxon (1997), added or suggested in his study, that there is a positive relationship between partner firm’s benefits, form alliance participation and partner reputation, shared decision-making, and strategic similarity between partners. Gulati, Khanna, and Nohria (1994), concluded in their study that the success of an alliance depends much on how the partners see theirs roles in the alliance, which is of much relevance to the previous point.

5.1 Airline alliance research

Strategic alliances and deregulation have been one of the most important phenomena of airline strategy in the last 10 to 15 years (industry source). However, it seems that in the last decade little research has been undertaken into the understanding of the dynamics of alliance, the development of those alliances and their motivation, as well as the composition of those alliances (Seristo, 1999; other strategic literature sources). Past research on airline alliances has been looked at from various points of view and perspectives according to the industry and strategic literature. Some of the perspectives are causes and effects of equity alliances (Youssef, 1992), benefits (Park and Zhang, 1997), performance enhancement (Park and Cho, 1997), and corporate value (Park and Zhang, 1998).

Also, safety implication (Button, 1997), discusses the policy implication of establishing a national carrier as an attractive senior partner in a global network (Oum, Taylor and Zhang, 1993), the effect of code sharing on international fare levels (Oum, Park and Zhang, 1996), and partner choice (Nyathi, 1996).
Other researchers such as Bissessur (1996) looked into the critical success factor of airline alliances. It was suggested that for an alliance to succeed, it was crucial to have compatibility between partners. Bissessur (1996) also suggested in the study, that the imbalances or power amongst the different partners have to be minimised or levelled. Thus, monitoring the process or mechanism periodically ensures the success in an alliance agreement.

However, Bissessur does acknowledge the fact that most of his findings are based on partnerships between airlines of the same size and same importance on the market. In other words, in case of an alliance agreement between a big carrier e.g. British Airways and a small one e.g. LOT, the balance of power within the alliance may go with the more powerful carrier. Therefore, the compatibility mentioned in Bissessur's (1996) work might not be an important factor. Other variables may have to be taken into account when the alliance agreement is signed.

Therefore other researchers have looked at the difference in roles and relationship between well-established, medium sized and small carriers. One of them, Gialloreto, (1986) developed a classification of airline types with regard to their positioning within alliance networks. Others such as Brewer and Hooper (1998) researched the possible distinction between pure exchange relationships amongst alliances, such as code sharing on a given route.

The reason for doing this, according to Brewer and Hooper (1998) and according to the findings in the past chapters, is to respond to the regulatory hurdles airlines encounter within the environment in which they compete. Also, according to the same source and my interpretation, real exchanges of route networks that occur in the industry due to the environment hurdles bring alliances and airlines closer to being an organisation in their own right.

In other words, a grouping of airlines such as the Oneworld or Star alliances that runs partnerships not as two or three companies but as one.
For example, one or two chief executives who are in charge, one not-too influential player such as a managing director and two or more subalterns or so-called managers who follow the decisions taken and are happy as long as they receive a pay cheque. In fact, such structures may be considered as a merger by stealth, due to the way the carriers involved interacted or behaved as one company, which, in turn, in the foreseeable future might incorporate one of the small partners into the structure of the two main partners. Even though each decision taken has to go through different committees, the partners involved in the alliances must approve them.

However, the above scenario would not be possible when more than two main airlines with similar route networks and partners e.g. American Airlines, British Airways, KLM or Delta were involved in such a grouping. Any power conflicts within the alliance that may occur would not bring success to the alliance according to my findings or understanding of the industry.

As mentioned above, in the last decade, not much research has been done into the understanding of the dynamic of alliances or the development of the alliances regarding their motivations and composition. According to literature, past research such as Nohria and Garcia-Post (1991), would suggest that through alliances firms can circumvent the mobility barriers and isolating mechanism that make the imitation of strategic capabilities of other organisations very difficult to obtain. Furthermore, according to Burgers, Hill and Kim (1993) based on the global auto industry; they state “firms can avoid the limitations by corporate administrative heritage and organisational inertia to the internal development”. In addition to this, alliances, according to literature on strategic alliance, are seen as a more adequate and less expensive way to develop capabilities than developing it internally.

However, in a study by Eisenhardt and Schoonhoven (1996), the authors mentioned a resource-based view of strategic alliance formation combining social and strategic explanations.
Finally, an interesting summary of different views on alliances such as economics-based, corporate strategy-based and inter-organisational views has been published by Osborn and Hagedoorn (1997). In fact, the study seems to provide or to classify the reasoning behind the alliance process.

The early research on strategic alliances has categorised the reasons behind an alliance agreement as scale of economy, access to market, risk sharing, and access to technology and market convergence (Seristo, 1999).

5.1.1 Possible driver of international airline alliances

According to Daniel Yergin (2000) Pulitzer Prize winning author at the International Transportation Symposium:

The powerful forces of globalisation, which have created new rules and new winners in scores of industries worldwide, will inevitably bring hard decisions and dramatic change to the worldwide airline industry.

At the same conference, Yergin (2000) explained that “the international airline industry is at the forefront for helping or enabling worldwide commerce and interchange”, however, at the same time it is “trailing other industries by as much as 10 years in adopting driven strategies such as consolidation, expanded scale, deregulation and networks structure”.

In other words and according to the past chapters, due to government and regulationary hurdles, the only way for the airlines to keep developing or maintaining their actual market share until foreign or national ownership regulation change, and to some extent facilitate the worldwide commerce and interchange of goods, is to go into an alliance agreement that will enable them to stay competitive, and pro-active.
According to studies based on strategic alliances, the growth and impact of alliances in the 1990s has been phenomenal. Studies such as Pekkar and Allio (1994), Luo (1996) have suggested an annual growth rate of above 100% in the number of business alliances.

However, according to general industry sources and airline sources, most of these alliances have been known to be unstable and have a poor success ratio (Grant, 1995; AEA, 1998/99; IATA, 1997/98). This is particularly so as mentioned in the previous chapter and above for the airline industry, in an industry which is very competitive, volatile and where things change so quickly. Industry reports such as AEA, IATA, ICAO and company reports as well as a study by Linquist (1996) have noticed that fewer than 30% of international alliances in the airline industry have been successful.

One of the most important developments in the international airline industry in recent years has been the growth of airline alliances (AEA, 1999). These alliances have involved co-operation between two, three or more airlines in a wide range of agreements on aspects such as operation, scheduling, purchasing, marketing and frequent flyer programmes. The reasons for such agreements are due to the incessant increasingly competitive pressure on airlines to improve efficiency, reduce costs, increase market share by accessing new markets and increase passenger loads as mentioned in Chapters IV and I. When looking at the developments that have occurred in the airline industry in the last 10 to 15 years, it shows that the two predominant factors are the deregulation or regulation hurdles and the alliance agreement among carriers and competitor (industry sources).

In other words, the lack of mergers and acquisitions that occur in other industries, when deregulation is implemented, and the type of industry the airline is competing in, is responsible for the development or setting up of groupings of airline alliances that function as one company.
Also, the increase of participation or the maximum equity permitted in so-called minor carriers under government law is responsible for such developments.

In a study published by Doz and Hamel (1998) and a paper by Seristo (1999), both authors have presented the features that differentiate alliances from mergers. Seristo (1999) in the study mentioned above has extrapolated the factors that are most relevant to the airline industry.

Those factors are:

- In alliances there is much uncertainty and ambiguity
- The manner in which value is created in alliances is not preordained
- In alliances the relationship between partners evolve in ways that are hard to predict
- The playing field in alliances is very unstable or turbulent. Today’s partner may be tomorrow’s rival
- Alliances relationship management in the long term is usually more important than the initial formal design
- Success in alliances is very much determined by adaptability to change

In addition to these points, the next few points taken from my analysis of the airline industry sources and past chapters and assumption may be complementary and may add another dimension to the points made by Daz and Hamel (1998) and the assumption made by Seristo (1999) in his study.

- Alliance partnership can turn into the creation of a single stronger airline, in acquiring first a minimum stake and then taking over the carrier, when governments release shares e.g. Swissair/Sabena as it appeared at one time or British Airways and City Flyer and Quantas
• Global strategic alliances such as the Star alliance, Oneworld and Wings may create
  the concentration of a few carriers on certain competitive routes, which in turn could
  result in a lack of fair competition and the failure of medium carriers on the same
  routes
• Alliances may result in a cost reduction for the carriers, but may not be seen as
  reducing airline fares for travellers

As mentioned in the past chapters, international traffic forms a major portion of all air
traffic, which in turn affects or influences domestic traffic and vice versa.

In other words, without well-established networks of domestic routes and appropriate
infrastructure, the further development of international air traffic would not have
occurred. In fact, a lack of proper international air traffic structure would not permit the
development of proper route networks structure.

Therefore, the need to develop networks or alliances is of vital importance for the
carriers, particularly if they want to become a force or if they do not want to lose ground
in the newly developing industry.

Even if there are no truly global players at the moment according to industry sources,
two main groupings of airline alliances, the Star Alliances and Oneworld Alliance are
being developed. Both of them have each about 20% of the world international market,
followed by two smaller one, the Wings Alliance and Sky Team Alliance (AEA, 2000;
IATA, 1999). Barlett and Ghoshal (1995) define this type of grouping that airlines
belong to as trans-national corporations. In other words, airlines set-up alliances with
other carriers from different countries or even from the same country in order to have
access to their markets and offer in return reciprocal arrangements and to their know-
how.
The trend of alliances amongst carriers started in the late 1980s, where a number of code-sharing agreements took place. Since the 1990s the number of alliances has grown each year (AEA, 1998; IATA, 1997/98).

According to industry sources and a survey by the Air Transport Intelligence in 1999, it is reported that in the early 1990s the number of alliances totalled 172, but in 1999, there were a total of 513 airline alliances, among them 204 formed in mid-1999. According to the same survey, 50% of the actual alliance agreements have been concluded during the past three years and it seems that the trend is continuing and the number of alliances is increasing.

According to industry reports such as those of ATW, IATA, ATA, AEA, Flight International and so on, company reports such as those of British Airways, Lufthansa, Iberia, Air France, Swissair, there are different levels of drivers in airline alliances. Some airlines are driven into alliance by the cost saving that they can make.

An example of this is the sharing of ground handling at airports by both airlines or by the grouping of airlines e.g. Oneworld, Star Alliance, or the airport structure facilities. Other airlines are aiming at gaining market access through code-sharing and marketing agreements in order to promote the carriers involved in the alliance in their respective countries, and the combination of their frequent flyer programmes.

In fact, a passenger belonging to the Oneworld alliance would be entitled to additional mileage when flying on, for example, British Airways or Iberia, even though the ticket was purchased at an American Airlines desk and the first leg of the trip was on American Airlines.

Other alliances, according to industry sources, are defined by some carriers as the only way to survive and stay competitive in a fierce and volatile environment.
According to Alamdari and Morrell (1997), there are two main drivers of alliances in the airline industry. The first is "the search for more market power" and the second is "the search for lower operating costs".

According to Seristo (1999), the two categories mentioned above cover the reasons for airline alliance arrangements. However, according to the same source, "international airlines are facing a business environment which has recently undergone significant changes and which leaves airlines with three basic strategic choices: growth, focus or lowest cost strategy". According to the Airline Alliances and a Competition report published by the AEA (2000) "alliances enable airlines operating route networks to improve the range, attractiveness and efficiency of their service and compete more effectively".

According to the same source, the common drivers or main features of alliance agreements are as follows:

- Schedule co-ordination, providing passengers with a greater number of connections and reducing connection time
- The introduction of new services, increasing the variety of both direct and indirect services to passengers
- Discounted fares for connecting services operated by alliances partners, representing significant savings on conventional interline fares
- A number of seamless travel initiatives, such as reciprocal lounge access and coordinated baggage handling, designed to improve the quality of service on flight involving interconnections
- Coordination of frequent flyer and corporate discount programmes, enabling passengers and corporate customers to accrue benefits

As mentioned above, these points have been defined by some of the main industry sources (e.g. AEA) as some of the main possible drivers for alliances.
However, the list is not exhaustive and should not be taken as such, particularly in an industry where things evolve or change so quickly.

5.2 Airline alliances

The world airline industry has experienced significant changes in the last decade. The main changes that have occurred are liberalisation and deregulation as mentioned in the past chapters and above. These changes have modified the way airlines compete in the major markets around the world (industry sources). In other words, the rules of competition amongst airlines have changed, especially since the increasing trends towards alliances has changed the face or drawn a new map of the airline industry, when comparing it with the early 1980s and 1990s.

Some of the main factors that have changed the industry have been the need to improve their efficiency and competitiveness (AEA, 1998/99/00; IATA, 1999/00; and other industry sources), especially since the surge of new carriers that has occurred in most markets throughout the world, meaning low profitability. Restrictions on cross-border mergers between international airlines as mentioned in previous chapters and above are one of the other factors.

In fact, the restrictions are responsible for the way carriers seek new paths to achieve global operations, as well as the link between capacity constraints in air service agreements and serving airport infrastructure e.g. see Chapter III (main industry sources).

The majority of the existing airline alliances were formed in the 1990s according to industry sources such as Airline business magazine, IATA, AEA, and ATW. However, the origin of alliances can be traced as far back as the 1940's (Hanlon, 1996; Seristo, 1999). According to the industry sources, airlines such as Iberia and Air France were to some extent the instigator of the first type of alliances by helping or setting up the operation of many carriers in South America for Iberia and North Africa for Air France.
However, it is not until the late 1980s that the trend towards strategic alliances started to have an influence in the development of the industry, when a number of equity based arrangements were agreed between some airlines (Hanlon, 1996; other industry sources).

According to industry sources e.g. ATW, AEA, IATA, Airline business magazine, and company reports, Scandinavian Airline System (SAS) was the airline that started to be actively involved in equity based arrangements and sought strategic alliances partners. The way in which SAS looked at alliances was based "on a more strategy-level approach than other carriers" (SAS company report).

However, it is mainly in the last decade that the world’s airlines started forming alliances (The Economist, 2000). In fact, since the 1990s, the number of alliances has grown each year and the industry has become even more competitive and volatile. Furthermore, according to industry sources such as Airline business, ATW, and AEA, to name a few and as mentioned in Chapter I, the number of alliances listed 10 years ago represented a mere 172, and only 82 of them were involved in equity investment.

In a survey published in 1998 by Air Transport Intelligence, it was reported during 1998 that there were a total of "502 airline alliances, an increase of 38% when comparing the figure in 1997, which figures were based on 196 airlines". In another survey published by the source mentioned above in 1999, it was noted that there were "no fewer than 579 bilateral partnerships involving 220 main airlines, an increase of nearly 50% over the past 4 years". As it can be seen the trend towards alliance agreements seems to be increasing every year and further changes may occur with the development of alliances groupings such as Star Alliance, Oneworld, Wings, Skyteam and Qualifier group.

The alliances among carriers offer a form of consolidation without the full cross-border mergers that are not allowed under government ownership as mentioned in previous chapters.
Most of the alliances are between two to three partners, however, in the past 4 to 5 years the number of partners has increased. This is mainly due to the change of strategy by carriers.

In fact, even though most alliances were and are still between carriers from different countries, airlines were and still are looking at developing alliances with partners from the same country or even competitors, as mentioned in Chapter I and IV. One of the main reasons for such a change in strategy or trend is the step taken by governments towards even further deregulation and the result of this is the move towards global alliances by airlines.

To confirm the statement above, the Economist (2000) stated, “due to further deregulation in the airline market, the steps taken by most of the main airlines was to foster global alliances”.

Most of the airlines throughout the world are in the process of or have already formed groupings in order to become truly global and ready to compete on a global market (industry sources). The two largest groupings of airlines as mentioned previously in this chapter are the Star and Oneworld alliances, which have each about 20% of the world international passenger markets, followed by the Sky Team, Wings and Qualifier (a further analysis of the above groupings will be offered later on in this chapter). However, due to possible changes in foreign ownership by governments, which may allow mergers to happen, there is a strong possibility to see even further changes in alliances or groupings and further reshaping of the industry.

For example and as mentioned in chapter IV, Swissair took control of Sabena the Belgian flag carrier, Air Canada took over Canadian International the second main carrier in Canada, and Air France took over Air Inter, known as Air France Europe to merge them in their activities. Air France Europe is mainly used as a domestic carrier to fly internal routes.
5.3 Property/Complexity/ of airline alliance

Alliances between international and national airlines for the provision of airline services has become a very important feature of the airline industry, as mentioned in this and past chapters, as well as industry literature. The term alliances as it is referred to in a study on the economic impact of international airline alliances is “an agreement between airlines to cooperate in the provision or operation of some their airline services”. However, first and foremost, alliances are formed to gain market share and reduce costs according to industry literature.

According to the Air Transport World (1999):

Serving the customers is not the reason for airline alliances, but the goal of capturing a greater market share is to get more passengers, service and the use of that service to gain market leverage are implicit in the alliance movement.

Alliances in general terms create force and multiply the benefits that partners receive in terms of economies of scale, revenue and market access (industry sources). However, it may not be seen as successful or efficient when it comes before the customers (ATW, 1999). According to the same source, the alliance’s success is dependent on the customer perception and on what he or she can receive as a result of such an agreement. In other words, without well-defined marketing efforts to promote the alliance, new route networks, frequent flyer joint venture, the alliance agreement may not succeed, and to some extent, offset the cost benefit that such joint ventures are supposed to bring. For example, what would be the point in a customer staying in or joining alliances, or paying a fare that can be more expensive, when others offer cheaper fares, even though the service is not as good as that of the airline grouping.

As stated in this chapter, and Chapter I/IV and in industry sources, the alliance agreements can become very complex, when the number of interested parties in a coalition increases.
This is not only due to the nature of the partnership, but also due to the regulations that are in place in countries around the world (AEA, 1999/00; Economist, 1999). For example, and as mentioned in chapter I/IV, the equity owned by partner airlines in the USA and Europe and also the type of partnership allowed differ.

In fact, the “U.S. Laws and the Treaty of Rome” do allow only a certain type or degree of joint-market planning or ownership into a foreign carrier. In addition to this and according to industry sources e.g. The Economist, AEA, ATW; “internal agreements amongst the airlines partners may create a difficult situation, in trying to define or come to terms with how they will be marketing the alliance, who will be in charge and how far partners are ready to go”. This situation can be very complex, and if parameters are not defined in advance, it may become one of the factors, which determine the stability, or non-stability of an airline alliance agreement.

Bilateral alliances once used to be notoriously unstable but have recently seemed to be settling down according to the Economist (1999). Furthermore, in a study by the Boston Consulting group and published by the Economist (1999), it was found that two thirds of the alliances nowadays have lasted more than three years. According to the same study, between 1992 and 1995 two thirds of the alliances were falling apart. Since then, four to five grouping of alliances such as the Oneworld, Star, Wings, Sky Team, and Qualiflyer, have gradually emerged. According to industry sources, these five groupings account for about two-third of air travel. Furthermore, according to the Economist (1999), it was expected that most of the alliances would eventually consolidate into four or five mega-carriers.

As explained in the past chapters and above, the ban on foreign ownership and government involvement in controlling some routes and flights does not allow international mergers and limits airlines entry to new markets:
As stated in most of the literature on the airline industry and to some extent in most marketing and advertising campaigns by airlines:

The purpose of an alliance is to offer passengers seamless travel, with better connections, more airport lounges and frequent flier benefits, wherever they go, provided they stay with the alliances.

The above statement has to be taken lightly by the passengers. In fact, it is effectively a way to see improved flight connections and to have adequate facilities available at airports around the world. Also, it is a way for passengers to see an increase in their frequent flyer benefits and to make use of the added destinations that an alliance brings.

However, as mentioned previously, serving the customers is not the reason for airline alliances or even one of the main reasons. The aim for carriers is to get more passengers and make them use the services that are made available, and if possible restricting their choice.

As mentioned above, the result of some alliances e.g. Oneworld and Star alliance can restrain the choice that customers or passengers have. Airlines can reduce the range of competitors by combining their marketing and joint-management capacities on some of the most important routes and using their equity or majority in smaller carriers to be used as feeder for their main hubs. In other words, with the disappearance of competitors there is a high certainty of seeing an increase in fares due to the lack of choice available to customers. However, according to the Economist (1999) “airlines insist that alliances actually reduce ticket prices”. David Marchit of America’s Department of Transportation backs the statement made by the airlines. He points out that since 1996 “fares have dropped by 17% between America and the European countries with which they have an open skies agreement” (Economist, 1999).
Brueckner and Whales support the idea or supposition that airline alliances are to some extent to be thanked for cheaper airfares (The Economist, 1999). In their study, they found that "fares for transatlantic journeys involving several legs are 18-28% cheaper if done within the route networks of allied airlines, rather through non-aligned carriers". Furthermore, according to the same authors, the reasons behind cheaper airfares are the fact that so called partners gain "by practicing co-operative pricing". In fact, by having co-operative pricing, airlines can maximise throughout all the members the benefit that the alliance agreement brings such as sharing co-operation, staff, and airport infrastructure.

Therefore, according to the above statement the supposed outcome of such savings should be passed on to possibly cheaper airfare tickets. However, as with companies in other industries, airlines are there to make a profit by whatever means possible.

When comparing it with other industries, the profit margin for carriers is very slim and a possible reduction in airfare tickets or airfare war on some of the most competitive routes may dent their profit margin even more. Not only the most profitable routes are concerned but also to some extent the not so competitive ones, that are used as feeder routes to the main airlines hubs.

However, as mentioned in Chapter I and Chapter IV, to have fair competition and cheaper airfares, you need more than three carriers on the same route. Therefore, the statement made by Brueckner and Wahles in the Economist (1999) and some others, that airline alliances in general enable airlines to achieve cost savings, through cost sharing, and better capacity utilisation or process streamlining, which in turn will be passed on to the customers, may not be as good as it sounds. In fact, if the airlines that are involved in an alliance face an important level of competition e.g. London to Paris with more than 5 airlines flying, the above savings will result in cheaper airfares.
However, if the level of competition is restricted e.g. Zurich to Copenhagen, London to Stockholm or London to Geneva, the airline alliances or the number of airlines competing on the same routes may exercise their strong position or market power on those routes. In other words, the airlines involved in those alliances may seek to reduce capacity e.g. airport slots, hubs (see Chapter III) and increase airfares.

My statement is supported by the GAO study (1995) taken from research based on the economic impact of airline alliances (1995) which state that there is “little evidence of the impact on passenger fares”. The study examined the “effect of alliances between US and foreign airlines on airlines”. The study argues “insufficient data exists to determine the effect of alliances on fares”.

It goes even further by concluding “the absence of complete and accurate data prevents adequate monitoring of the competitive impact of alliances” (GAO, 1995).

The possible result of the use of market power by airlines involved in alliances is the reduction in the number of airlines competing on the same routes and an increase or the levelling of airfare tickets. Also, in order to avoid an outcry of complaints pouring from the customers or governments, as well as having their image tainted, carriers may leave the level of pricing at the same level. This may be done in order to show the public in general that competition does exist even in a possibly restricted or concentrated airline industry.

Barriers to entry is another way for carriers to prevent potential new airlines, from entering into the air service industry, according to industry sources e.g. GAO, AEA, IATA, ATW. Also, it may stop existing airlines from entering into a new market or expanding their route networks. Those barriers to entry are as mentioned in past chapters, restriction on ownership and control of airlines, difficulties in securing access to airport infrastructure and capacity constraints (industry sources).
According to the economic impact of international airline alliances report (GAO, 1995), the above constraints “have sometimes provided the impetus for airlines to establish airline alliances”. According to the same source, “there is a presumption that market power will be heightened where an alliance is formed between two airlines operating on a route characterised by high barriers to entry” (GAO, 1995). In other words, if one of the members that belong to an alliance decides to increase its fares or stop further competition by limiting the capacity available, it may make use of its market power to stop competition entering profitable routes.

This is done, by buying stakes or setting up a new low-cost carrier or using a low-cost, regional carrier that belongs to a member of the alliance to fly non-profitable routes on its behalf or use it as a feeder to its international long-haul. By doing this, carriers may create further barriers to entry, which may prevent the competitors decreasing their fares, or to some extent increase their fares or bring it to the same level.

In other words, by having limited access to some routes or slots at airports, a competitor may not have the possibility to respond to the challenge e.g. decrease in fares or even increase in fares, even if some slots at an airport are made available. In fact, having a slot is one thing; having an efficient and profitable one is another, especially on profitable routes (see Chapter III). There may be no point for a major or medium sized carrier to decrease its fare or increase it while competing on the same route with another carrier, especially if you do not have the appropriate slot and cannot make substantial profit in the long term, even if the flight is full for the first few weeks or month.

Another example of possible market power to restrain competition, used by the main airlines, can be seen in the way fuel charges are added or not added. In fact, it seems that some of the major airlines throughout the world, but particularly in the USA, are adding surcharges of $40 per round trip to advance purchase tickets during the peak holiday period, but not in the weeks before or after the same holiday (USA Today, 2000).
In addition to this, those main carriers show the same fare as competitors as advertised or published by them e.g. Computer Reservation System, and add the surcharges mainly when the customers come to book or buy the tickets (USA Today, 2000). In other words, it makes the final price far higher than that of some other airlines for the same route.

Other examples of the possible use of market power by an airline involved in a strategic alliance are the way some surcharges are imposed on some routes and not on others (USA Today, 2000). According to this source, “the main airlines are likely to forego surcharges where they compete with discount carriers, e.g. Southwest, which does not surcharge its passengers”.

To emphasise the previous statement, an extract of a round trip holiday fare from Raleigh, N.C. to New York taken from the article published by USA Today (2000) may be useful to the readers. A round trip holiday fare from Raleigh, N.C to New York was published by the Expedia Travel web site as having a base fare of “$136 on several airlines, including United and US Airways”.

However, according to the same source, if the passenger had checked the final price thoroughly, she or he would have noticed that the United fare had a surcharge of “$59, a 43% increase”, which brought the final price of “$195”. However, the US Airways fare did not take into account the surcharge, making the final price of $144, 6% higher than the starting price. In other words, where there is competition on routes throughout the world e.g. USA and Europe, the fuel surcharges are applied based on the competition in certain markets. On the other hand, where there is limited low-fare competition as is the case in Europe, major airlines may impose fuel surcharges.

According to the economic impact of the international airline alliance report (1995), “An airline with market power can constrain output and raise prices without the fear of a competitive response from other rivals”.

In addition to this and according to general industry sources, it is conceived that the factors described previously in this chapter, e.g. barriers of entry, the nature of competition in the market or state of the market and the feature of the alliance may be influential in giving the ability to the airlines involved in major alliances use of their newly found market power to deter competition and new entrants.

In other words, where there are airline partners who have a substantial share of passenger traffic or market share on some routes and where there is little competition from other airlines on primary and secondary routes, the market power ability of the carriers involved in alliances will be enhanced. A study undertaken by Borenstein (1990) and Werder, Joskow and Johnson (1991) confirms this view.

They have identified in their research that following the merger between Northwest and Republic Airlines in 1986 fares increased on the routes previously operated by the two airlines. Also, according to the same study and other sources, some studies have shown that “a reduction in the number of competitors on routes can result in an increase in fares” (Borenstein, 1992; Joskow, Werden and Johnson, 1994). What has been described above is not only valid for the USA but is also indicative of market activity around the world. For example, in Europe, when British Airways took over British Caledonian, they did reduce competition on some of the routes, even though slots had to be given back to potential competitors, and an increase of fares could be seen following the take over.

The US Transportation Secretary Rodney Skater released three studies confirming what is quickly becoming obvious to fliers that:

Airline competition pays off in lower fares, yet major airlines use a wide variety of potentially predatory tactics, from price slashing to frequent-flier bonuses in order to drive out discount upstarts (USA Today, 2001)
Furthermore and according to the same source, there is an increase in worries that the proposed merger between United Airlines and US Airways and the newly proposed mega-deal between American Airline and Trans World Airline (accomplished in 2001) would greatly consolidate the airline industry in the USA and increase the power of these already powerful carriers.

The Transportation Department studies highlight the possible issues that keep fares high, prevent or to some extent suppress competition or other carriers competing fairly, while mergers and strategic alliances occur amongst major carriers. Below you will find an extract of some of the findings by the Transportation Department published by USAtoday (2001):

- At airline hubs, where a dominant airline controls gates, 24.7 million passengers pay 41% more on average than fliers do at hubs where low-fare carriers compete.

- Some major carriers have responded to low-cost competitors with tactics that raise fairness concerns. For instance, after the entrance of a discount carrier, Northwest Airlines increased its low-fare offerings in the Detroit-Philadelphia market by 48,400 seats in 1996, and then dropped back to 910 low-fare seats in early 1997, after that carrier's exit.

- Northwest says, "its actions were reviewed by regulatory bodies and found to comply with the spirit and letter of the law".

The example of others can be cited as such that the combination of American Airlines and Trans World Airline (TWA) could eliminate competition on nine of the non-stop routes where the two airlines overlap, according to a USA Today analysis (Woodyard, 2001).
Routes where the former TWA and American Airlines are the only competitors are Los Angeles-St Louis, Dallas/Forth Worth-St. Louis and Boston-San Juan, Puerto Rico according to the same source. The result of such a reshuffle could force the industry towards even more consolidation and create a monopoly on some of the most important routes in the USA.

Another potential use of market power that is derived from the formation of airline groupings can be seen in the way airline business fares have increased, as well as the bargaining power major carriers have towards small carriers when dealing with multinational for the profitable business class market:

Airlines raised business fares five times this year, piled on two fuel surcharges and planes just kept getting more crowded. "Maybe we were not charging enough", Continental Airline CEO Gordon Bethune asserted recently when asked about rising, airfares (USA Today, 2000).

The above statement is not only valid for the USA but includes most of the world airline market. Due to the good economic situation for much of the 1990s the budget restriction on businesswomen and businessmen by their companies to travel mainly on economy or find the cheapest airfare ticket had been lifted, even though some restrictions still apply in order to avoid abuse.

According to Samuel Buttrick airline analyst for USB Warburg "if businesses were not stepping up to the plate and paying high fares, the fares would not be going up" (USA Today, 2000). Despite this, many companies have, according to the same analyst, enforced travel policies that push millions of employees to fly preferred airlines and book trips well in advance, thus qualifying for discounts.
In other words and according to my understanding, as long as the economy is booming and the competition on the main routes is restricted to a few carriers, both the company and the carrier will find their advantage. However, in order to ensure that those corporate clients do not switch to the competition e.g. low-cost airlines, perks have to be offered to these important passengers. Extra mileage on their frequent flyer schemes, discount on hotels that carriers own or have a business relationship with, access to lounges at any time and fast access to terminals (industry sources).

Also, it is important that those main corporate firms feel they get something in return for using one specific airline instead of another one. For example, better domestic or long-haul flights, direct flights, better connection time and what I think is important due to my past experience in the travel and airline industry is the commission those companies receive at the end of the year. In fact, it is a known fact but not published within the airline industry that a certain percentage of the total travel used by the companies over a 12-month period is returned to them. This practice is used mainly by some of the major carriers, and it is a way to thank the companies for using them instead of another carrier.

By offering companies a certain sum of money at the end of the year, major airlines may have the security of attracting corporate firms e.g. Ford, General Motors, BMW and Aventis, towards specifically using only their particular airlines.

According to my past experience in the travel and airline industry, airlines would do everything to keep them happy, especially when a major corporate company brings into their coffers between $50 million to over $150 million a year. Especially, when corporate firms such as General Motors have a yearly budget for international travel of $165 million, which is 25% of its travel budget (industry sources). Furthermore, the intake is not only for the sale of tickets but also merchandising and for potential, future tourism passengers e.g. holiday travel, relatives and friends that use the carriers used by the firms.
Therefore, most of the major airlines will use their market strength and alliance agreement in order to stop “by whatever means” new entrants snapping up their corporate passengers. In fact, according to the Houston Business Journal (2000), there is a new trend in the airline industry in the USA, which could see a significant reduction in travel costs for American business, mainly on domestic routes.

“Companies such as IBM, Procter and Gamble and Mac Donald are looking at possible agreements between the airlines and them, in order to obtain flat fee for seats on specific routes at high and low peak time” (Houston Business Journal, 2000). Others businesses, smaller in size are looking at similar agreement with low-cost carriers.

One example of the above new trend, can be seen with the agreement between Detroit based Pro Air and Chrysler and General Motors, which agreed to provide unlimited seats for a fixed fee to both car manufacturers (Houston Business Journal, 2000). The danger for the major airlines to lose valuable business passengers to low-cost carriers is real if this new trend is confirmed. However, to avoid such a situation some of the major airlines may look into raising entry barriers or buying majority stakes in order to set-up their own low-cost airline. This is done to use the newly founded or owned low-cost operated domestic routes and to offer the same service to corporate companies for a lower price whilst still profitable for the main airlines.

An example of low-cost carriers being courted by major carriers is DC Air i.e. the offset of the possible merger between United Airlines and US Airways flying from Reagan National Airport, which has raised interest for airlines such as American Airlines, Continental and Delta. Furthermore, it would not come to my surprise to hear that in a few months time, Pro Air or other small carriers, which have the same agreement, have been bought or are partially owned by one of the major players.

The above examples and supposition are a reflection of the North American market, however, such a situation is also happening in Europe and other parts of the world, but is not as established as in the USA, but do happen to some extent.
Also, the difference with the North American market is that the distances in Europe for
domestic or intra-European routes are shorter and that European airlines do not only
compete against each other, but have to take into account the coach, car, boat and train.

Therefore, what is happening in the North American market is also happening in
Europe, but on a lesser scale.

According to the Economist (2001) and as mentioned in previous chapters, “Airlines
have been notoriously anti competitive in the past sometimes engaging in brutal price
wars that force out weaker competitors on individual routes and then raising fares”. Also, the world airline industry is to some extent too fragmented, particularly in the
USA, where according to the Economist (2001), “there are too many of them”. Therefore, it should not come as a surprise to hear that the industry is moving towards
further consolidation, such as mergers, equity stakes, the set up of a low cost airline by
one of the major carriers and also strategic and global alliances. However, such
consolidation is not only happening in the USA, but is spreading towards Europe, Asia
and South America.

“Airline consolidation is quickly becoming the rule of the day in the USA” (Slaughter,
(Democrat-Minnesota), “the General Accounting Office (GAO) made clear last month
that the proposed United Airlines and USAirways merger would trigger further
consolidation of the industry, thereby reducing the industry to as few as three major
carriers” (Slaughter, 2001). For example, American Airlines and TWA or Delta and
Continental merger, leaving Northwest alone, which could go into a strategic alliance
with the new “Delta/Continental airlines”.

The above statement shows that domestic competition may become limited on some of
the most important routes and the great risk of seeing the disappearance of the low-cost
carriers, that pushed the main airlines to be competitive in terms of airfares, is becoming real.
According to an article written by Leonhardt and Levere (2001) which includes an assessment of airlines in the USA, it is stated that most of the proposed takeovers could force down prices, in order to steal customers from other main carriers. Unfortunately, this may happen only for a short period of time, just to show people that big airlines or reduction in competition does not mean high fares.

However, as mentioned by David. S Stempler, the president of the Air Travellers Association “These big airlines do not really compete with each other on price” (Leonhardt and Levere, 2001). In fact, without smaller discounted airlines such as Southwest Airlines, routes tend to have higher fares regardless of how many major carriers fly them (Leonhardt and Levere, 2001). Furthermore, major airlines involved in strategic alliances or possible mergers may use their market strength or power and may force over the long term the raise of airfare tickets, due to the lack of strong competition.

Even associations that are involved in the airline industry insist on the fact that the industry is more competitive than ever, “with average fares, adjusted for inflation, actually dropping during the past two decades” (USAToday, 2001).

The main problem is the market power that most of the major carriers use on particular routes such as high fares and their ability to drive out competition.

The following example may illustrate the point I am trying to make.

Over the last 14 months, Trans World Airlines (as of autumn 2001 was merged into America Airlines) has greatly increased its presence in San Juan, Puerto Rico, where American has a hub and flies about half of all passengers. “Because of TWA, fares in many Caribbean markets have fallen, airline experts said” (Leonhardt and Levere, 2001). In other words, if American Airlines succeed in their bid to buy TWA, as they did, the San Juan and some of the Caribbean routes may become an American Airlines monopoly.
Examples like this can be cited at most of the major European, Asian, South American and US routes.

5.4 State of the airline alliances

Multinational alliances have fuelled enormous increases in connecting traffic, both in markets that have historically suffered from poor quality interline service and virtually no competitive benefits, but also by providing service alternatives in markets that already have the benefits of seamless service by other individual airlines (U.S. Department of Transportation, 1999).

Airlines throughout the world are continuing to form alliances through various cooperative arrangements. For example, code-sharing, blocked space, co-operation in frequent flyer programmes, joint marketing, service, purchasing and franchising. The reasons for doing this, as mentioned in past chapters, are to strengthen their market presence and to consolidate their position in an ever increasingly competitive environment. Furthermore, when comparing the airline industry with other global networks such as car manufacture or telecommunication industries, airlines face the same challenge of providing as many services and routes to customers around the world. This is so if those airlines want to stay profitable and still satisfy the increasing global needs of their customers, including corporate firms, tourists and students.

According to industry sources and airline company reports, the current difficulties in the aviation industry justify the formation of alliances. In fact, in order to anticipate the changes in customer habits and demands, airlines are increasing their frequencies and city pairs, in order to gain critical mass in key markets.

It is a known fact that no single airline has the strength to achieve this by itself or offer efficient service that includes their own crew and aircraft to every destination. Therefore, the end result is the formation of alliances and the grouping of alliances.
These alliance agreements are seen as the only practical way to provide “seamless travel” and competitive services to passengers, while mergers are still restricted in the industry, as mentioned in Chapter IV and previously in this chapter.

Alliances increase the scale of operations e.g. larger networks, more frequencies, and create economies of scale such as marketing and sales, purchasing, maintenance, information and communication technology. Also, alliances help to consolidate know-how such as innovation, market research and customer database (industry sources).

Since all these benefits according to some of the most important airlines in the world, “ultimately accrue to customers”, alliances also increase the appeal of each partner. “More flights, simpler ticketing and booking, better connections, clearer fares and more efficient baggage and passenger handling are just some of the advantages for customers” according to company reports such as those of Lufthansa, KLM, British Airways, Swissair to name some. As noted in the past chapters and in the industry literature, the motives and advantages or benefits for the partners involved in alliance agreement are higher yields and improved revenues, lower costs and higher load factors than if not involved in a partnership. Also, access to the most important markets world wide, “high profit” and use of their huge and important market power and to some extent as mentioned in this chapter the use of their company structure to push aside competition. Furthermore, alliances with foreign carriers provide a number of important advantages that are not negligible for the airlines.

For example, market presence, experience of the partners in their respective homelands, as well as knowledge of the distribution channel, marketing and home market constraint according to general industry sources e.g. ATW, Flight International, The Economist and the Financial Times.

A reminder of the benefits that airlines can derive from their cooperation may be useful, in order to understand how powerful some of these alliances are in terms competitive advantage or effect on the competition and the evolution of the industry.

194
However, in order to be beneficial to the members of the alliances, the agreements must have ingredients that each side involved cannot achieve unless they work together (industry sources).

Most of the following benefits have been mentioned previously and in past chapters and are also made available by industry literature e.g. Gudmundsson (1999):

- Code sharing, which improves route networks, computer reservation systems, priority listing and allows the virtual extension of a foreign carrier into a domestic market it cannot serve

- Frequent flyer mileage awards across the whole networks of the alliance partners

- Traffic feed to international gateway hubs of partners

- Schedule coordination as a means of increasing the perceived seamlessness of the code-sharing service, reducing passenger waiting times at hubs and the likelihood of competitors having more convenient connections

- Resource sharing through the reduction or elimination of duplication of sales offices and staff at major airports, as well as joint marketing and sales programs

- Reciprocated access to congested airport e.g. Heathrow, JFK, Schipol, by exchanging slots and terminal facilities

- Exchange of technical know-how, maintenance, sharing of information technology and use of flight equipment belonging to the partner in case of emergency

- Combination or use of the travel agent networks and possibility the new grouping strength in order to reduce travel agent commission e.g. 9% until 1999 to 7% since end of 1999 with British Airways and Swissair to name two

- Pressure on travel agent networks by the members of the alliance to ensure the sale of their products and services, instead of competition. This is done by either offering an extra bonus or threatening them with the possibility of a further cut in commission, even though such practices are supposedly unlawful in Europe and North America.
5.4.1 Power of airline groupings

According to an article published by the Economist (1998) and the airline business survey:

There are now over 500 alliances deals between individual airlines. Yet the big change is not the accelerating number, but the nature of the deals.

According to the same source and other industry sources and my analysis in the past chapters, the alliance agreements amongst the carriers are not seen anymore as simple arrangements or "loose arrangements" (The Economist, 1998), as they used to be. For example, code sharing and cross-sold tickets to name but two. On the contrary, nowadays, they are mainly known as near joint-ventures, with deep marketing agreement and code-sharing, as well as seen as virtual mergers or mergers by stealth.

For example, the Star alliance or Oneworld alliance are on the verge of or have already merged their sales efforts, marketing, frequent flyer programmes and to some extent, their personnel, according to industry sources, e.g. ATW, AEA, The Economist, and company reports.

As mentioned in previous chapters, once airlines incorporate their customer base or database in their grouping and the airline agreement such as code sharing, for example, may be moving towards a possible type of close joint-venture or even merger. In other words, they may be getting even closer and the way they expand in terms of strategy and decisional process is done as one entity and not as two or more carriers that seek their separate interest only.

However, the decisional processes takes more time than if it was a simple merger or take-over.
This is mainly due as explained in Chapter IV to the fact that each decision has to be agreed and accepted by the other members. For example, network connection, customer relations, marketing campaigns and purchasing. Some members will go along with the two or three main partners in the alliance, and others may need some convincing. However, according to the Economist (1998) “in organisational terms, these alliances are second-best to mergers and take-overs”.

The world is becoming a “global village” according to one industry report, viz. Fitzgerald (1997). Particularly, since the majority of airlines are interested in extending their route networks into markets they do not currently serve through global alliances. As mentioned in past chapters this is mainly due to regulatory restrictions on market access, ownership and control.

Therefore, the consequences of such needs and strict regulation have pushed airlines towards the formation of strategic alliance groupings. In a report on the “Global airline industry” published by Fitzgerald (1997), it is stated “airlines with a truly international route system are finding themselves at a significant advantage”. According to the same source, a high number of passengers using the networks or hubs made available by airlines e.g. British Airways, Lufthansa, Air France, did not visit Europe.

In fact, these travellers have or are using the carriers in order to have access to their main European hub as a travel gate to destinations such as North America, Asia, Latin America, Africa and the Middle East. In other words and as mentioned in past chapters, it mean that if there is no direct flight from their “flag carriers” or their airports do not operate or have a direct flight to accommodate that which the passenger wishes, they will select other airlines that may offer them better frequency of services, variety of route networks, frequent flyer programme, in-flight service and possibly a more affordable fare.
Therefore, the importance of alliance groupings that offer the widest possible range of routes, frequent flyer, service and to some extent affordable price is becoming greater than ever, particularly when the airline industry seems to go towards consolidation and concentration of markets.

5.5 Choices and synergies amongst potential partners in airline grouping

The benefits that airline partners and to some extent the passengers can derive from the agreement has been described and developed in this and past chapters. They have shown that they can be significant, particularly or mainly for the airlines. However, achieving success for an airline grouping can be very difficult according to industry sources, particularly when things evolve so quickly in such a very competitive environment. In fact, the choice of partners is important in an alliance such as the Wings, Star Alliance, or Oneworld. In others words, you must ensure that there is good synergy and must relate with them to be successful.

The Wings, the Northwest and KLM alliance, is known to be the oldest and perhaps the most successful and enduring amongst all in the airline industry (industry sources, KLM company report), in terms of synergy, followed by the Star alliance and Oneworld, which both are still in their infancy, but are both bigger in size.

In order to find the “right partners”, carriers should target airlines with possibly the same market segment and the same image. For example, Singapore Airways and Swissair have or used to have (they do not co-operate on code-sharing since 1999) the same image in terms of punctuality, a high level of service, and fly the same route from Zurich to Singapore. In addition to this, both have viable route networks in Asia and Europe that can be used by passengers for connecting flights from their main hub.

In other words, they complement each other and code-share on the same route between Switzerland and Singapore e.g. alliance agreement in order to avoid an overlapping of routes or services.
The result of such an agreement can be seen in the lack of price competition or confrontation amongst both carriers from Singapore to Switzerland and vice versa, i.e. hub-to-hub destination. The example I have just described can be applied and is applied by the others airlines who are in the main grouping of alliances or those who have only code-sharing and marketing agreements. Also, it is important that carriers have the same reservation systems or compatible systems in order to issue the same boarding passes on each flight.

According to industry sources and my analysis of the industry, it is of vital importance for an alliance to work so that all partners commit themselves to ensure the “smooth running” of the grouping and benefits equally all sides in an alliance. However, benefiting all sides equally may cause problems when it is known that “alliances are rarely equal for all parties” (Fitzgerald, 1997).

As mentioned in this chapter and by some industry sources e.g. Air Transport World, IATA, AEA, Flight International, The Economist, Air Intelligence, to name some, many analysts believe that the airline of tomorrow will be something of an amalgam. According to the analysts, the “ideal grouping” should include carriers based on different continents, such as Europe, North America, and Asia. Those airline groupings based on these continents would provide traffic feed to support a “global route system” (industry sources), as is happening to some extent nowadays. In fact, the Star, Oneworld, Wings, SkyTeam and Qualiflyer support so far the analyst’s prediction.

5.6 Airline grouping analysis and market strength

The following analysis of the most important grouping in the airline industry may give further insight into the possible effect of such synergies and their combination. For example, the number of routes and hubs, as well as the strength of the carriers involved in the alliance grouping and, in addition to this, the number of staff, services, share of resources, and bargaining power when dealing with airports and buying planes.
Also, it might help to demonstrate the competitive advantage some of the airline groupings may have acquired or are acquiring and their market power towards potential competitors.

First, a reminder of the general intent of strategic alliance partners may be useful. The intent of strategic alliance partners is to establish and maintain a long-term co-operative relationship in order to compete more effectively with firms outside the relationship.

Also, the intent of those alliances is to be able to reach as many profitable markets as possible in order to increase their market shares and route networks, without having to invest heavily in new technology e.g. aircraft, computer system, manpower, marketing campaign and saving costs. In other words they must increase their global reach, improve revenues, reduce costs and increase customer benefits, however, the last point is the one that many expert and analysts in the industry do not agree with as explained in this chapter and past chapters.

Even though such alliances have become important, the levels of dissatisfaction with the actual outcomes of the alliances have been reported and many are not successful e.g. Swissair/Sabena and the Qualiflyier grouping, in particular, the international strategic alliances which are likely to have high dissolution rates.

Therefore, the decision to form an alliance is a critical one and the choice of partners is considered vital to the success of the alliances. The partners need to work through cultural differences and engage in a process of developing a rapport and trust with one another, as well as good communication, training and understanding of the needs throughout the organisation.

Some organisations succeed, such as the Wings alliance and to some extent the Star and Oneworld alliances, however, the Oneworld is not as strong as the Star in terms of information sharing and trust e.g. passenger database, but looks to be on the way to resolving this situation.
The following 5 figures represent the actual state of the worldwide industry at the time of writing (April 2001). However, as mentioned previously it might be possible to see changes happening in the next few months, due to the ever competitive and consolidating processes in the airline industry.

The actual five groupings represent in total 54.8% of the overall airline industry, which means in terms of passengers carried 1.471 million (AEA, 2000). The main dominant grouping of airlines is formed by the Star Alliance i.e. 19% and Oneworld i.e. 13%, when both added together represent 32% of the world airline industry, which is a very significant and non-negligible part of the world airline market.

As mentioned previously, the following analysis of the 2 main groupings will try to identify the main players of each grouping, their market strength, possible competitive advantage, their main competitors, services, route networks and their possible position in the not so long future of the airline industry.

The Star grouping as well as the others shows that due to the increasing changes in customers needs and particularly in regard to regulation and deregulation laws, as well as the need for economies of scale, airlines must increase their frequencies and city pairs in order to gain critical mass in key markets, as it has been acknowledged in industry literature, strategic literature and by airline managers. To do so, as figure 12 shows, you need to have a foothold in key markets, and have strategic alliances and code-sharing agreements in order to sustain the demands and stay competitive in an ever changing and volatile industry such as the airline industry.
The Star alliance is formed of two of the most predominant players in the world that are Lufthansa and United Airlines, and SAS who is considered as one of the instigators of the Star grouping. Both key players e.g. United Airlines and Lufthansa have an important impact on the world airline market as can be seen from the above figure. Also, both players have an important foothold in the world airline industry. United Airlines is one of the main dominant players in the North American market, and will become the strongest with American Airlines not only in the North American market, but possibly all around the world, if the planned merger with US Airways is approved. On the other hand, Lufthansa is one of the main players in Europe, behind or equal to British Airways. However, due to the increasing importance of the Star grouping Lufthansa is becoming a very strong player in the world airline industry from its main hubs in Europe to the North American, Asian and South American market.

In fact, Lufthansa is also, according to industry sources, becoming one of or the most predominant players in terms of cargo freight in the world, with United Airlines, KLM, and British Airways.
The structure of the alliance is formed by two to four main players, mainly United Airlines and Lufthansa as mentioned above who have footholds in two of the most important markets and are followed by Singapore airlines and SAS. Some analysts, however, consider SAS as one of the main players in the grouping, without the same strength and to some extent proper decisional power than United Airlines and Lufthansa. Also, the grouping is formed of airlines with strong market shares in their own country, spread all around the world.

For example 4 European carriers have a strong influence on their own market and two very important North American carriers, with strong hubs for domestic and international haul. Three Asian carriers have a strong influence in this part of the globe, not only in terms of domestic haul, but also international flights and strong airport hubs in the area.

As well those are two South American and two oceanic carriers. All those carriers are linked together through code-sharing, marketing agreement, alliances and to some extent joint-venture e.g. United Airlines and Lufthansa, and are run as a proper company under the same roof in a headquarters in Germany (Frankfurt) of the Lufthansa base and in their regional offices in the Los Angeles and Bangkok.

Los Angeles is the base of United Airlines executives Bruce Harris Deputy CEO and Chief administrative Officer, where the Star IT division has been set up, in order to facilitate the integration and development of a common computer system for all the members of the alliance.

The Star alliance is the largest of the 5 groupings as mentioned previously. It consists of 15 airlines and serves over 894 destinations in more than 130 countries (Lufthansa company report, 1999). The grouping employs 322,857 employees worldwide, and has a fleet of 2,299 aircraft.
In addition to this, each member has their own code sharing or franchise agreement with regional, domestic or national carriers, which can be used by the partners involved in the Star grouping. Also, some members of the alliance have equity or shares invested in members of the grouping. For example, Lufthansa own up to 20% of SAS, Austrian and BMI (British Midland), while United Airlines has equity invested in BMI.

Furthermore, members of the airline grouping share several common destinations, which means that there is no more overlapping of routes and possible lack of competition among them on the same routes. This situation of no overlapping of route networks may even increase in the very near future, not anymore on main routes but also with the domestic, regional and intra-European routes. In fact, if the merger deal that involved United Airlines and US Airways goes through and subsequently the American Airlines and TWA, the market power and strength of the Star and Oneworld grouping will increase even more. According to Flint (2001), “American Airlines and United Airlines are dividing up US Airways as American Airlines absorbs TWA”. They claim the deal will protect and even enhance competition, but opponents view them differently.

However, the deal when or if completed will help United to become even bigger and stronger in the USA and dominate the Northeast coast with American Airlines, that include La Guardia, JFK, Boston Logan, Washington Dulles and DCA.

The following tables 16/17 taken from an article by Flint (2001) may give an even better understanding of such a merger and the consequences for the Star and Oneworld airline grouping and what may happen in term of competition in the domestic market and to some extent for the international long-haul market also.
Table 17: 2000 Seat shares (%) of top 5 competitors before carveouts

If the deals are completed, AA and UA will dominate the Northeast

<table>
<thead>
<tr>
<th>Airline</th>
<th>LaGuardia</th>
<th>JFK</th>
<th>Boston</th>
<th>Wash, DC*</th>
<th>DCA only</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>16.43</td>
<td>20.54</td>
<td>14.9</td>
<td>6.7</td>
<td>15.5</td>
</tr>
<tr>
<td>Continental**</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>8.4</td>
</tr>
<tr>
<td>Delta</td>
<td>22.38</td>
<td>17.98</td>
<td>22.1</td>
<td>10.8</td>
<td>20.6</td>
</tr>
<tr>
<td>Northwest</td>
<td>4.95</td>
<td>--</td>
<td>6.2</td>
<td>--</td>
<td>8.4</td>
</tr>
<tr>
<td>Southwest</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>9.5</td>
<td>--</td>
</tr>
<tr>
<td>TWA</td>
<td>--</td>
<td>8.79</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>United</td>
<td>7.90</td>
<td>8.06</td>
<td>11.2</td>
<td>23.1</td>
<td>--</td>
</tr>
<tr>
<td>US Airways</td>
<td>30.06</td>
<td>--</td>
<td>23.0</td>
<td>31.3</td>
<td>47.1</td>
</tr>
<tr>
<td>British Airways</td>
<td>--</td>
<td>4.37</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

* Combined seat share at Reagan Washington National (DCA), Dulles and BWI.
** Continental has an estimated 56% seat share at Newark.
Source: Salomon Smith Barney, BACK Associates, Inc and OAG

Source: Flint (2001), Salomon Smith Barney, Back Associates, Inc and OAG

Table 18: AA and UA after transaction completed of US Major capacity

AA and UA will offer 49% of US Major capacity*

<table>
<thead>
<tr>
<th>2000 ASMs (bil.)</th>
<th>Market share (%)</th>
<th>Post-transaction ASMs (bil.)</th>
<th>Market share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>160.9</td>
<td>17.9</td>
<td>211.9</td>
</tr>
<tr>
<td>Continental</td>
<td>86.1</td>
<td>9.6</td>
<td>86.1</td>
</tr>
<tr>
<td>Delta</td>
<td>155.0</td>
<td>17.2</td>
<td>155.0</td>
</tr>
<tr>
<td>Northwest</td>
<td>103.4</td>
<td>11.5</td>
<td>103.4</td>
</tr>
<tr>
<td>Southwest</td>
<td>59.9</td>
<td>6.7</td>
<td>59.9</td>
</tr>
<tr>
<td>TWA</td>
<td>37.6</td>
<td>4.2</td>
<td>--</td>
</tr>
<tr>
<td>United</td>
<td>175.4</td>
<td>19.5</td>
<td>228.9</td>
</tr>
<tr>
<td>US Airways</td>
<td>66.9</td>
<td>7.4</td>
<td>--</td>
</tr>
<tr>
<td>Subtotal</td>
<td>845.2</td>
<td>94.0</td>
<td>845.2</td>
</tr>
<tr>
<td>Alaska</td>
<td>17.3</td>
<td>1.9</td>
<td>17.3</td>
</tr>
<tr>
<td>America West</td>
<td>27.1</td>
<td>3.0</td>
<td>27.1</td>
</tr>
<tr>
<td>Am. Trans Air</td>
<td>10.1</td>
<td>1.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>899.7</td>
<td>100.0</td>
<td>899.7</td>
</tr>
</tbody>
</table>

* A7W estimates assuming the Jan. 10 transactions are completed as announced, giving American all of TWA’s ASMs and 20% of US Airways with United gaining the remaining 80%. Excludes impact of spinoffs to DC Air. Owing to different reporting standards, comparisons are not exact. AA, for example, provides separate figures for mainline and Eagle operations, while Delta combines results of Regional affiliates and CO includes the RJ operations of CO Express. SOURCE: Airline reports.

Source: Flint, 2001; Airline reports
If or should I say when the two mergers between United Airlines and US Airways and American Airlines and TWA are completed (since 2001), it will create two of the biggest ever carriers in the USA, with an increase in fleet size, hubs e.g. between two and three each, employees, gates and slots at major airports e.g. Boston, LaGuardia, DCA and increase in revenues. It is estimated in the article written by Flint (2001) that the route network addition will increase United Airlines revenues on mainline up to $6.9 billion and for American Airlines up to $5 billion.

The above changes may create non-negligible competitive advantage for the partners involved in Oneworld and particularly Star Alliance due to their anti-trust immunity. Some of the advantages can be seen in terms of better and easier connections and access to new destinations and hubs on the Northeast coast, frequent flyer programs, and a possible increase for international long-haul feeds e.g. Boston to Frankfurt or Washington D.C. to Frankfurt or London with Lufthansa and United Airlines or British Midland.

In fact, it is a known fact that airlines fly non-stop as often as possible when demand is large enough to set up a non-stop service. Therefore, in order to recoup their direct or non-stop flights, airlines use connecting hubs to serve potential passengers travelling from one city to another where demand is not enough to justify a direct flight. By doing this, airlines can manage to provide a service to non-profitable destinations or where there is low-market demand to travellers. In addition to this, the use of efficient access to well situated hubs enable airlines to take advantage of its market presence and increase profits without expanding the size of its fleet.

For example and according to a report published by Arthur D Little (2000), an airline using a single hub that provides connections between 20 origin and 15 destination cities, “can serve as many as 335 different markets” (Arthur D Little, 2000). Therefore, if you add the new hubs that United Airlines and American Airlines are about to acquire due to the imminent merger of USAir and TWA, you can see the potential for these two carriers and to their alliance grouping.
However, the risk of industry concentration, reduction in new entrants and potentially reduction in competition and use of the remaining main carriers market power to “brush aside” competitors is real on secondary or primary cities to hubs and hubs to long-haul destinations.

According to the US General Accounting Office (2000), the primary potential benefits of the grouping of alliances for consumers according to airline officials are “the additional destination and frequencies, that occur when alliance partners join route networks by code-sharing”.

In fact, as explained previously, code-sharing allows an airline to market its alliance partners’ flights as its own, without having to add more planes, staff, increase the number of choices of destinations or and the frequency of the flights they offer, without incurring extra cost according to industry sources such as ATW, AEA, IATA, and airline company reports. However, according to a GAO report (2000) there is a potential source of harm to consumers if the proposed mergers between American Airlines and TWA and United Airlines and USAir and the tightening of the two-airline groupings happen. As mentioned previously there is a possibility that the new merged company and grouping alliance will reduce competition on hundreds of domestic routes and international long haul, particularly, if partners do not compete with each other or refrain to compete too strongly on some of the competitive routes, if they are not in an alliances.

To strengthen my point, an analysis undertaken by GAO in 1997 looked at the “5000 busiest domestic airport pair origin and destination markets for air travel between two airports, in order to determine how these routes or market could be affected”. The result of the analysis supports the previous point. In fact, the number of independent airlines according to the report could decline on 1,836 of the 5,000 routes most frequently travelled by domestic passengers per year if those routes were run by alliances involving some of the big players.
Also, still according to the same report, it could reduce competition from about "100 million of the 396 million domestic passenger per year".

Another interesting example taken from an article published by the Washington Post and written by Drozdiak (2001) might even further my point. In fact, in order to alleviate the concern raised by the European Union regarding the merger of United Airlines and US Airways and the involvement in the Star Alliance of the two carriers, United decided to give up USAir slots at Frankfurt and Munich airports. This was done in order to allow other airlines to compete with flights from those cities to Philadelphia, Pittsburgh and Charlotte (Drozdiak, 2001); however, it does not mean that the slots made available by United Airlines are going to be taken immediately by competitors. On the contrary there is a risk that the slots may not be worth being operated by another carrier, unless it is a new carrier who may have a niche or cherry picking strategy.

“USAir is now the sole operator on three routes between Germany and the USA, Frankfurt to Pittsburgh, Frankfurt to Charlotte and Munich to Philadelphia, and Frankfurt to Philadelphia are operated only by US Airways and Lufthansa” according to Drozdiak (2001). In fact, that may show that even if United Airlines has given up slots at Frankfurt or Munich airport in order to satisfy the European Union commission, it is not really increasing the competition level.

Even though United or even USAir have given up slots, the code-sharing agreement between Lufthansa and United Airlines on those routes may make these newly released slots worthless for other carriers.

Industry sources indicate that USAir has a stronghold in these destinations not only long-haul but domestic as well. Also, there is a possibility in the near future that frequencies between the remaining destinations might be increased due to an agreement between Lufthansa and USAir on a code share basis or an even deeper agreement.
The forthcoming merger (as of spring 2001) between United Airlines and USAir will affect mainly the flights within the U.S.A. However, it will also have an effect on transatlantic long haul. In fact, as mentioned previously, United Airlines and Lufthansa are the founders of the Star Alliance known as the "World’s largest airline network", whose members control about one-fourth of all flights across the Atlantic (industry source). A study by the GAO on the effect of such merger on competition and mentioned by Drozdiak (2001) in his paper states that "the merger would diminish or eliminate competition in 290 markets that handle 16 millions passengers last year. It said that the deal would increase competition in only 65 markets with 3 million travellers.

The Star alliance as well as the so called Wings alliance KLM/Northwest have a competitive advantage that is not negligible, even though the Wings alliance is smaller in size and destinations covered, when you compare it with the Oneworld alliance. In fact, the Star alliance has anti-trust immunity between their European and American hubs.

Antitrust immunity allows carriers to discuss fares, schedule, and share costs and revenue. This is mainly due to a bilateral agreement between the US government and Europe and other countries with which an airline is involved in the grouping. Furthermore, due to their antitrust immunity, both groupings can integrate even more their products and image to some extent.

In fact, the competitive advantage that the Star grouping has is not only on the routes or frequencies offered to passengers, but is mainly due to the strong bond or high barriers to exit the set alliance. According to industry sources and company reports, partners are asked to stay for a minimum of 3 years in the alliances, and the penalty to leave can be heavier than the "fees" to enter the alliance. Furthermore, the anti-trust immunity is only workable if you belong to the grouping. The same day one of the carriers should leave, it would automatically lose its immunity that belongs mainly to Lufthansa, United Airlines and SAS.
On the other hand, the lack of anti-trust immunity in the Oneworld alliance may increase the risk of split, coordination, and trust among partners. The anti-trust immunity is granted while an open sky agreement between, for example the USA and Germany or Holland is sealed, which give freedom to fly without restriction between the mentioned countries.

Another interesting factor in the Star alliance is the strength of Lufthansa and its airline services, that include airline maintenance, catering, ground handling and air cargo as mentioned previously. In fact, according to The Economist (2000), Lufthansa uses its partners in the alliance as a market to promote and sell its product. “Most airline services command only thin margins (catering is one example), but a company that provides them across the world can achieve economies of scale” (The Economist, 2000). The same example can be applied to Swissair and its partners in the Qualifyer group.

Swissair uses its partners to promote its services such as catering, cargo, ground service and maintenance to the alliance members and to some extent puts pressure on them for the use of its product. Both examples have been in practice for a long time in the industry, where the carriers with the highest strength can dictate to the others. Even if it has not been published, such practices occur or used to occur on a regular basis. Furthermore, my experience working in the airline industry has taught me that they are ready to do whatever it takes to succeed and promote their product instead of a rival’s. Even if necessary, pushing aside competitors by buying or making their working environment hard seems unlikely to succeed.

The example above may add to the worries some analysts have on the level of competition in the worldwide market. Also it shows that these groupings of airlines or their level of integration for some of them, make them behave as a virtual, merged company run by two or three main players.
An example of the strength and possible integration of the Star alliance can be seen in how SAS had to give up its SAir’s Gate Gourmet catering in favour of LSG Skychef, which is part of Lufthansa, a rival of Gate Gourmet Swissair. “The Star Alliance obliged Scandinavian Airlines Systems (SAS) to drop SAir’s Gate Gourmet” (The Economist, 2000).

This example shows how powerful the airline groupings are becoming, and how hard it can be for a carrier not to belong to one of them, particularly in terms of flight connection, frequencies, route networks, hubs, slots, airport congestion, costs such as ground handling, cargo, in-flight services, maintenance, and frequent flyer programmes. Furthermore, the example above shows how one influential member, in this case Lufthansa, can command another member to use its product, which in turn can access a market that was previously not available to them and make competitors e.g. Gate Gourmet becomes obsolete on routes shared by Lufthansa and SAS in North Europe.

Table 19: The Oneworld alliance

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>American Airlines</td>
<td>Canadian Airlines</td>
<td>BRITISH AIRWAYS</td>
<td>BERIA</td>
<td>FINNAIR</td>
</tr>
<tr>
<td>81.5</td>
<td>8.2</td>
<td>82.6</td>
<td>5.5</td>
<td>6.8</td>
</tr>
<tr>
<td>AER LINGUS</td>
<td>Qantas</td>
<td>Cathay Pacific</td>
<td>LanChile</td>
<td></td>
</tr>
<tr>
<td>22.3</td>
<td>36.6</td>
<td>16.4</td>
<td>3.0</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Sources: AEA industry report 2001

The Oneworld alliance was initially formed in 1991 following the pursuit of a strategic alliance agreement or joint venture agreement based on the Northwest/KLM one, and the break down in negotiations with the American government and European Commission in the planned strategic alliance between American Airlines and British Airways.
The alliance grouping was instigated by American Airlines and British Airways, followed by Canadian International who later had to withdraw from the grouping due to the merger with Air Canada, Cathay Pacific, Quantas, Iberia and Finnair. Later on Aer Lingus and LanChile followed (British Airways factbook, 1999/00).

The Oneworld alliance offers a wide range of benefits, designed to provide their 210 million passengers “with improved levels of service, greater value and increased opportunities for rewards and recognition”, when flying to 565 destinations in 133 countries worldwide. Oneworld has 270 000 employees operating fleets of more than 1850 aircraft. The main players in the grouping are American Airlines and British Airways, followed by Cathay Pacific. American and British Airways have the highest number of individual destinations in the grouping e.g. American Airlines 231 and British Airways 233, followed by Iberia with 100 and Quantas with 86 (British Airways factbook, 1999/00).

British Airways and American Airlines respectively own both of these last named carriers to a level of 10% for Iberia (both carriers), and 25% by BA with Quantas Airways (Oneworld report, 2000).

American Airlines operates hubs at Dallas/Ft Worth, Texas, Chicago, Illinois, Miami, Florida and San Juan, Puerto Rico. In addition to this, American Airlines operates a joint hub at JFK through their agreement with British Airways. British Airways operate one main hub at London Heathrow and fly to worldwide destinations for their long-haul trips. Also, British Airways uses its Heathrow hub and its secondary hub at Gatwick to fly domestic, intra-European and regional routes.

As mentioned previously, Oneworld offer services to 565 destinations in 133 countries, with the help of the 23 affiliate companies that are connected to the eight full members of the alliance (British Airways factbook, 1999/00; Oneworld report, 2000).
The 23 affiliated carriers are divided as follows, 11 belonging to British Airways and operating in Europe, 2 by Iberia and also operating in Europe, 1 by American Airlines and operating in the USA and in Mexico, the Caribbean and Latin America, two by Lançhile operating in South America and 4 by Qantas operating mainly in Australia. The same can be seen in the Star Alliances with Lufthansa owning shares in British Midland, SAS, and Austrian airline to name two.

The following services offered by the Oneworld alliance are similar to most of the other grouping of alliances including the Star alliance, the only difference is the size of the grouping, the name, the level of interaction in the Frequent Flyer Programme and some extent the quality and infrastructure offered to passengers.

These include (British Airways factbook, 1999/00):

- Closer linking of their frequent flyer programs. This enables members of the 8 airlines frequent flyer programs to earn and redeem miles on any eligible flights and fares of the Oneworld alliance airlines. Qualifying flights will also count towards frequent flyer tier status.
- Top tier frequent flyer cards have been re-issued with new Emerald, Sapphire and Ruby symbols, to ensure members receive the appropriate recognition and privileges to which they are accustomed, no matter on which of the eight airlines they are flying.
- Access to the eight airlines’ 230 plus exclusive lounges for eligible members of their frequent flyer schemes, no matter on which of the eight airlines they are travelling, include priority check-in, standby and wait-listing, and preferred seating and boarding.
- Smoother transfers for passengers travelling across the global networks of the eight carriers
• Greater support, with employees of each airline equipped to assist and care for customers travelling with any of the Oneworld airlines.

• Greater value, through a range of round-the-world products, including the launch of Oneworld Explorer fares, with prices from £860 pounds.

Oneworld has a similar management structure to the Star Alliance with a headquarters for the grouping and its member in Vancouver (Canada) called the “Management Company’s Leadership Team” headed by Peter Buecking, the alliance’s Managing Partner (at the time of writing spring/summer 2001).

Airlines aligned in groupings such as the Star and Oneworld have the power to manipulate and are actually manipulating the demand side e.g. corporate clients, economy and tourism customers in order to gain larger market share and profits. They do this by differentiating their products, for example internet access on long-haul to all passengers and on short haul only to business class, better check in facilities, choice of menus available, improved business and first class, increased benefits for Frequent Flyer Programmes to name some.

Also, in order to enhance their competitiveness airline groupings such as Oneworld and Star alliance have implemented a variety of activities such as Frequent Flyer Programmes, corporate firm loyalty schemes, super-commission to travel agents to sell their products, and special and competitive round the world trip fare to members of the airline grouping, according to industry sources e.g. Oneworld factbook, Star alliance factbook, ATW, AEA, IATA.

Therefore, by differentiating their products or services even if they are similar in terms of offers, airline groupings such as the Oneworld and Star Alliance can make use or are effectively using their market power to manipulate customer demand with the help of tools mentioned above, and restricting the choice of carriers on point to point destinations.
Furthermore, having a corporate management structure with a chief executive, sales and I.T structure will ensure a proper implementation of strategy that concerns the airline grouping e.g. Oneworld, and an effective use of the new routes and new market power that the grouping has acquired through joint-venture, code-sharing, marketing agreement, and equity based, and stakes in airlines.

In addition to this, airline groupings such as Oneworld can manipulate the feeder market e.g. point to hub or domestic market by using the members regional or affiliated carrier to push aside potential competitors and to some extent to make the market even more concentrated and difficult to enter. According to Brueckmen and Spiller (1991, 1994) "by lowering route competition, airlines reap density economies in that market segment". What is described below will prove the point that I am trying to make regarding manipulation of customer demands by airlines.

As mentioned in this Chapter, a Frequent Flyer Programme is an important tool for airline groupings such as Oneworld and Star Alliance. Oneworld members have been able to earn miles for their program whenever they travel on an eligible flight operated by a Oneworld airline (British Airways factbook, 1999; Oneworld factsheet, 2000). According to British Airways (BA factbook, 1999).

“These miles count towards achieving higher levels of memberships status in the Frequent Flyer Program of the passenger’s choice and can be redeemed on any eligible flight operated and marked by the Oneworld alliance airline”. The same applies to Star and the other airline groupings.

This shows, in other words, that the Frequent Flyer Program is there not really to the benefit of passengers, but to the benefit of airlines and particularly airline groupings that make use of this marketing tool to restrain the choice of routes and carriers that potential passengers can use. In fact, if a passenger wants to redeem her or his miles, she or he can use them only on a specific carrier that bears the Oneworld logo or logo of one of the airline members, depending on the level of agreement.
This is even so if the airline grouping fares are a bit more expensive than the competitors, otherwise the mileage points and free perks that go with the Frequent Flier Programme can be lost. By using this kind of marketing tool, airlines can influence the level of competition on certain routes such as the transatlantic routes, long haul, domestic routes in the North American market, and intra-European flights that involved long distance routes and increase customer loyalty.

To strengthen my point, in an article by Laura Bly (2001) and published in the USA Today newspaper, it is stated that:

Frequent flier plans do a masterful job of steering and retaining passengers, says Kevin Mitchell of the Business Travel advocacy group for increased airline competition. And, he adds, in a rapidly shrinking marketplace, they have remained increasingly powerful tools for stifling competition.

In the same article, another example is given on how frequent flyer programmes can be a determinant for the main airlines and their grouping to retain customers and pushing aside the competition:

Fares plummeted when low-fare upstart Pro-Air launched a service from Northwest Airlines’ Detroit hub in 1997. Corporations tried to direct their employees to book flight through the newcomer; they (staffs) came up with a laundry list of why they did not want to fly ProAir. What it really came down to was loyalty to Northwest’s frequent-flier program”.

The powerful tool that the Frequent Flier Programme is for airlines and alliances such as the Star, Oneworld, and the changes that are happening in the North American market e.g. United Airlines and USAir merger and American Airlines and TWA merger, may create a sort of monopoly on some of the most profitable routes e.g. point to point and feeder and to some extent Hub to Hub routes.
Some governments do not consider what is described above, such as the USA and Europe, as anti-competitive, in fact it is purely and merely a marketing tool used by airlines to ensure customer loyalty. Therefore, the risk for carriers to see their Frequent Flier Programmes put under scrutiny is non-existent, ensuring the survival of this marketing tool. Furthermore, and according to Bly (2001) "If you did away with frequent-flier miles, you can bet fares wouldn't go down".

In fact, as mentioned above, it is simply a cost-efficient form of advertising. In addition to this, the cost for an airline is minimal when passengers redeem their Frequent Flyer Programme miles.

According to the source mentioned above and published by USA Today and based on a frequent fliers study it is stated that:

frequent-flier programs are in no danger of outliving their usefulness to airline companies, notably credit card issuers, buy miles from the airlines for 1 to 2.5 cents a mile. American Airlines made at least $1 billion that way last year, Petersen says. Not bad, considering it costs airlines only about a quarter-cent a mile to redeem an award seat, says Rick Barlow, president of Frequency Marketing, a Cincinnati firm that tracks loyalty programs (Bly, 2001).

What is written above shows the potential that airlines and particularly groupings of airline alliances may have on the future shape of the airline industry.

If you take into account the two groupings that have been analysed, the Star and Oneworld alliance, the ramification of their agreements e.g. code-sharing, joint-venture, marketing agreement, joint headquarters, staff sharing, price setting etc. and their combined frequent flier programme as well as their world wide route networks, the potential to see a monopoly and decrease in competition and new entrants is real. Especially now that those frequent flier programs are integrated into the agreements among carriers.
To reinforce the above statement, another example taken from the same industry source previously described, will demonstrate how important the integration of frequent flyer programmes into the airline alliance and the effect on competition and new entrants is:

Two outfits founded last year, AOL AAdvantage and MilePoint.com, let program members cash in miles for discounts on, or purchase of, products and services. Points.com, which launched last month, allows mileage transfers from one account to another, albeit for hefty exchange fees. The Internet also is home to FlyerTalk.com, the freewheeling message board populated by mileage junkies such as Carol Bruno. Bruno ponders over postings describing the latest promotions and makes "mileage runs" to maintain her US Airways elite-level status. She used a free upgrade on a US Airways flight last December from Washington, D.C., to Paris. The trip cost her $500, but netted 30,000 miles with bonuses — a $600 value, using the standard formula of 2 cents a mile. The catch: She never left the Paris airport. She bought the ticket only for the miles (Bly, 2001).

As said it is a known fact that travellers often select airlines based on the loyalty program. In other words, they choose those carriers which offer them upgrades in business or first class, free trips, access to airport lounge etc.. However, if you take into account the USAirways and United Airlines mergers, that will fly to 170 destinations and have 50 million Frequent Flyer Programs and American Airlines and TWA merger would go to 170 cities and have 52 million F.F.P (Washington Post, 2001), the risk of seeing the concentration of routes and reduction of competition is real.

In fact, the manipulation of the demand and the increase of perks to their “loyal customer” may determine the future structure of the US domestic market e.g. point to point and point to hub and to some extent the future of transatlantic long-haul.
Even though new entrants will have the opportunity to fill some of the slots or routes made available by the mergers, these new entrants would not be able to compete, not in term of fares, but in terms of Frequent Flier Programme tied up in the mergers and in their alliance groupings. In addition to this, if you take into account the other advantages that have been described in this chapter for passengers joining the Oneworld alliance to name one, e.g. bigger route network, easy access to gates, access to lounge rooms etc, the competitive advantage some airline groupings have is becoming predominant and can be hard to follow by other carriers.

In other words, it looks like a ‘join or die’ strategy for a non-aligned carrier, if they want to survive or still be competitive, unless you have a niche or cherry picking strategies such as Virgin Atlantic. Some may say, that what has been described above concerns the North American market only; however, whatever is happening in the North American market has repercussions in the European and worldwide markets. Even though it is on a lesser scale, however, when some of the most powerful carriers are in Europe e.g. British Airways and Lufthansa, and are allied with two of the most powerful airlines in the world, the effect will be felt in Europe also, particularly for the Transatlantic and Asian long-haul.

To emphasise my statement, in a study based on U.S. domestic airline alliances by Clougherty (2000), it is estimated by the GAO (1999) that “aligning current competitors can decrease competition for 30 million domestic passengers (28.4 million find two competitors aligning, and 1.6 million find four competitors aligning), and increase competitors for 22 million domestic passengers (where allied airlines serve new markets)”. This shows that airlines involved in groupings such as the Oneworld or Star alliance may have a huge potential to dictate the pricing structure of the competitive environment in which they are competing.

Even though, as it is stated above, it creates competition on new markets, it does not mean that the competition amongst new carriers will go wild.
In fact, the competition amongst the carriers may last until the non-aligned carrier or low-cost/no-frill on the same new routes goes bust or decides to move to a less competitive market. Therefore, the competitive or healthy balance on the new markets or routes may become void, the risk to see competitors not competing against each other is real and may already occur.

According to economists contacted by the GAO for a study based on U.S. domestic airline alliances, “they believe that alliances will hinder price competition as airlines will increasingly recognise their interdependence and more readily engage in tacit cooperation” (Clougherty, 2000).

Scholars such as Kim and Singal (1993), Dresner and Tretheway (1992), Werden et al. (1991), Borenstein, 1989 and the GAO (1998), extracted from a study based on U.S. domestic airline alliance (Clougherty, 2000), support the fact that it is the number of competitors that determine airline fares. Most of the scholars mentioned estimated that the loss of one competitor increases fares by approximately 10% on average (Clougherty, 2000).

As it has been mentioned in past chapters, it is a known fact that the airline industry suffers from low margins, due to intense competition, cost pressure, regulation and deregulation laws that stop carriers from merging and making huge profit as in other industries. Therefore, airlines do not have the choice to go on their own anymore, unless you have a cherry picking strategy or do not want to become a global airline. However, knowing that most carriers do not have enough of a margin at their disposal to control some of the most important elements of their cost structure (e.g. see Chapter I), the solution they have left is to find a suitable grouping of carriers. As mentioned in this chapter the only way forward at the time of writing (spring 2001) is to enter into a grouping or alliance, where the advantages and savings that can be made are enormous.
When combining all the elements or advantages that have been described in this chapter, while belonging to a grouping and reducing the overlapping of charges, the return and saving for the carriers involved can be very high. Furthermore, members of the alliance grouping and their affiliations can feed additional traffic into an airline's networks, thus increasing traffic density and generating lower average costs (Clouherty, 2000). However, the effect on the competition can be deadly. In fact, "most of this additional traffic, however, will be diverted from other airlines that experience reduced networks density" (GAO, 1999; Clougherty, 2000). As the analysis of the two groupings shows, both groupings have built up a circle of partners in order to be able to reach as many profitable markets as possible.

Together, members of the groupings operate a meshed network that complements or extends each other's routes and avoids an overlapping of routes and to some extent reduces competition. In fact, the analysis shows, that thanks to these networks, partner airlines are able to offer to passengers a guaranteed connection to a large number of smaller European, North American, Asian, South American destinations, in addition to better services mainly to premium customers e.g. businesswomen/men, corporate clients, executive travellers, better integration of Frequent Flyer Programs and additional perks.

However, both airline groupings have an advantage compared to the other groupings. In fact, the Star and the Oneworld have four of the most powerful airlines involved with them who have some of the most efficient long-haul route networks e.g. British Airways, Lufthansa, and for the most important domestic routes e.g. United Airlines and American Airlines. Also, their hubs spearhead some of the most important countries and their affiliated members give them an important advantage, particularly when they are used as a feeder for their main long-haul or when there is a need to stop new entrants. In addition to this, some of the members e.g. Lufthansa and SAS in the Star Alliance have anti-trust immunity and have already set up a management structure that deals mainly with the grouping's relationship.
Furthermore, the stability of the two groupings, and the power of some carriers e.g. Lufthansa and United Airlines over some members, particularly in the Star alliance and to some extent Oneworld, gives them the competitive edge that is needed to be ahead in such a competitive and ever changing environment.

The three other key alliance groupings as of spring 2001 are depicted in the three following tables:

**Table 20: The Qualiflyer alliance**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>SWISSAIR</td>
<td>11.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SABENA</td>
<td>8.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TURKISH AIRLINES</td>
<td>9.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUSTRIAN AIRLINES GROUP</td>
<td>4.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAP AIR PORTUGAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AOM</td>
<td></td>
<td></td>
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<tr>
<td>LOT</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Crossair</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portugalia</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Air Littoral</td>
<td></td>
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<tr>
<td>Air Europe</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Volare Airlines</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Sources: AEA industry report 2001

**Table 21: Wings alliance**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>50.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KLM</td>
<td>15.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALITALIA</td>
<td>24.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continental</td>
<td>41.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: AEA industry report 2001
Table 22: SkyTeam alliance

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR FRANCE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>105.3</td>
</tr>
<tr>
<td>AeroMéxico</td>
<td>33.5</td>
<td>10.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: AEA industry report 2001

N.b. Alitalia was added to the Sky Team in July 2001

To strengthen what has been described in this chapter and the effect of airline competition and alliance grouping, the following table shows the market share of some of the most important routes operated by the five groupings described above. However, it is important to understand that due to the changes happening in the airline industry, the following table may not be as accurate as it should be.

Table 23: Market share of the 5 main airline groups

<table>
<thead>
<tr>
<th>Route</th>
<th>Alliance</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston-Amsterdam</td>
<td>Wings,KLM/NW</td>
<td>100%</td>
</tr>
<tr>
<td>Chicago-Calgary</td>
<td>Oneworld,AA</td>
<td>100%</td>
</tr>
<tr>
<td>Chicago-Frankfurt</td>
<td>Star,UA/LH</td>
<td>83%</td>
</tr>
<tr>
<td>JFK-London (Heathrow)</td>
<td>Oneworld,BA/AA</td>
<td>61%</td>
</tr>
<tr>
<td>JFK-Vancouver</td>
<td>Oneworld,AA/CX/Canadian</td>
<td>100%</td>
</tr>
<tr>
<td>JFK-ZRH</td>
<td>Qualiflyer,SR/DL</td>
<td>100%</td>
</tr>
<tr>
<td>LHR-Hong-Kong</td>
<td>Oneworld,BA/CX</td>
<td>84%</td>
</tr>
<tr>
<td>Miami-Frankfurt</td>
<td>Star,UA/LH</td>
<td>100%</td>
</tr>
<tr>
<td>Minneapolis-Amsterdam</td>
<td>Wings,NW/KLM</td>
<td>100%</td>
</tr>
<tr>
<td>Newark-Milan</td>
<td>Wings,Continental/KLM/AZ</td>
<td>100%</td>
</tr>
<tr>
<td>San Francisco-Toronto</td>
<td>Star,UA/Air Canada</td>
<td>100%</td>
</tr>
<tr>
<td>Washington D.C.-Frankfurt</td>
<td>Star,UA/LH</td>
<td>100%</td>
</tr>
<tr>
<td>Washington D.C.-Toronto</td>
<td>Star,Air Canada/UA</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Back Associates, Inc. Toronto
What has been described so far shows that airlines exploit network efficiencies in a number of ways in order to improve their own competitive position, reduce competition, improve their market share and to some extent benefit passengers. However, as argued throughout this chapter, passengers do not always reap the benefits of the cost savings that airlines are making.

In addition to this, airlines do try to manipulate customer choice, by using powerful gimmicks such as frequent flyer programmes that make customers think that they get the best deal possible when it is not the case most of the time, unless you are a corporate client, who pays a premium for the best service possible.

According to a report published by the AEA (2000) “Airline alliance and competition,” it is stated that airlines exploit network efficiencies in different ways, such as:

- By developing an efficient network of routes via one or more hubs, an airline is able to offer many more destinations to its customers and achieve a higher volume of traffic on individual routes than would otherwise be possible
- A higher volume of traffic on an individual route enables the airline to achieve more efficient aircraft and crew utilisation, thereby lowering unit costs
- Higher traffic volumes also enable the airline to use larger aircraft and offer higher service frequencies
- The airlines have greater flexibility to respond to changes in the market, for example by adjusting schedules in order to create new connections

An interesting study published by Gialloreto (1989) “in Strategic Airline management: The Global War Begins”, states the possible effect of the share of resources and synergies and the combination or incorporation of the strengths of the carriers involved in the alliance grouping. In the study, Gialoretto (1989) uses the hypothetical fusion of three big carriers such as KLM, American Airlines and Singapore Airlines, called Royal Ameripose.
He states that the following synergies and combination of assets when added together would give an airline an incredible sustainable advantage. The synergies that could be raised and combined when added together to are:

1) Rationalise routes to provide a tight ‘no overlap’ worldwide network
2) Exploit each predecessor’s route system to maximise system-wide feed.
3) Incorporate the merged carriers in the country with the lowest tax base and take advantage of that country and laws when purchasing aircraft
4) Locate most labour in lowest-wage country
5) Standardise aircraft types to cut maintenance costs and spare parts inventories
6) Concentrate aircraft maintenance in one or two main low-cost labour centres
7) Standardise on group CRS to create global CRS system
8) Use joint marketing tactics and take advantage of group frequent flyer programs.

However, and as mentioned in Chapters I, III, VI, due to ownership regulation, nationality, and traffic rights, as well as the way carriers are seen by the politicians e.g. extension of foreign policy, business strength, it may take some time before seeing three of the most powerful carriers entering into a merger. The interesting factor is that you can already see, to some extent, some of the outcomes suggested by Gialloreto.

The airline globalisation process is being driven by economic demand and airlines’ desire to enhance their competitive positions through better access to as many markets and passengers as possible in the most efficient ways (DOT, 1999)

In other words, such grouping may reduce the “possible effect of competition” on hub-to-hub or point-to-point routes. However, due to the fragility of some of the airline groups and the changes that may occur in the group, the risk is minimal for the time being, but the industry is moving towards a market consolidation and a reduction in the number of competing airlines.
Even though the way the groups are organised and managed is not as efficient as if they were merged in one company, the scenario offered by Gialloreto could show where the industry is going or how the industry will shape in the next 10 to 20 years.
Chapter VI

6.0 Interview analysis

Originally I intended to do a study base on secondary materials, industry documentation and personal knowledge. These were very rich and well documented, as has been made clear in the methodology section of Chapter I. I was however encouraged by my supervisor to see if it were possible to get some interviews with senior people in the industry.

We were both doubtful about how successful this would be, but decided the attempt should be made. In the event we were extremely lucky in our pursuit of interviews with high status people in airlines. We interviewed some very senior people, typically one rank below the CEO, usually an executive mainly responsible for the alliances, and this from several airlines, as well as a selection of airport owners and operators, and representatives from the regulatory authorities.

6.1 Structure and execution of interviews

As indicated above the interviews were mostly conducted with senior executives from rank-down-from the CEO level. In the case of interviews with airport managers the interviewee was usually the CEO.

The interviews were structured in the sense of exploring the same set of pre-determined themes with each set of interviewees, in the same approximate sequence. At the same time the structure was flexible enough to explore “targets of opportunity”, that is unprogrammed issues that arose which clearly merited examination. For example, a senior executive of one of the European airline introduced the theme of national sentiments (likes and dislikes among countries) and extreme cases of national self-interest pervading the choice of alliance partners and impacting on merger and acquisition in the industry.
This was clearly worth pursuing! Also, the sequence of predetermined themes differed somewhat as between alliance member airlines, for example British Airways and Air France, and non-aligned airlines for example KLM and Virgin Atlantic. The themes pursued in the interview of course derived from our hypothesis concerning the working out of competition within the resource-based view paradigm.

So the airline representatives were questioned about:

- Their perception of the competitive climate in the industry.
- Recent industry developments.
- The anticipated future of the industry, including likely merger and acquisition activity.
- The scope for wresting competitive advantage through differential leverage at airports.
- Their view of strategic alliance system, whether or not alliance members, the advantages confined by alliance members, and the implication of the alliance system for the travelling public.

All the interviews were taped-recorded, with the consent of interviewees. I endlessly replayed the tapes and made notes on the content to help the development of the arguments central to this thesis. On several occasions my supervisor sat in on interview, made independent notes and I had the advantage of an immediate post-interview discussion of key learning point.

6.2 Limitations

My thesis is about the competitive proactivity of airlines and in particular about the manoeuvres that are open to the bigger and stronger airlines. In consequences the emphasis has been on the decision, actions, tactics and strategies that airlines have pursued in a very conscious way. The interviews, however, were a timely reminder that there are limitations to airline proactivity, there are things which airlines cannot control, whatever their size or market dominance.
In fact, the airlines cannot really control customers in terms of their wishes and expectations. They can offer a product or even a route network that is considered by the carriers to be better than that of their competitors, but this does not automatically guarantee success.

For example, in terms of Hub and Spokes, it is a concept that is economically and operationally quite efficient for the airlines, but may not suit customer wishes; they would rather fly direct to their destination than having to change at one airport to take the connecting flight to their final destination.

For example, for passengers wanting to fly from San Diego to say Jacksonville (Florida), they will have to fly first to Los Angeles, then from Los Angeles to Hartsfield (Atlanta) and from Hartsfield to Jacksonville. In addition to this, when you have a hub and spoke strategy the level of punctuality is very important, if you are a hub carrier and passengers transfer. In fact, if passengers miss their connection, the airline will incur high costs e.g. rebooking, hotel costs, food vouchers, etc and its reputation among customers may not be too high, particularly with corporate passengers.

This can be a real problem and to some extent a loss making exercise for the airlines, due to the fact they do not have full control of such situations and they are limited in what they can do when the above problem arises. For an airline the more flights you have coming into a hub, the more go out, and the greater the possible number of connections and therefore the more things there are that can go wrong.

Also, it is all self-fulfilling and the higher the number of connections the more successful your hub is going to be. But, if your hub is in the wrong part of Europe or if the slots made available even at some of the most important airports throughout the world do not offer a high return, the chances of success are very slim, and most of this is beyond the airline’s control.
As one of the senior managers interviewed put it, a hub has to be in the centre of geography and has to be able to feed at 360 degrees e.g. flights coming in and going out from all the directions, as well as being in an important catchment area. So with regard to the 360 degrees argument Copenhagen qualifies but Lisbon, with flights mainly to the north and east, does not. Or with regard to a country’s economic centre of gravity, Manchester for example does not qualify, but London Heathrow clearly does.

Another important point or limitation that came out in some of the interviews is that customers want choice. They do not want to be restricted in their choices, they want to fly with the airline they booked, and not have the surprise of flying for example with Northwest, when they bought a KLM ticket. Passengers need to be informed of such situations and during the interviews most of the senior managers acknowledged this fact, and admit that there is still some work to be done.

The ‘earn and burn’ phenomenon e.g. the frequent flier programmes, has become an important factor in the way airlines attract, retain, compete and implement strategies. The phenomenon developed to such proportions that it has even surprised me during the interviews. The ‘earn and burn’ strategy used by carriers will distort passenger choices, particularly when travelling and earning miles and spending them. The distortion of customer choice is even more important when airlines involved in frequent flier programmes offer different types of cards such as platinum, gold, ruby, executive frequent flier cards. These cards can distort even further the choices of passengers and competition, in fact, some customers, mainly business travellers and their relatives, can earn further mileage when flying on one particular airline, even though it is more expensive.

The advantage they have can go from upgrade from economy to business or first, from a cheaper to more luxurious hotel, buy one get one free deals plus an extra 100 miles on your card. Also, additional miles can be gained by travelling with, for example, an airline that is a member of the Oneworld instead of the Star group and access to lounges at airports throughout the world. People go to some trouble to make use of this facility.
In addition to what is written above, it has become quite clear from the interviewees that the main reason airlines were locking their passengers into their own frequent flier programmes was due to the fact that most airlines were and still are trying to get global coverage. This means that nowadays, loyalty is becoming much more important than it used to be, and a lot of airline customers corporate accounts are now global.

Large corporate organisations are increasingly better at shopping around for lower fares or additional benefits than are most of the leisure travellers, and again these are facts, which confront airlines in a limiting way.

Furthermore, senior managers that were interviewed found that unlike the old days, when business travel was distinguished by product and convenience and schedule and was relatively price insensitive, and unless the value of the journey far outweighed the value of the ticket, they would take the trip anyway. That means that there was high price insensitivity and that was also largely true for the leisure traveller. As has been acknowledged by all the senior managers interviewed, the global nature of buying has now transformed the way business and leisure travellers react and their former price insensitivity has turned to price sensitive, and this trend has been re-inforced by the economic slowdown in the West from mid 2001.

Therefore, most airlines created a customer loyalty scheme, in order to attract and retain the customers you already had. In fact, according to my findings and views of the senior managers you cannot induce loyalty unless you can satisfy most of your customer’s requirements. To do so, airlines had to extend their network and type of services to make it as complete as is necessary.

The loyalty scheme or frequent flier programme does tend to link business and leisure travel. In other words you earn it on business and you burn it on leisure; by doing so the airlines have managed to integrate this concept in their global strategy. The whole world has become much more integrated in terms of the global market and much more competitive, even for the high yield business sector.
However, to make it work most airlines had to find ways around the regulatory constraints and they did it through so called or pseudo mergers and varying degrees of co-operation depending on regulatory approval, as well as through pressure, often on the edge of legality, on new entrants.

This factor, is developing even further, according to one interviewee, and might constrain even further the choices the passenger will have in future, and force airlines to develop it even further in order to try to be ahead of the competitors, especially the medium size or low-cost airlines, particularly in an economic downturn.

This might limit the way airlines deal with those passengers, as you cannot take back what you have already offered or radically change the scheme, but on the other hand you have the assurance that you will not lose them, the passengers. As one senior manager mentioned in an interview “do you really think a passenger that has accumulated thousands and thousands of miles would be ready to give up everything and his privileges and turn to another carrier”. If you multiply by a hundred or even a thousand such comments, and offer to the frequent flier cardholder the choice to accumulate the points within the Oneworld or Star Alliance groupement, the result for the rest of the airline industry can be deadly.

This shows how carriers have been able to distort the choices passengers have, entirely legally just by using a simple marketing tool, and it has been acknowledged throughout all the relevant interviews undertaken during the research. Some of the senior managers used even stronger words to make clear how important such schemes were for the airlines. In other words no sympathy any for airline left behind, either you are with one of the frequent flier programmes or you die.

This tool was just used primarily as a way to retain passengers but now it has become a very competitive resource in that it helps airlines to know their customers. For example, how many times they fly, what they eat, what they like, how many children they have, whether they are married and so on.
But air miles have become an addiction for passengers, particularly for passengers in the USA and to some extend in Europe. As one of the senior managers interviewed put it, if you do not have a frequent flier programme, the chance of having premium passengers travelling on your carrier are very slim and premium passengers are vital to an airline’s success.

The airmiles/frequent flier programme issue is really quite paradoxical. On the one hand it is an initiative introduced by the airlines. It serves them well in the sense that:

- It attaches passengers to them
- It causes passengers to self-limit their choice of airlines to maximise their airmiles
- It generates useful data on customers as suggested above

At the same time it is a fact that drives airlines into alliances to provide a broader base for the frequent flier programme and to satisfy the business travellers insatiable hunger for airmiles. So while the airlines thought up the scheme in the first place, it now constrains their behaviour, and they could not contemplate withdrawing these schemes. It is for this reason that we have placed the discussion of frequent flier programmes in this section dealing with limitations and situational givens faced by airlines.

Another interesting point that came out of the interviews is regarding the catchment area where an airline has its base. Airlines can sometimes control the catchment area in a way so to limit the number of airlines using the same airport; for example, Heathrow with British Airways, Virgin and to some extend BMI, who all have control over premium passengers due to Heathrow’s proximity to London and its surroundings. Frankfurt in Germany with its flag carrier Lufthansa is one of the important economic centres, and Zurich Airport in Switzerland where Swissair has a stronghold on the departure and arrival slots in one of the most important financial centres.

At the same time having position at an airport in an economic centre of gravity as with our London Heathrow and Zurich examples, may work both ways.
It is a plus if the airlines is courting business travellers but it may be a minus for leisure travellers who may find such airports expensive or difficult to access.

In addition to this, where a strong airline has presence at a key airport, there is also the possibility of using persuasive power to force a possible competitor out of business, and using the size of your company (airline) to force suppliers or ground handling and even airport management to make concessions and generally to you what you want. As one of the senior managers interviewed put it a good hub has to have the physical ability to move passengers through it, but the first criterion is that it is in a strong catchment area. So the right catchment area is of great importance in order to fill your plane, and having a strong position in terms of premium passengers is even better.

Airlines will typically do whatever it takes to keep the position they have in an important catchment area, within the law or even on the edge of what is considered legal. At the end of the day, you can have a strong business plan, a new fleet and well-trained workforce, but if you are at the wrong place in terms of catchment area and slot value, you are not bound to succeed e.g. Swissair at Geneva airport, or British Airways at Gatwick airport

However the interviews revealed that airlines could not or do not really have control over the airport infrastructure, the ground congestion, the air traffic congestion and the air traffic control capability. In fact, having an important stronghold and a good catchment area is not as valuable if the airport infrastructure does not follow. Airport access is an important factor for the airline and unfortunately according to some of the interviewees, airlines do not have much control over it. However, given a sympathetic government, you may increase your chance to have your say or control over it, as with Air France and the French government. Others airport operators such as BAA have recognised the importance of adequate transport infrastructure in and out of the airport.
For example, the Paddington Express was built by the BAA in order to facilitate access to the airport from the centre of London, as was the RER from Paris to Charles de Gaulles airport. Other operators have built train stations in the proximity of the airport e.g. Schipol at Amsterdam, Geneva airport, Zurich and Fiumicino in Rome, where the airport station has been made part of the national rail network.

Whatever the size or importance of the airlines, what came out of the interviews was that airlines cannot control the political climate or external environment that may impact upon the running of a carrier. However, they can lobby, put pressure on government in order to speed things up, such as airport development e.g. Charles de Gaulles, Malpensa in Milan, or getting restructuration funding e.g. Air France, Iberia, Alitalia, and putting pressure on the civil airline authority to slow the process of allowing new entrants to their domestic market. Unfortunately for some of the senior managers from the European airlines that were interviewed, it only works with some governments that see their flag carrier as an expression of national pride and do not really take account of European Union directives when the interest of their airlines is at stake.

The result of such involvement can be seen in state aid e.g. Air France, Iberia, Alitalia, Olympic Airways as beneficiaries, and unfair market competition on some of the routes that are served by those airlines, as well as by route congestion. Do not forget that European civil aviation is a fragmented industry and the number of flag carriers or main carriers and routes available is out of proportion to the number of passengers, never mind the number of secondary airlines and new entrants to the industry.

Another very important point that came out of the interviews is about what country an airline is based in. In fact, in order to be successful you need to have a very strong domestic market to feed your hub and intra domestic and long haul destinations. If you are an American airline you have a competitive advantage that is not negligible compared it with the European airlines.
The US domestic market is huge and vast when you compare it with Europe and the level of competition with other means of transportation is minimal due to the long travel distances in the USA. While in Europe, the length of travel is relatively short, so airlines compete against the train, car, bus, boat and coach.

Only a few European countries or EU members have a large enough domestic market to sustain an efficient and profitable feed for their intra domestic and long-haul e.g. France, Italy, Britain, Germany, and Spain to name the most important.

Others such as Switzerland with Swissair and Holland with KLM, who do not have a domestic market of sufficient geographic size, are struggling and in the case of the former may be going out of business. The only way to survive for some of the carriers interviewed is through strategic alliances, acquisition, or sale of shares to a bigger airline e.g. Virgin and Singapore Airlines. Again these underlying facts of economic geography are something over which airlines have no control.

The way some of the big airlines are perceived by the governments, politicians and European Union is also beyond the airlines’ control. In fact, in looking at the geopolitical consensus British Airways is seen as a predatory carrier due to its so-called high number of slots at Heathrow airport and supposed monopoly on some of the most profitable routes to the USA and Asia. But Air France, Delta, Lufthansa are not so regarded even though their slot share at their respective airports is higher, and in the case of Air France the ratio is even stronger, particularly due to the kind of route monopoly they have in their domestic market.

However, what came out of the interviews quite strongly was that the reason why British Airways was always picked as an example, was due to its very high yield slots to the USA and the inability of competitors to match the performance and profitability of British Airways at Heathrow airport. Another reason was the congestion problem at Heathrow and the non-availability of decent and adequate slots for all of them.
Our general point, however, is that airlines are confronted with both political and popular perceptions of them that are not always accurate or fair, as with the British Airways/Heathrow example.

6.3 Threats

The bigger and stronger airlines that have been the focus of our thesis have also been confronted by the rise of the low cost or no-frills airlines. All senior managers interviewed and all airlines in Europe have agreed that these cheap airlines are here to stay on the point-to-point routes due to their low cost structure. They have a strong and simplified operational structure and are aiming at big mostly leisure markets. Due to their low cost level they can compete well and have a good economic image. However, traditional airlines tend to have generally larger networks and higher frequency levels, and that is considered as an advantage for the main airlines.

Also, main airlines fly to airports where there are more possibilities, high numbers of flights and better ground transport. On the other hand, low cost airlines fly to secondary or small airports, where costs incurred are lower than those of the main airlines, and their cost structure lower, e.g. smaller planes, cheaper staff and small route network. Therefore tickets are considered as cheaper than the main carriers, a concept that is denied by some of the senior managers interviewed, who said that they do offer the same price and facility for the same destination and higher frequencies, which I would happily agree and confirm.

In a way and according to some of the interviewees the European industry has been reconfigured around them and some airlines have taken the path of the low cost market e.g. KLM with BUZZ. Already some low cost airlines have had a profound effect on airports such as Easy-Jet at Geneva airport with 28% of the market, or GO, BUZZ, and Ryanair at Stansted airport. According to some of the airlines interviewed low cost is not seen by them as a huge threat.
Even though some may think to a certain point that low cost or no-frills canabilise passengers from the main airlines, they act as an addition to the offer and attract even more people to the flying industry.

However, it is important to keep in mind that the so called no-frills/low cost carriers do not intend for the time being to compete against the main airlines on the point to hub routes. In fact they still considerer themselves as niche carriers due to their cost structure and the secondary airports they use, also due to congestion and slot availability at the main airports, such that it would cost them and the passengers more to fly from the principal airports.

As one of the low-cost airline senior managers interviewed put it, to be able to compete with a main airline, you need to have more flexibility in terms of ticket conditions, higher flight frequencies, a good ground transport facility, and possibly better connection time with primary airports. This means, low cost carriers will have to review their cost structure and be ready to charge more and change departure airport if they intend one day to compete against the main airlines in their territory.

Finally, no airlines whatever size they are can predict what will happen when a terrorist attack or war occurs. They do not have any control over such events, the only responsibility they have is to ensure that safety procedures and security checks are undertaken properly by the airport authority, and that flights are suspended or rerouted to avoid the epicentre of the war. The results of terrorist attack and war can be devastating for the airlines and for the world economy in general, not only in terms of human loss but also in terms of airline image, efficiency, and profitability. The results can be measured in terms of loss of earnings, loss of jobs not only in the industry, but also in the industries surrounding the airlines. Furthermore, forced restructuration, government assistance e.g. funding, tax relief and forced bankruptcy e.g. Swissair when banks decided to turn off the tap, in order stop their losses, may ensue.
Not only can the above events bring some airlines to their knees, but these can also bring well-run and profitable carriers to the brink of bankruptcy; as has happened during the 1991 Gulf war and has been happening since the terrorist attack in New York and the start of the war in Afghanistan.

The effects or consequences of such events, are the acceleration of airline bankruptcy e.g. Swissair, and the decrease in the number of airlines throughout the world, but particularly in Europe, which would otherwise have not happened. Or would only have happened if new regulations on airline ownership or merger had been brought in by the European Commission.

Also, airlines considered financially strong e.g. British Airways, Lufthansa, Air France, KLM who started the restructuring process even before the attack in New York and the war in Afghanistan, still risk bankruptcy if they do not keep on reducing their fleet size, reducing their staff, and running unprofitable routes. However, it does not mean that routes released by the main American, Asia or European carriers will be taken over by other airlines or no-frills/low cost carriers. On the contrary some of the routes may never be served again due to the high costs that even a low cost, regional carrier would incur, when leaving from a high cost hub airport.

Therefore, the likelihood of seeing a reduction of principal airlines is real and has already occurred, but in no way is it a consequence of strong competition, but due to the geopolitical causes and to the general economic downturn, (as well as war and terrorist attack). Even thought such events may lead to a decrease in airline fares in order to entice passengers back to flying, it will not be sustained in the long term. Fares will increase again, and the risk of less competition between airlines and predominance of mega-carriers will be realised as Gialloreto (1988) and others have argued.
6.4 Confirmation

The major result of the interviews with airline and airport executives, however, has been to confirm and sometimes to elaborate, earlier findings. Findings that is, in the form of inferences from industry sources and data in the public domain, sometimes supported by personal industry experience. This confirmation of earlier findings has been particularly true regarding the issue of strategic alliances, central to our thesis.

Strategic alliances amongst airlines throughout the world have been a very interesting and tricky part of the interviews held with the senior managers. What came out of it, confirms my view, that these alliances are largely self-interested. In fact, alliances are not primarily aimed at offering better service to customers, though they do to some extend offer advantages e.g. better route networks and frequencies that were not available to the customers before.

Senior airline managers depicted the alliances as both a way to promote control of customers and to offer to these customers greater choice, albeit within the confines of the alliance group.

The interviews confirmed that alliance agreements do not lead to price reduction, as some may have thought. In addition to this, alliances have increased the power of airline members of alliances relative to those airlines that are 'non-aligned'. The effect of such power is the marginalisation of those that are not involved in the alliances and which in turn put pressure on customers to ensure that it is their carriers or partners that are used instead of a non-aligned airline or even relatively uncommitted alliance members.

The main aim or one of the main aims for airlines to get into an alliance is achieving the global coverage according to most of the interviewees.
Alliances are mainly schedules, co-ordination and destination, as a company you cannot offer your customers seamless travel to any place in the world. Part of the product side in an alliance is to reach markets that are difficult to sustain on your own and then as you get deeper into the alliance, that is, gain anti-trust immunity, you can co-ordinate schedules, and you can optimise the network jointly rather than separately.

As has been acknowledged by all the interviews and other researchers, you cannot grow organically anymore, and it would cost too much to do so.

Therefore joining an alliance can help you to achieve such an aim for less money, and the benefit for the main airlines that want to become a global carrier outweighs the disadvantages. Also, carriers such as KLM to name one who has a small market share, 2-3% outside Holland, can become a bigger player together with a partner in a country where there is great potential e.g. KLM and Northwest in the USA or KLM and Kenya Airways in Africa.

As one of the senior managers of a European airline mentioned, once you do get deeper into a relationship with others airlines you can start managing things like the network jointly, so you have the opportunity to optimise operations and to take out duplication in your overheads and route network. So it is not only about schedule and destination, it is also about market presence, which increases when you have long haul and higher frequencies.

However, most of the senior managers interviewed agreed with the idea that airline alliances look better from the outside than from the inside. There is no alliance brand yet, that is better than that of the better individual airlines, due to the synergies and integration problems that have arisen the past few years e.g. cultural problems, lack of identity, loss of power within the group and regulatory barriers. This can lead to misinterpretation and misunderstanding by the customers and by the airline staff as to the purpose of getting into an alliance, and the consequence can lead to a loss of passengers, as well as to poor service.
One of the points that came out frequently in the interview was the trust issue and the use of the customer database of the airline. Customer database is a huge marketing tool, but sharing it with your partner is another matter especially when alliances are still unstable, even though the airline industry is likely to move towards consolidation.

The strength of the alliances in general can be seen in the dominance of the business and first class for the ‘earn and burn’ policy, the route network and the slots owned by the main carriers at main airports.

It has also been made clear in the interviews that alliances have led to route duopoly such as British Airways and Finnair between London and Helsinki, Lufthansa and SAS between Frankfurt and Stockholm, or Swissair and TAP between Zurich and Lisbon. In fact, in order to have price competition on routes you need to have more than two airlines that are not from the same alliance or grouping of airlines and who do not have a link with one other.

All the senior managers have confirmed this in the interviews. Also, they confirmed that competition amongst alliances is not as intensive as it should normally be. Obviously they have to look at prices, that they do not go too high or too low, but their main aim is to try to get into markets not by lowering their fares as such, but doing deals with the travel agents. Deals such as offering them a high percentage in order to promote your alliance instead of that of your competitor, this way of operating is an important tactical asset for the airlines and alliances.

In fact, 90% of traditional airlines get their bookings through travel agents so it is a good way of gaining passengers, and it is a also good way for travel agents to survive in such an environment, as one of the senior managers involved in the research put it. Travel agents survive mainly on commission, and if an airline comes up with a higher percentage or a better deal than one of the competitors, the better deal will get promoted, even though the European Commission considers it as unfair competition.
In addition to this, if the airline or flag carrier that contacts the agency has a significant market power the travel agent could feel obliged to sell their tickets instead of those of other carriers.

Another very important issue that came out of the interviews is the link between the alliances and slot ownership, and the effect this has on the competition. All senior airline managers acknowledge that the slots are a more important asset than aircraft.

For some of the airlines aircraft are about 85% of the value of the airline, but the problem is that an aircraft offers you less competitive advantage than slots at the right airport and at the right time. With aircraft you can get a good deal when buying in bulk, maybe with your alliance partners, up to 50% better in terms of price. But as senior managers put it, they are commodities, they have a worldwide market and are very mobile assets. On the contrary, the slots you can convert it into profits.

An airline that has slots and nothing else has value, and an airline without slots is dead in the water. If you have no slots it is no use buying aircraft, because you cannot operate them at a commercial level. However, it is also the case that there is no point having a slot a 10 am in the morning, when you need them at 6am, 12pm and 6pm in order to have a high commercial return on their use. In addition to this, when you combine the slots of two of the main airline alliances in Europe and their transatlantic partners and destinations, the risk of distorting competition is real and has been confirmed by one of the senior managers interviewed based in the UK.

As was suggested in several interviews, "Slots can effectively reduce competition". London Heathrow (LHR) was given as an example to stress the importance to an airline or group of airlines of viable and commercial slots. The reason why the prices at London Heathrow are about 15 to 20% higher is the level of profitability. In fact, the cost is higher by 15% than at any other airport in Europe. That is why US carriers want to have access to London Heathrow, you can charge higher prices, and this is mainly due to the limited access to London Heathrow.
Slots are only viable at London Heathrow if you have one that is inside the normal business departure time frame, and these can change hands for in excess of £10 million for a prime departure time according to the senior managers interviewed. This is big business, if you book that value to an airline, especially for the long-haul slots.

Slots are not transparent currencies, but they are more valuable assets than aircraft. You cannot tell how much slots are worth, so it might disguise how strong an airline is. Outside the USA there is no developed market for slots. Only insiders can appraise the value of a slot time. The price of the slot is made up of two things, time and value, and only insiders can evaluate their combined effect, while politicians would see only at the place and the proportion of slots owned by a carrier. The interviews gave us several examples of the manipulation of slots and their acquisition.

If you take into account what has been described above and the importance of slots at London Heathrow, you may understand the annoyance of some of the airline alliances that do not have a full access to prime slots at London Heathrow, particularly, if American Airlines and British Airways do eventually receive anti-trust immunity. The risk of seeing a stronghold of British Airways and American Airlines on some of the most profitable routes to the USA is real, which means, as one of the senior managers put it, a huge risk of reducing competition amongst airlines at London Heathrow.

To emphasise the previous point and as expressed by some of the senior managers interviewed an effective alliance between British Airways and American Airlines would be the most powerful force on the North Atlantic routes and would dominate services between the USA and Europe. This could lead to near route monopoly on the most profitable transatlantic routes and increase the power of both airlines in their respective markets e.g. American Airlines domestic market and the feeder market to its main hubs, and British Airways intra-European market and feeder market to its London hub. Some airlines or groups of airlines such as the Star Alliance have found a way to have access to transatlantic slots from London Heathrow, namely by buying equity in British Midland and offering them a full membership in the Star alliance.
As mentioned by some of the managers interviewed the only value British Midland had for the Star Alliance was and still is the prime time slots to transatlantic long-haul, and the access to other European destinations from London Heathrow as a feeder airline.

This would be strongly denied by the British Midland chairman, but several of the senior managers interviewed came to the same conclusion.

It is the same with KLM and Amsterdam and British Airways and London Heathrow; both airlines are attracted to each other, and both of them would have acquired slots at London Heathrow and Amsterdam Schipol, in the event of serious alliance or merger. Therefore this possibility could be revived at any time if political and economical circumstances change; partnership with British Airways would open new markets for KLM and vice versa, particularly for transfer passengers for British Airways at Amsterdam Schipol airport (used as a transfer hub).

This shows how slots are very important to an alliance or airline group as well as the actual capacity of the hub, which in turn can deter new entrants to particular routes and markets. There is a misunderstanding that came out of the interviews, that concerns who owns the slots, the airports or the airlines. At Geneva airport for instance, they think they the slots belong to the airports and this view is supported by the ACI, while the BAA Heathrow was more flexible about the matter. The airline thinks that they own the slots historically, and they should be entitled to sell or exchange unused slots in return for money. The airports on the other hands think they should hold the value of slots at airports and whatever profit made in the sale should be reinvested in the airport infrastructure.

The way airline alliances distort competition is not really noticeable to ordinary people, but can be very tricky and sometimes deadly for the small carriers e.g. domestic, regional and low-costs carriers.
The bigger airlines buy equity or share in domestic or regional carriers, they use them mainly as feeder for their main hubs and on point-to-point routes and at the same time compete against other non-aligned carriers or domestic airlines in terms of price and service.

By doing this they do diminish the competition or restrict the number of new entrants to the market, particularly in the USA, and this practice is well known in the airline industry and has been confirmed in the interviews. It predates the alliance system but the alliances facilitate it.

A very important and interesting point that was to some extent confirmed by the senior managers (one in particular) during the interviews, was that anti-trust immunity had a very strong tendency to distort competition or even to wipe out competition on some transatlantic routes.

Governments say they want to promote fair competition among airlines, but when at the same time they agree anti-trust immunity for airlines, this is considered a move to reduce competition. This is mainly due to bilateral agreements between some European countries and the USA, where for example in exchange for an open sky agreement, meaning access with no limitation to their respective countries, anti-trust immunity is given.

So far, the Star Alliance that includes United Airlines/Lufthansa, as well as the KLM/Northwest alliance have anti-trust immunity; the Sky Team Delta/Air France alliance is expected to have their request accepted, and so possibly may American Airlines and British Airways. The immunity does not only take into account the joint resource, marketing, sale and promotion coordination and joint route network management on the transatlantic route, but takes into account their respective domestic market. Therefore, the possible result can be worrying for the rest of the airlines and of course for passengers.
Can we really expect an increase of competition amongst those airlines with anti-trust immunity on transatlantic routes when the most important players have a stronghold on most of the important slots at the main airports e.g. Air France Charles de Gaulles, Delta at Atlanta, Lufthansa at Frankfurt, United Airlines at Chicago and KLM at Amsterdam.

Another practice revealed in the interviews that is used in the airline industry is the way alliances change route patterns this distorting competition even more. For example, United Airlines used to have a direct flight from Geneva to Chicago via Paris, but since United and Lufthansa entered into an alliance agreement the route was changed to Geneva Frankfurt and Frankfurt to Chicago. The flight from Geneva to Frankfurt (feeder to the Frankfurt hub) was operated by Lufthansa and from Frankfurt to Chicago by Lufthansa or United Airlines depending on the departure time.

The same model can be applied to other main airlines throughout the world that have a hub strategy. By doing such things both carriers have in fact kept their costs to the minimum, improved the passenger load to their long haul destination and offered a so-called better fare to passengers.

It is correct to say the passenger is paying less to some extend, but it is also true that she or he has to change planes twice, for journeys between two points that are not hubs, and the inconvenience can be greater that on a direct flight e.g. baggage loss, delay, missed connections. Furthermore, by closing down its direct flight to Chicago from Geneva, United Airlines has reduced even more the competition level at Geneva airport. No others airlines took over the space left by United Airlines, which in turned created, a monopoly of long-haul to the USA by Swissair from Geneva airport.

Perhaps the reason why some airlines do use this kind of arrangement is due to the fact that they are or were unable to compete against one of the established carriers, not so much in terms of price, but in terms of slots, costs and frequencies.
This interpretation was confirmed by the senior managers interviewed and they emphasised that frequencies and the right departure slots combined with effective costs, were important in the decision to set up a route or to change route destination. It would not surprise the reader to know that certainly United Airlines had lower fare from Geneva to Chicago or another destination than Swissair/Delta who were code-sharing at that time.

As some of the senior managers mentioned in the interviews, airlines or alliances look first to their own interest, and if the slots available are not commercially viable and the cost of frequencies and level of fare made available to their customers outweigh the benefits, it is time to change and cut your loss. It does not really matter what the passengers think, the passengers tied to a frequent flier programme will follow the move, especially when extra miles and benefits are added.

To underline what is expressed above, senior managers acknowledged in the interviews that airlines that are entering alliances are looking mainly at marketing and sales opportunities, so as to offer a complete network, especially to corporate accounts. By combining the propositions of several airlines, passengers share the loyalty programmes so you can earn and burn across the divide of the different airlines. By doing this they make customers loyal. Part of the product side of an alliance is the global coverage and markets, which are difficult to sustain on your own, and as member airlines get deeper into the alliance they can optimise the network together.

The real benefits of alliances are saving costs for the airlines themselves as confirmed by some of the senior managers interviewed. In fact, most of the points mentioned in the previous Chapter (V) are considered as hollow by one of the senior managers interviewed. All the cost reductions through their agreements are mainly for the benefit of the airlines. Two of the most senior managers confirmed my view that passengers in general have to understand that it is not going to be a reverse upswing; it is going to be a cost benefit.
Fares on intra-European routes are not going down, but on transatlantic routes prices have gone down, but it is not due to the alliances. In fact, you can get a good deal if there is lots of competition at the same hub, which means more than 3 or 4 airlines competing against each other.

However, as mentioned in one of the interviews, the main benefit that passengers can derive from belonging to one groupment instead of another is not the price. This statement confirmed what is described above, passengers will effectively enjoy the benefits resulting from a more complex and interesting route network in each alliance, but it does not mean that they will reap benefits in terms of lower fares. Even though according to some senior managers it will enable more competition between the alliances in that over time it will make competition more robust.

However, the competition as indicated by some of the senior managers may only become a reality on secondary routes as is happening in the USA, but not on the hub to hub routes. In other words and according to one of the senior managers it will not increase the competition on the hub to hub routes, but it will probably bring that competition to non-hub cities.

If you accept this point, what would be the implication for the competition on the non-hub cities, when most of the main airlines in Europe, USA, and Asia own domestic, regional carriers or have franchisee agreements with them? What would be the consequence for the non-aligned carriers e.g. low-cost, regional, start ups, if more perks were offered to corporate travellers, their families or leisure passengers, or if as it has happened in the past, some main carriers bring the fare down even further just for a short time in order to push aside the competition? Nobody knows the answer yet, but one of the results could be a huge decrease in competition even on the point-to-point or secondary routes, which means a concentration of few airlines in one market. This could happen sooner than some may have expected, especially if there are new ownership laws and further deregulation being implemented in the near future.
During one interview, a senior manager mentioned the case of Virgin Atlantic in their battle to get slots at London Heathrow to fly to South Africa. When Virgin got its right to fly to South Africa they showed that prior to their announcement, British Airways had fares for example of over £100 and they changed it twice a year.

After the Virgin announcement, British Airways dropped their fare to £80. When Virgin started to fly to South Africa the fare dropped down to £50 and British Airways followed.

This shows that at that time British Airways had a near monopoly on the routes and without the entrance of a new airline the fare to fly to South Africa would have been high. However, it does not mean that the reduction in fare, due to a new entrant in the market, reflects a strong and healthy competition.

As one of the senior managers from a low-cost airline mentioned during the interview, in order to have healthy competition on routes you need more than two airlines.

Otherwise, both carriers will be competing, but the level of competition will be reduced to the bare minimum (tacit understanding not to go too low in terms of fare), until a new carrier enters the market and put pressure on the other carriers. Therefore, if you have an alliance such as the Star alliance that involves Lufthansa, SAS and Austrian Airlines that is dominating the north European market, it may not be about competition, but about the lack of viable alternative. The same example can be made with Swissair and TAP on the Zurich to Lisbon route. If however a monopoly or duopoly arose and started charging excessive fares, this might be investigated by the EU competition authority.

In addition to what is written above, I have been given inside testimony in terms of price fixing to neutralise competition. As it seems it is a common practice in the airline industry, most or some of the main airlines in Europe do apply a two-tier fare allocation to their market.
In fact, as confirmed by the senior managers interviewed, the strategies implemented by most of the airlines, that is, the main carriers and some medium sized airlines, are aimed at attracting and concentrating mainly on high yield passengers. This is mainly due to their strong hub, catchment area, and to the slot allocation at their respective airports.

However, as one of the senior managers put it, you cannot only concentrate on your high yield, that is, business class and first class, especially when you know that you still have to fill in the rest of the place. In fact you need both or a combination of leisure (low yield) and business travellers (high yield); at the end of the day no big carriers can afford to concentrate only on high yield passengers. In fact, two thirds of the passengers (or less than two third for some airlines) are in economy, and the rest is mainly business and first class passengers. Even though some airlines may and will reduce their capacity for example by using smaller plane, they still have to fill those planes using their domestic and international market.

Therefore, when airlines cannot achieve their goal of filling the seats from their home base, they try to achieve their goal by attracting leisure customers from abroad.

However, they do it in such way that it does not affect their home base market, particularly in offering the more expensive fares from the home market, by selling tickets abroad for at a cheaper price. Even though it is only a small share of the capacity, it is a very effective way to ensure a better load efficiency and a profitable flight. Senior managers have described it as fill up traffic from their secondary or non-hub routes that does not affect their sale in the home market. It is all about the mastering of revenue management tools.

According to the same managers, in revenue management if you have 100 seats, you may make 80 or less of them available for your home market, depending on your strategy e.g. concentrating on high yields passengers.
The remaining 20 or more are made available for your international market e.g. Italy, France, Switzerland, Spain, and Germany at very cheap prices. By doing this you will ensure that your flight leaves full instead of half empty and at the same time you do not spoil your own market. Also, you can ensure a control over your competitors, mainly medium to small carriers on the domestic or intra-European routes. Effectively, you can combine your feeder flights to the hub, and from the hub to your long-haul destination.

Another point that came to light and has been confirmed in the interview process is the history of secondary carriers on some intra European and domestic routes. In fact, as one of the senior managers put it, what has to be taken into account in the equation when comparing routes and competition is that some countries do not have a history of secondary carriers that will affect competition.

If you take the UK and British Airways and British Midland who fly to a lot of the same routes, mainly European, but if you look at SAS and Austrian Airlines there are not many carriers other than SAS and Austrian and to some extend Lufthansa that fly the same routes

The problem with what is written above is that sometimes the airlines are required by the European Union to find an alternative carrier to fly and compete against them on a particular route. As one of the senior managers emphasised in an interview, and said to the European commission “Are we responsible for the competition?” The commission said yes, you have to try to find an airline willing to operate the same route as you. The interviewee asked how does it work in concrete terms, and was told you can contact the carriers and ask them to operate.

The fact is that prices tend to be higher on routes where there is less competition. As one of the senior managers put it, alliances are all about saving costs for the airlines and not really about the consumer getting benefits. In addition to this, the idea that alliances offer seamless travel or open more networks is something of a marketing gimmick, in fact the networks are already there but have not been used before due to high costs.
The interviews have confirmed that to some extent alliances lead to pressure on some airports. When an alliance such as the Star Alliance asked to have all their operations in one terminal only at London Heathrow, in order to facilitate the access of their passengers, most of the time the airport’s authority does whatever they can to accommodate them. In fact, it is in the airport’s best interest to offer the facilities to the airport users but especially airline groups such as Star, Sky Team or Oneworld. The interviews gave examples of the use of airline power to get concessions. It is relative power that matters; if a small carrier can get concessions think what a group of airlines or a main carrier may get. However, the interviews confirmed that the bigger you are the bigger concession leverage you have at airports.

Evidence of airline power at airports is reflected by the increase of non-aeronautical income such as duty free, restaurant, retail, parking fees and building rents, as airports strive to raise more income from sources beyond the airlines’ control.

At airports whose managers were interviewed, we were told of longer walks to the gates to expose passengers to prolonged retail temptation, rather than having a short from check in to departure. Therefore, if one of the main players at your airport asks you what is the possibility to group all the members of the same alliance under the same roof, you do think twice before saying no. In fact, by regrouping one airline alliance under one roof, airports free other gates and terminals for other airlines, which in turn can help to increase the number of frequencies and passengers due to the availability of space at gates and terminals. However, it does not mean that new entrants would necessarily get the opportunity offered by the newly found space; it is rather that the existing carriers at the airport that get the opportunity. Also, airports are looking at leasing land and buildings or sites for companies to enhance their non-aeronautical income.

This is most obvious in bigger countries with more space such as Canada, in cities such as Calgary, Ottawa, or Halifax; Germany, at Frankfurt, France at Paris Charles De Gaulles, England at London Heathrow would be other good examples.
When airport managers interviewed were asked about the power some airlines have regarding landing rights, priority, facilities in and around the airports, and slot allocation, the answer was that the playing field at their airport was level for all the airlines using the facilities.

However, they did mention that it would come as no surprise to them, if other airports would agree such deals. As one of the senior airport managers testified, many of the deals are not publicly known, but certainly exist. In addition to this, if such deals were common in the industry, it would destroy equality of competition.

At the end of the day as the director of Geneva Airport put it, even if it is true to say that some airports privilege some airlines instead of others, the airports can always answer and stand firm and make their position clear. For example, with regard to Geneva airport, some may have tried to take advantage of the situation when Swissair moved its long-haul to Zurich, but, Geneva airport reduced its landing fees by 20% to all airlines using the airport and not to one or two as some may have suggested.

Perhaps, other airports with a larger number of airlines using the facilities may have done it differently, but as the director of Geneva airport put it, it may create relationship problems with the other airlines using the facility and destroy the equality of competition, and the EU authorities might want to investigate.

What people have to appreciate is that even if airports lower their landing fees, passengers will not necessarily see a difference in airline fares. It is not the airports that control the landing fees, they are really controlled by the airlines or aircraft operators. This shows that even if carriers or airline alliances do get discount in the use of airport facilities or even landing fees, this gain will not be passed onto the passengers. On the contrary the airlines will use this opportunity to increase the flight frequencies by adding an additional flight as Air France and Lufthansa did in Geneva.
Both airlines realised that it was cost effective to add an extra frequency, due to the reduction in landing fees. The only fee that is not supported by the airlines is the passenger tax, the rest such as the fee to taxi on the runway, park at the airport, use of the gate and terminal, and so on are born by the airlines. As mentioned previously however, there is little chance of seeing a carrier or group of airlines passing the saving they may have got due to a tricky deal with airport operators onto customers.

Most of the advantages of getting into an alliance have been described in a previous chapter (V), emphasising the advantages and disadvantages mainly for the airlines. However, during the interview with the senior managers it came out that passengers none the less do have some advantages that are not negligible. Seamless travel between airlines of the same alliance is the obvious one; you have to check in once only, particularly if you are a business or first class passenger.

Alliances enhance the ‘earn and burn’ policy for all passengers, but particularly for business and first class passengers. Also, citizens of a particular country may get an increase of routes that were not available before or with their own flag carrier.

Alliances also promote the opportunity to fly to all social classes, and favour the development of some countries in terms of tourism and goods transfer, thereby increasing employment in the industry, and in turn promoting the use of air transport for leisure purposes.

As one of the senior managers of a low-cost airline and non-aligned carrier put it, they have doubts that alliances such as the Star or Oneworld promote competition. Alliances are mainly about revenue generation rather than cost cutting e.g. there are golden opportunities for example for British Airways and American Airlines if they put their mind to it, to reduce costs in terms of ground handling. Both these airlines have a huge proportion of ground handling fleets and no intention of pooling resources as yet. If they did so and cut their costs one would think that some of that would flow through to the passengers.
Both airlines, however do not describe it as a cost cutting enterprise; it is in fact a revenue generating exercise.

Another point that came out in the interviews and supports the fact that alliances do not really promote competition is the frequencies level that is critical for premium customers. The more chance of a flight in and out the better for the premium passengers, and having an alliance agreement facilitates this high number of frequencies. The interviews also confirmed that frequencies are a tool that airlines use to push aside the competition. Higher frequencies crossed with the ‘earn and burn’ policy is deadly for non-aligned carriers.

In addition to this, as we have noted airlines do use tactical operations, which are on the borderline of legality to get access to main hubs. Examples include matching the commission level of cheaper rivals, but not undercutting them; putting pressure on travel agent networks to sell their tickets, and as mentioned above increased frequencies. Also, government protection for so-called flag carriers is a way of scaring off competition, witness the disappointing experience for Swissair when it acquired three minor airlines in France.

The last point mentioned above that concerning government protection or involvement in market competition and to some extent market distortion has been confirmed by several senior managers interviewed. Governments have a heavy impact on the airlines, especially in Europe. In fact, without subsidies some airlines would have disappeared in Europe e.g. Olympic Airways, Air France, Alitalia, Iberia in the height of the economic crisis in the early 1990s and market deregulation. The money and support they have received have helped them to compete with well-run carriers e.g. British Airways, KLM, and Lufthansa, and to offer lower prices. The consequence of such involvement has been the absence of a free market. If those airlines had dealt with their problems without financial help from their governments, they would have had to shrink their size and reduce their capacity. As this has not happened the number of airlines in Europe has increased instead of decreased.
The result of such involvement has seen an increase of traffic congestion both at airports and in the sky (air traffic control).

Not only has the financial help by governments had a huge influence on the way market competition evolved on domestic and intra-European routes; also it has led to market obstruction. As mentioned by one of the senior managers interviewed, if your government is an important player in Europe and their national carrier is of great importance to the economy of the country, they will do whatever it takes in order to facilitate a national solution instead of a foreign solution.

For example, when a certain airline had to find a solution to a problem with three of its subsidiaries on the French market, the French airline and the government were part of the solution package. However, they managed never to let this be public knowledge, but the conclusion was that they made it a French solution. This was the case even though other carriers such as Easyjet were interested in buying one of these domestic French airlines. Their eventual loss of interest was mentioned as being due to the difficulty of finding a suitable arrangement for both the airlines and the French government.

As in the rest of the world, there are policies and realities, and countries are very different. As one of the same senior managers put it, “if it helps France, they will do it, to hell with Europe”. However, if you are a medium size carrier in a small European country or a country whose government does not have such a strong and powerful influence e.g. Holland and KLM, Belgium and Sabena, Austria and Austrian Airlines, the result is different. You will have to abide by the rules and regulations of the European Union in terms of market competition.

Another senior manager interviewed confirmed the view that he could not see the point of alliances. According to his thinking, it is not in the consumer’s best interests, it does not promote service; it is rather about turning people into packages. The only reason there are alliance’s due to the antiquated systems of travel rights and they are just lining up for the day when everyone will be buying everyone else.
In other words, buy the small and keep the big. Alliances however do drive certain corporate business, due to the extended route network that they can provide, which can be a problem for non-aligned carriers. Alliances in terms of price competition will reduce price to a certain level, but will not fight to the death to offer the cheaper airfare, especially on hub-to-hub routes.

To emphasise the point above, it has been confirmed in the interviews that only big airlines can engage in acquisition. Therefore, if you take the main airlines involved in the leading airline alliances e.g. Star Alliance and Oneworld, they may be the precursor of mergers. If the main airlines in the group absorb some of the medium to small partners and incorporate them in their company structure, the risk of reduction in competition or distortion of the competition is real, as acknowledged by the interviewees.

Some of the senior managers interviewed stated that mergers may be the next step in the airline development, in order to get the advantages that other industries have in terms of cost synergy.

However, they have also acknowledged the fact that you do not necessarily have to merge to get advantages, and you can get those through strategic alliances, especially if you have a cherry picking strategy such as for example Virgin Atlantic.

However, the question that some have asked themselves was how merger can offer you more than a strategic alliance, particularly in Europe. In fact, due to the size of the European market, it is very difficult for airlines to increase their market share or even to be profitable. Furthermore, having an alliance is even more difficult, due to the fact that it is very hard to divide up the market, so the solution is the merger that is big carriers eating the small. Therefore, there might be a strong possibility of cross border mergers in Europe in the near future and strategic alliance for the long-haul routes.
The need for consolidation was something else that came out of the interviews; most of the senior managers have confirmed it. In the USA you have 4 to 5 big airlines and it is becoming very hard to sustain this position, even given the size of the country. Whereas in Europe there is a total of 21 airlines, including both flag carriers and small airlines.

However, as acknowledge by senior managers, the only way the European market will go through the consolidation process is through bankruptcy, and this is mainly due to cross border regulation or ownership restriction that stop a European carrier buying more than 49.5% of another airline.

Also, as no mergers are possible in Europe for the time being under the current regulation smaller companies or medium sized airlines that are going bankrupt are being bought by bigger airlines or are disappearing completely and not being replaced. This shows wherever the consolidation process occurs, the airlines dominant in their various groups or alliances may become the main beneficiaries. They will take over routes that were operated by some of their old partners or competitors, and make them profitable, due to the reduction in number of airlines operating the routes and the implications of this for competition or fares.

It has been acknowledged in the interviews that the map of the airline industry may look something like this in a not so distant future (5-10 years); there may only be 5/6 major airlines operating globally. On each continent there should be 3 to 4 airlines and 3 to 4 main group carriers who will be the main market player and linked together through their respective alliance agreement. For example, in the US it is likely that United Airlines, American Airlines, and perhaps Delta or Continental will survive, and in Europe Lufthansa, British Airways, Air France and perhaps KLM will be the main players. In Asia, Japan Airlines, All Nippon Airways, Singapore Airlines and Cathy Pacific will be the 4 main players. Even though the Asian market continues to grow, the main players in the next 5 to 10 years will be the 3 European and the 3 American.
However, some of the senior managers have been very cautious in forecasting the exact numbers of main players. They think that at this stage of industry evolution, it appears the most probable scenario, though they have to be careful because there is danger in projecting too far forward and also in underestimating what consumers can do and how the economy will evolve in the long term, e.g. economic down turn, war, and bankruptcy.

However, at this stage it is the most probable outcome, though it may still give some opportunities to regional airlines, smaller players and medium carriers on niche routes and markets or airlines such as Virgin Atlantic that have a cherry picking strategy. This last means having fewer routes than the main carriers and concentrating on the route where profit is higher or on routes that have high yield passengers.

My thesis has been based on the assumption of pro-activity and on the corollary that the bigger airlines are more powerful than the smaller one; whatever regulation or laws are imposed, the bigger carriers will always have a superior market leverage. But during the interviews I have become aware of the limits that have to be taken into account by airlines of whatever size. These limits include over capacity, expensive assets, thin margins, and political involvement or political vulnerability are to be taken into account in the context of competitive tactics.
Chapter VII

7.0 Conclusion

It is often suggested that competition in the business world is more intense now than it has ever been, and indeed one can see several reasons why this should be so, including:

- Growth of productivity in the West
- The industrialisation of many (former) developing countries
- The increase in world manufacturing capacity following the collapse of European communism in the period from 1989 to 1991
- The affluence and high economic growth after the Second World War leading to mature markets for many products and services

All this has led to a general over capacity or over provision in services and products and civil aviation is no exception.

The reason behind the level of over capacity in the airline industry has been explained in previous chapters, but it is mainly due to the national pride that governments have in their national carriers. In fact, all countries want their own airline and some countries such as the USA and UK have several; this gives them a tool that in some cases can be very powerful when negotiating political and business deals. For example, promotion of goods, freedom of travel between countries throughout the world, exchange of technology and economic benefit that may follow when know-how, raw material and services are exchanged.

However, because of the huge number of carriers available on some markets, where the number of routes available or the demand for these routes is not sufficient to ensure a well-run and profitable industry, there is a need for consolidation.
This need may become a vital part of success in the way carriers are run, particularly in Europe. This is mainly due to the fragmented market in Europe, other means of transportation available e.g. train, car, bus, coach, and boat, and distance of travel which is shorter in comparison with countries such as the USA.

Even though most carriers in the industry have accepted consolidation as the next step or development, governments do not see it in the same way. In fact, governments, especially in Europe, block the concentration process, rather than taking the risk to see one of their flag carriers e.g. Alitalia, KLM, Austrian Airlines being taken over by another carrier such as British Airways, Lufthansa, or Air France.

In other words, governments artificially impede concentration and you will only see concentration or cross border mergers developing when rules and regulations in foreign ownership are lifted e.g. USA 25%, Europe 49.9%.

In addition to this, the day governments will stop subsidising their ailing flag ship companies e.g. Olympic Airways, Air France, Alitalia, Iberia, as has happened in the past and more recently, although it has now become illegal under the European Union transport treaty, then and only then concentration, cross border mergers and an increased level of competition (as some researchers and industry analyst believe) will occur. Furthermore, government's interference in favouring their flag carriers instead of competitors, when applying for further slots or routes made available, are also responsible for the aborted concentration.
To emphasise the previous point, the following diagram will give an even deeper understanding of the level of aborted concentration in the civil aviation:

Aborted concentration in the civil aviation

The diagram shows the process by which the level of aborted concentration is maintained artificially by governments and whatever market deregulation occurs in the future, if the ban on foreign ownership or cross border mergers are not lifted, the level of industry overcapacity will remain the same. Particularly, if governments still continue to favour their flag carriers and keep on refinancing the restructuring process of their national carriers e.g. Olympic Airways.

Recognising the unusual combination of:

- Overcapacity
- Government involvement in the airline industry
- The role of national sentiment in sustaining national flag carriers
- Frustrated industry concentration, as argued above

has led us to adopt the resource based view in an attempt to explore the realities of competition in the industry.
In this situation therefore, the way to expand, to become a market leader and stay self-sufficient, is to grow through strategic alliances and ownership of shares in other carriers (up to 25% in the case of the USA and up to 49.9% in Europe).

The reason that airlines have not pursued organic growth is because of the level of financing that is needed to buy new aircrafts, market the brand to new or virgin markets, create from scratch the infrastructure in order to be represented throughout the world, including corporate headquarters, staff, marketing campaigns, and training. As explained in Chapter I the industry is capital intensive and organic growth means that cash flow would decrease and the costs rise to an unsustainable level; it would also open the carriers to the potential difficulty of not being successful in their attempts to enter new markets and understand the needs of their potential customers.

The solution to this problem as argued in the main body of the thesis is the creation of strategic alliances between competitors, code-sharing agreement, and the creation of airline groups e.g. Star Alliance, Oneworld, SkyTeam, and Wings with roughly the same philosophy and strategy. Alliances between international airline carriers have experienced significant worldwide growth in the past few years as shown in Chapters V and I and it seems that this trend is going to develop further, unless the rules of ownership are modified, and further deregulation and market concentration occurs. In fact, as this thesis has shown strategic alliances offer a form of consolidation without the full cross-border mergers that most governments have refused to tolerate.

The emergence of these alliances is due to the changes in the world economy including the alternation of economic boom, recession, deregulation, and Open Skies agreements. The initial effect of reducing regulations on airlines was to foster global alliances and better financial viability of the industry, which has had an important impact on the world economy.
In fact, as mentioned in earlier chapters, the slim margins have put pressure on airlines to improve their efficiency and competitiveness. In addition to this, restriction of cross-border mergers between airlines from different countries and over capacity have forced carriers to search for new ways of achieving their goals and of achieving global reach as mentioned in Chapter V.

It has become common knowledge and has been argued in this thesis that the rapid growth in alliances over the past few years is mainly due to the benefits of airlines can achieve through closer cooperation. The benefits can go from the increase of route network, the better utilisation of the feeding process, to a more efficient way of using their hub and spoke strategy, as well as improving the manner in which carriers use their capacity on existing routes. For example, alliances allow airlines to share costs and to reduce duplication of services such as catering, maintenance, operation at gates, frequent flier programmes and ticketing.

However, the benefits and reduction of costs airlines have achieved through their strategic alliances, code-sharing agreements may not necessarily be passed onto the passengers.

This statement has been acknowledged through the literature search, thesis and interviews with very senior managers. Fares are effectively going down, but not to the level customers would expect.

However, even though the fares are still high, customers have gained other benefits such as an increase in quality of service, increase of available routes and more valuable frequent flier miles programmes. These changes and particularly the frequent flier programmes as explained in Chapters VI, V and IV will stimulate greater demand for air travel, which in turn may increase the demand for airline services such as hotels, car rental, shopping, credit cards, airport lounges etc.
As mentioned above, alliances represent an opportunity for airlines to increase their global reach and at the same time to become even more marketable and appealing to customers. As this thesis has shown, this is done through the increase of networks of routes all around the world and domestically, better connections and better services made available to premium and leisure customers. The successful combination of those resources, results in an increase market share, passenger numbers and for some airlines or groups of airlines an increase of their market power.

On the one hand, airlines have increased their global reach through alliances and offered a better service to premium and leisure travellers, as well as a better route network. On the other hand, the effect on the level of competition among carriers on the same routes or markets may show a reduction in the intensity of the competition. As I have demonstrated, the strength and efficiency some of the airlines involved in an alliance may enable some of them e.g. Lufthansa with the Star Alliance and British Airways with Oneworld, to make use of their newly found market power.

For example, barriers to entry can affect the level of competition on a particular route, and to some extent influence the way airlines will compete against each other.

Another example, can be seen in the way airlines use their frequent flier programmes to distort the competition and use their market power to force their premium and leisure traveller customers to use their network of routes (see Chapter V).

In addition to this and as stated in the thesis, where barriers of entry are high, competitors will not be able to respond where the formation of an alliance will use their market power to enhance their position and brush aside competition. Furthermore, as has been acknowledged by senior managers and government bodies, alliances between airlines, which “control a large amount of the capacity on a route and have few or no competitors on the same or alternative routes, will increase their market power".
Anti-trust immunity is another tool used by airlines to strengthen their market power. It allows airlines to merge their marketing resources and ticketing process as mentioned in Chapters VI and V and the U.S General Accounting Office report. Such anti-trust immunity or marketing alliances allow the two airlines involved to offer customers a single ticketing process with seamless connections between airlines and allow both airlines to determine routes and fares jointly. Obtaining such immunity would result in an increase of market power by both airlines involved, and the possibility of dictating to other carriers and passengers what they can and cannot do.

A typical example of what is described above is the London Heathrow battle for the best available slots. As stated in industry literature, airlines using the facility at London Heathrow are able to increase their profits by charging higher fares, especially to business travellers (high premium) and to some extent leisure travellers. The reasons for passengers having to pay a higher premium compared with London Gatwick and Stansted airports is due to the scarcity of slots and space available, and to the concentration of a few airlines (industry sources and interviews).

In other words, premium and leisure passengers pay for the convenience of using direct flights, better connections and facilities available at a very busy airport.

If American Airlines and British Airways, who hold some if not the majority of the high premium slots at London Heathrow airport, had been granted anti-trust immunity for their strategic and marketing alliance, they would have created a monopoly on most of the main routes between London to the USA.

It is well known that alliances enable airlines to make decisions jointly about the number of routes they will operate or the price of the airline services. Therefore, the risk of seeing some of the main airlines pushing aside their competitors through their alliances due to their share of resources and size is real and the result could be an increase in market power and to some extent in friendly competitive behaviour.
Taking the above example at London Heathrow airport or others such as Paris Charles De Gaulle, Frankfurt, Rome-Fiumicino, the strengthening of alliances through a more efficient use and sharing of resources, plus the slots of each of the partners e.g. British Airways and the Oneworld group at one of the busiest airports in the world, can be deadly for the competition. This especially, if one of the members keeps on buying unused slots to minor airlines at London Heathrow in order to further strengthen its position and be ready in the case of cross-border mergers, further deregulation in cross ownership or concentrates most of its European, domestic and long-haul routes from a high yield airport such as Heathrow.

Strategic alliances are a two-edge phenomenon, in the sense that we do not know at this stage (spring 2002) whether further deregulation and concentration will occur.

The first scenario

- If concentration does come it is going to be to the benefit of the bigger carriers, who have knitted code-sharing, marketing agreements with other airlines or have set up alliances such as Oneworld, Star Alliance, Wings and SkyTeam. In addition to this, the main airlines, who have bought shares or stakes in medium to small carriers, will have the advantage of integrating the totality of the airlines in their internal structure.

- The risk of seeing an increase or further use of their market power will become a reality the day ownership or controls of airlines are lifted. In fact, only a few airlines e.g. British Airways, Lufthansa, Air France, Singapore Airlines, American Airlines, United Airlines and others will have the financial support and right infrastructure to absorb another carriers and operate the newly acquired routes in an efficient and profitable way. The result would be as mentioned in this thesis, a strong possibility of seeing a reduction in the level of competition or a higher level of intensity on the new routes acquired and the use of their increased market power to consolidate their position on the domestic, intra-European and long-haul routes.
Second scenario

- If the rules do not change bigger carriers will still see the same benefits as mentioned above, but to a lesser extend. For example, airlines sell tickets on their routes as if they were through-flights, and share frills such as airport lounges, frequent flier programmes, airport operations, flight purchase, network shares and bilateral joint marketing deals.

- This is different from the first scenario, in that all these benefits will need to be looked very carefully, and decisions taken will need to have the approval of all the members involved in the alliances. However, if you are one of the main members of one of the main airline groups and you happen to own part of one or more of the carriers involved in the alliance, it can facilitate the decision making process. Cost effectiveness compared with the cross-border merger is not the same, but the efficient use of their route network and sharing of resources not negligible.

Moving to a new issue, the low cost airline phenomenon is here to stay and as argued in this thesis this will be developed even further in the future and will compete to some extent with the main carriers. However, the competition between the low-cost and the main airlines will be felt mainly on secondary routes, and only to a lesser extent on some of the main routes. This is mainly due to the fact that low cost airlines are using secondary airports where costs are lower and these airports are less crowded than main airports such as London Heathrow, Rome-Fiumicino, and Paris Charles De Gaulle. It does not mean that they are not an alternative to main carriers, on the contrary they offer cheaper fares, which in turn attract a huge number of leisure travellers on short haul flights.

These new leisure travellers may not have taken the opportunity to fly more frequently to tourist destinations such as Bordeaux, Biarritz, Nice, Ibiza, Geneva, Amsterdam, Venice, Brussels, Dublin and so on, had it not been for the low cost carriers.
In fact, as mentioned earlier and in Chapters IV/V the reason why those low cost carriers can offer such advantageous fares is due to their very lean structure and to the number of planes in comparison to the main carriers. However, it does not mean that the so-called low cost airlines are cheaper and more convenient than carriers such as British Airways, KLM, Air France, Alitalia, and so on. On the contrary, flag carriers or principal airlines can be as cheap as the low-cost airlines and more convenient in terms of frequency of flights, and more flexible in terms of airline tickets.

Some of the low-cost carriers such as Easy Jet and Ryanair are moving on and developing into the leading low-cost airline competitors, facing the main airlines. Furthermore, while the big airlines are reducing their route network, they seem to strive and increase their routes, by taking over and attracting premium business traffic onto their routes. In fact, it seems that only governments and existing agreement over access to bigger airports will stop the low cost airlines engaging in face-to-face competition with national flag carriers. However, by increasing their route network, increasing their capacity and at the same time accessing bigger airports, that may spell the end of the dream of the so call low cost carriers. In fact, increasing the route networks, means new planes, new staff, higher airport taxes, increase in marketing costs and advertising costs and the result may be an increase in fares and loss of the lean structure that has given them a competitive edge on secondary routes. In addition to this, their overall financial structure may not give them the backing that is needed to take on the main airlines. When they make a move and go in one direction, the main carriers can do it faster and to some extent better, due to their already established structure and know-how.

There is a strong possibility that industry concentration in the low cost segment will occur in Europe, where only three or four of them may emerge as the main players in Europe. This could be due to the level of route concentration and consolidation of the main carriers and the level of restructuring some of the most important carriers go through.
By becoming leaner and more efficient, national flag carriers will be able to be as competitive as the low-cost airlines, and only a few of them will be able to stand such a level of competition and increased market power from the well established carriers.

Finally, we would say that our adoption of the resource-based view has been helpful in focusing on the dynamic of competition, and on occasion, on some rather dubious practices. At the same time it has to be acknowledged that the airlines face two problems.

On the one hand they are powerless in the sense noted in the previous chapters, that there are a whole range of things from air traffic control to slot availability, from airport location and access to quality of catchment area, over which they have little or no control. On the other hand the industry is characterised by intensive competition over capacity, government involvement, blocked industry consolidation, expensive capital assets and narrow profit margins. So perhaps we should be guided by an ethic of tout comprendre, c'est tout pardonner.

7.1 Contribution and Originality

I am conscious that this is not a "typical Ph.D.".

The argumentation and development of the thesis has depended to some extend on data that is already in the public domain albeit much of it in specialist sources and in official and corporate reports as detailed earlier. But without my personal knowledge and experience in the industry, I would not have been able to use this data in a meaningful and constructive way.
So my distinctive contribution is to have:

- Crossed public data with personal understanding
- In turn allowing me to map the evolution of the industry
- To draw meaning from the data, rather than simply documenting it, to synthesise, generalise, qualify and interpret

Furthermore, after a review of competing paradigms discussed in an earlier chapter, I adopted the resource-based view as a framework for understanding industry developments and the dynamics of competition.

This in turn focussed attention on:

- Merger and acquisition activity in the industry.
- The differential leverage exercised by airlines at airports
- The formation and evolution of strategic alliances among airline.

key areas for understanding the reality of competition in civil aviation.

So the originality of the thesis lies in:

- The syntheses, organisation and interpretation of data
- The fashioning of hypotheses regarding competition within the resource-based paradigm.

Finally, a number of interviews with high-status industry informants were carried out, described in the previous chapter. These served to substantiate and amplify the theses, and at points to qualify our views.
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