COMPETITIVE ASSESSMENT OF COOPERATION IN THE CIVIL AVIATION INDUSTRY

INTERNSHIP PROJECT REPORT
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Disclaimer

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**Undertaking**

I do hereby undertake that this particular report has been prepared as a part of the internship program at the Competition Commission of India. All the information contained herein is true to my knowledge and understanding.

The report has been drafted from various sources and is the result of the research carried on. Various sources from which the data has been taken and incorporated have been duly acknowledged.
Acknowledgement

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<td>ASAs</td>
<td>Air Service Agreements</td>
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<td>ATI</td>
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<td>BA</td>
<td>British Airways</td>
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<td>5.</td>
<td>DGCA</td>
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**Executive Summary**

The civil aviation industry follows cooperation as its preferred mode of operation. Models of cooperation vary from simple marketing cooperation models to just short of complete mergers or acquisitions. There are strong efficiency arguments supporting cooperation in the form of strategic alliances but there are potential anti-competitive effects also especially on the overlapping routes. However these potential anti-competitive effects can be dealt with robust regulatory regime and enforcement authority. In case of India, liberalization has followed a slow pace. But further liberalization at a faster pace is the need of the hour. As of now, there does not appear to be a strong case for potential anti-competitive effects outweighing the efficiency arguments in favour of alliance formation. The aviation industry requires a strong sectoral regulatory set up which is capable of regulating a constantly evolving aviation industry.
1. CHAPTER I – INTRODUCTION

1.1. Types of Air Transport Services

The civil aviation industry consists of three major segments:

a. **Scheduled Air Transport Service**: This air transport service is undertaken between two or more places and operated according to a published time table or with flights so regular or frequent that they constitute a recognizably systematic series, each flight being open to use by members of the public.

b. **Non-Scheduled Service**: Non-Scheduled Operation means an air transport service other than scheduled air transport service and that may be on charter basis and/or non-scheduled basis. The operator is not permitted to publish time schedule and issue tickets to passengers.

c. **Air cargo service**: An air cargo service means air transportation of cargo and mail. Passengers are not permitted to be on these operations. It may be on scheduled or non-scheduled basis. These operations are to destinations within India. For operations outside India, the operator has to take specific permission of Directorate General of Civil Aviation (DGCA) demonstrating his capacity for conducting such operations.¹

NOTE: The report focuses only on Scheduled Air Transport Services.

1.2. Scope and Objective of the Research Project

The scope of the research project is to analyse the civil aviation industry in terms of the mode of operation followed by airlines across the world, liberalization scenario and regulatory framework followed internationally and in India and to assess the formation of strategic alliances in India.

The objective of the research project is to make a competitive assessment of the different models of cooperation followed by airlines across the world with special reference to strategic alliances.

In case of India, a hypothetical case study has been done to analyse the formation of strategic alliances.

1.3. Research Methodology

The researcher has employed a combination of doctrinal, analytical and comparative method of research in this report. Methodology includes literature review of journal articles, peer reviews and analysis of the findings. Information has been obtained from secondary sources which include books, articles from journals, committee reports, news reports and internet articles.

1.4. Research Questions

a. What is the mode of operation amongst airlines across the world?

b. What is the liberalization scenario and regulatory framework followed in India and across international jurisdictions with respect to the civil aviation industry?

c. How can we assess the formation of strategic alliances in the Indian civil aviation industry as of now?
2. CHAPTER II – MODE OF OPERATION AMONGST AIRLINES ACROSS THE WORLD

2.1. Characteristics of the Civil Aviation Industry

Starting from 1912, when the first scheduled flight took off, the aviation industry has come a long way in terms of improved productivity and production capacity largely due to technological advancements. Over the years the airlines have done a fantastic job building an industry that is safer, more accessible and more efficient than ever before. Consumers seem to have benefited immensely from the progress that the airline industry has made in terms of greater choice, lower fare and improved service quality. But all this has been possible because of cooperation amongst the airlines. Without cooperation, no airline is capable of serving the growing demands of the consumers in isolation. Cooperation amongst airlines across the world has liberalized this sector to a large extent even in the presence of operational and ownership and control restrictions and undoubtedly, it is the consumers who have benefited the most out of this process.

There are certain characteristics that are peculiar to this sector and make it different from other sectors and hence it is worthwhile to have a look at these characteristics and understand what necessitates cooperation in this sector.

- The civil aviation industry is a high cost industry i.e. it entails not just high fixed costs (fleet size) but also high operating costs (fuel cost, taxes, landing charges etc) and hence it suffers from insufficient profitability. On top of this, presence of excess capacity, which is another characteristic of this industry may further raise the per unit operational cost. Too much inventory and not enough demand can cripple a business of any size. So it becomes important to rationalize the capacity such that resources are utilised efficiently whether demand is at its peak or at its trough.

- In today’s time when consumers demand global connectivity and prefer seamless travel then cooperation amongst airlines becomes indispensable because without international partnerships no domestic airline can provide a global network. Cooperation amongst airlines on flight scheduling, locating departure gate for connecting flights near the
arrival gate, coordinating baggage transfer etc provides consumers seamless travel which greatly enhances their satisfaction.

- The regulatory framework within which the international airline industry operates is very restrictive largely due to security reasons. Regulatory and legal restrictions often prevent the full ownership of airlines by foreign companies and consequently cooperation among airlines serves as the only viable market entry mechanism.

### 2.2. Different Models of Cooperation

The spectrum of cooperation ranges from traditional interlining to joint ventures. In the most basic model of cooperation, airlines are involved in the coordination of schedules on a limited number of routes while the advanced models include joint marketing arrangements, code-sharing, exchange of equity, and revenue sharing joint ventures.
Chart 1: The spectrum of airline co-operation

- Interline Agreement

It is an agreement between airlines to coordinate the schedules of two or more carriers facilitating efficient transfer of cargo and passengers. These agreements allow passengers to travel across the networks of multiple airlines with appropriate connection times. However, the passengers generally have to buy multiple tickets and face multiple check-ins, longer distances between gates of connecting flights and problems in baggage handling.

- Code-share Agreement

A code-sharing agreement allows an airline to sell seats or provide service between cities on a partner’s plane as if they were its own. The airline selling seats is referred to as the marketing carrier and the airline providing the aircraft, crew and ground-handling support is referred to as the operating carrier. The result is a single operating flight bearing the code of the operating carrier and the code of the marketing carrier. For example, prior to the code-share agreement, suppose that Continental offered nonstop service between cities A and B, but not between B and C, and that America West offered nonstop service between cities B and C, but not between A and B. Suppose also that neither carrier offered one-stop service between A and C through a connection point other than B. If America West’s B-to-C flight were code shared with Continental, then Continental could offer one-stop service from A to C. That is, Continental could quote a price and offer service between A and C (through B) a passenger would fly on a Continental flight between A and B and connect to the code-shared flight (that is, the America West operated flight) for the B-to-C leg of the trip. If the Continental A-to-B flight were code shared with America West, America West could offer one-stop service between A and C. Finally, if both flights were code shared, both Continental and America West could offer one-stop service between A and C.


In case of an interline agreement a travel agent would use an “interline” itinerary to sell a passenger a Continental ticket from A to B and an America West ticket from B to C. In contrast, a code-share agreement allows a travel agent to offer a Continental (or America West) “online” connection. That is, the one stop code-share flight has many of the characteristics of “single-carrier” service (for example, in terms of frequent-flyer miles and assurance to consumers of coordinated baggage handling).^{4}

Types of financial arrangements:

The financial arrangements between an operating carrier and its alliance partner can take different forms.

- **Free-Sale**
  Free sale code-sharing agreements give the marketing carrier access to the operating carrier’s inventory and allow it to market seats independently of the operating carrier. The risk is completely on the operating carrier since the marketing carrier functions almost as an agent. Moreover, seats availability is determined solely by the operating carrier that can decide e.g. to close seats availability at the prices set by the marketing carrier.

- **Blocked Space**
  Alternatively, in a “blocked space” arrangement, each carrier can buy and resell a block of seats on the other carrier's flights. After reselling the seats the carrier keeps the revenue with itself. Sometimes only one carrier buys a block of seats on the other's flights. For example, the marketing carrier may buy a block of seats on a code-share flight from the operating carrier and attempt to sell those seats at whatever price it chooses. Because the number of seats purchased

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^{4} Ibid p. 198
by the marketing carrier on any particular flight is fixed, it is possible that one carrier is able to sell all the seats while the other has seats left with it.5

- **Strategic Alliances**
When two or more airlines enter into a commercial relationship offering a common brand with the aim of leveraging the partnership to increase their profits is called a strategic alliance. This model involves a higher level of cooperation used by the alliance partners to coordinate on prices, routes, scheduling, airport facilities, human resource management etc by pooling in their resources.

- **Mergers**
It is the highest level of cooperation among the airlines which leads to the combination of two or more airlines into one new airline. The two airlines may decide to initiate merger negotiations which if turn out to be favourable, lead to the merger of the two airlines to form a new larger entity. In the aviation industry cross-border mergers are generally not allowed due to regulatory and ownership restrictions so, in place of mergers airlines form strategic alliances.

Although mergers would be the most preferred level of cooperation as desired by the airlines but mergers as mentioned above are generally restricted either by bilateral air service agreements or national laws. Currently international aviation is governed by a complex web of bilateral air service agreements (ASAs) that were developed according to the principles of the 1944 Chicago Convention. ASAs often contain conditions giving country X the right to reject country Y’s airline if the carrier is not substantially owned and effectively controlled by nationals of country Y. These restrictions are often supplemented by statutory provisions in a country. For example, in the US, the Civil Aeronautics Act requires all US airlines to be at least 75% owned and controlled by US citizens.6

5 Ibid p. 199
6 Pearce Brian and Smyth Mark (2007): Airline Liberalisation, IATA Economics Briefing N 7
So strategic alliances have become the most commonly adopted model of cooperation amongst airlines across the world.

2.3. Strategic Alliances
Currently alliances amongst airlines on international markets have become a dominant feature of the airline industry. The US and European Union have been very permissive to the process of liberalisation, especially to the formation of strategic alliances. The major alliances as they stand today, are built around large US and European carriers. The key partners are United and Lufthansa for the Star Alliance, American and British Airways for the Oneworld alliance, Delta and Air France for the Skyteam alliance. By the middle of 2011 these three largest alliances in the world were providing over 80% of capacity across the Atlantic and Pacific and just under 80% between Europe and Asia. Many airlines across the globe are members of these three biggest alliances and there are lot others which aspire to join anyone of these alliances. However, in case of India, till date no airline is a member of these three major alliances. As a matter of fact, the Jet Í Etihad alliance is the first of its kind in the history of Indian civil aviation industry. In the Indian civil aviation industry code-share is still the most dominant form of cooperation amongst airlines.

Until very recently the trend amongst the international airlines had been to join one of the three major alliance groups. However, now the focus is shifting from multilateral alliances to bilateral alliances. Rather than joining big alliance groups, airlines are now forming bilateral alliances. For example, the bilateral alliance between Qantas and Emirates. The alliance will allow both the airlines to share services on trans-Tasman routes. The airlines will be able to cooperate on passenger and cargo transport operations, and other related services, for an initial period of five years.

Now let us analyse the efficiency arguments given in favour of forming strategic alliances.

7 Doernhoefer Gary and Pearce Brian (2011): ÒThe Economic Benefits Generated By Alliances and Joint Ventures,Ó IATA Economics Briefing
2.3.1.1. Efficiency Arguments:

- Alliances help in achieving economies of traffic density. In general, alliance partners in major alliances link their networks by connecting their hub(s) to their partner’s hub(s) and hence the alliance secures additional traffic as each partner feeds traffic to the other. The alliance can create additional online carriers between two cities. For example, if one carrier flies between A and B and another flies between B and C, an alliance between the two carriers can create one or two additional competitors between A and C. By increasing the number of frequencies or destinations served each member is likely to attract more passengers to the network. Thus higher traffic density ensures better seat utilization especially in case of large aircrafts and hence brings down the per unit operating costs. Economies of scales are achieved through shared or consolidated use of airport facilities and ground handling arrangements, joint procurement of fuel, mutual handling of baggage transfers and passenger check-in processes.

- Alliances are better positioned to provide good quality service to the passengers than the individual airlines. Alliances offer more convenient flight schedules, greater flight frequency, a larger network and more online connections. Passengers enjoy a seamless travel as partner airlines coordinate flight schedules to minimize waiting time and by locating arrival and departure gates close to each other.

- Furthermore, strategic alliances may also reduce the fares through code-sharing on complementary routes. To explain complementary alliance networks, let us consider two hub airports. Assume that neither of the partner carriers operates in the domestic market of the other airline. Therefore, the national carrier cannot offer the passenger a single flight from the city of origin to the city of destination. Thus, through code-sharing agreement passengers can travel between the two hub airports. For example, to travel

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from Delhi to New York the passenger will buy a ticket from airline \( \text{A} \) which includes the code sharing segment operated by airline \( \text{B} \). The first leg from Delhi to Dubai will be operated by A and the second leg from Dubai to New York will be operated by B. The current literature generally agrees that complementarity in route networks among alliance partners ought to benefit consumers through both reduced fares and expanded networks (Brueckner 2001, 2003; Brueckner and Whalen 2000; Park, Zhang, and Zhang 2001).\(^9\)

Therefore considering these robust efficiency arguments one should not follow a per se approach towards analyzing the conduct of strategic alliances. In fact, what needs to be followed is a detailed rule of reason approach because if the collaborative arrangements are rejected outright and considered to be illegal per se then it may entail welfare loss.

Let us now analyse the potential anti-competitive effects.

### 2.3.1.2. Potential anti-competitive effects

- Policy makers are often concerned that strategic alliances may facilitate **price collusion** among partners on their overlapping routes. Hence the policy makers are extremely hesitant to approve such proposed alliances with route networks having significant overlap. For example, suppose that prior to the alliance, partners offered competing online service in overlapping routes. So after the alliance formation the partners are in a position to facilitate price collusion. To the extent that collusion occurs fares on these overlapping routes may increase, causing consumers’ welfare to be adversely affected. Chen and Gayle (2007) provide a formal theoretical analysis of how code sharing may result in equilibrium price increases.\(^{10}\) According to Bilotkach (2004) the extent of price increase on the parallel route depends whether the alliance have antitrust immunity or not. Brueckner and Whalen showed (1998) that over the horizontal hub-to-hub network,

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\(^{10}\) Ibid p. 782
where carriers become alliance partners, fares rise by 5% compared to the pre-alliance stage.\textsuperscript{11}

- Another concern is that an alliance could lead to higher prices by increasing “multimarket” contact between the alliance partners and other carriers. William Evans and Ioannis Kessides argue that an increase in multimarket contact between carriers reduces competition between them.\textsuperscript{12} An airline alliance also reduces competition that otherwise would have occurred between carriers if the creation of the alliance reduced either partner’s incentive to expand its service either between city pairs it already served or to other city pairs.\textsuperscript{13}

- **Market foreclosure** involves denying actual or potential competitors access to either an essential input or customers, and thereby preventing them from competing. The foreclosing firm might adopt anyone of the following strategies: vertical integration with competitors, refusal to deal, exclusive arrangements, and price discrimination. For example, Air France restricted inventory available to non-Sky Team interline carriers in 2004, reducing number of non-alliance passengers connecting in Paris and Frankfurt. The possibility of foreclosure in airline partnerships has been suggested in models of Chen and Gayle and Bilotkach.\textsuperscript{14}

\textsuperscript{11} Sundman Thomas (2009): “Airline code-share alliances with antitrust immunity and their competitive effects on international passenger output: an application to monopolistic and oligopolistic network structures on the trans-Atlantic market,” Master’s Thesis, Hanken School of Economics
\textsuperscript{13} Ibid p. 202
\textsuperscript{14} Bilotkach, Volodymyr; Hüschelrath, Kai (2010): “Antitrust immunity for airline alliances,” ZEW Discussion Papers, No. 10-080
3. CHAPTER III – COMPETITIVE ASSESSMENT OF STRATEGIC ALLIANCES

In general, the approach followed by regulatory authorities before approving strategic alliances has been to carefully weigh the efficiency arguments given by the airlines against the potential anti-competitive effects. Only after a thorough analysis, the regulatory authorities of the concerned nations have approved of strategic alliances and wherever required have imposed certain conditions. For example, in the recently concluded Qantas ï Emirates alliance, the Australian Competition and Consumer Commission has imposed the following conditions on the operators:

- It has imposed capacity conditions that apply to the trans-Tasman sectors which Qantas and Emirates both operate. These conditions limit the airlines’ ability to increase prices through reducing capacity.
- The alliance has been authorized for a period of five years. The Minister of Transport has the ability to revoke authorization should the airlines fail to comply with terms of the alliance agreement.¹⁵

In fact, adopting a holistic approach to check the potential anti-competitive effects of alliance formation and not just focusing on particular anti-competitive effects, the Open Skies policy has been widely used by regulatory authorities across the world as a precondition to alliance formation to safeguard the consumer interests.

Before going forward let us first define an Open Skies policy and its important features.

3.1. Open Skies Policy

Open skies policy calls for the liberalization of rules and regulations in international aviation industry while at the same time minimizing government intervention thus opening a free market for the airline industry. The provisions of the policy apply to passenger, all-cargo and both scheduled and charter services.

For open skies to effect, a bilateral (and sometimes multilateral) air transport agreement has to be concluded between two or more nations. In a typical case, an open skies agreement completely eliminates the capacity and route restrictions of the prior bilateral agreement.\textsuperscript{16} Suppose there are two countries that have an Open Skies agreement between them then the carriers of both the countries are allowed to provide unlimited service to any endpoint in the other country with capacities and frequencies of their choosing. In addition, the most-liberal open skies agreements provide unlimited "beyond" rights (or fifth freedom rights), allowing one country's carrier(s) to provide continuing service beyond the other country to additional destinations.\textsuperscript{17}

Beginning in 1978, the United States removed the regulatory barriers to competition in its own domestic market. In reaction to this move by the United States, many other countries followed the lead. These countries saw the international regulation of air travel as an impediment to international trade, travel, and tourism. In response to these concerns, the U.S. began actively pursuing liberalization agreements with foreign aviation partners in the 1980's. The first bilateral agreement was signed with the Netherlands in 1992. Following the signing of initial agreement, the U.S. entered into eighty agreements (Alford and Champley 2007), fifteen of which included countries from the European Union (EU).\textsuperscript{18}

After years of negotiation, the EU and U.S. authorities signed an Open Skies accord on April 30, 2007. The agreement allows all EU airlines to operate direct flights between U.S. and any EU country, and allows U.S. airlines reciprocal rights, and ability to fly between EU city-pairs. The agreement stipulates that every U.S. and EU airlines are authorized to:

- Fly between every city in the EU and every city in the US;
- Operate without restriction on the number of flights, aircraft, and routes;
- Set fares according to market demand; and

\textsuperscript{17} Ibid
• Enter into cooperative arrangements, including code-sharing, franchising, and leasing (Department of State briefing, March 9, 2007)\(^\text{19}\)

3.1.1.1. Empirical Evidence: Impact of Open Skies policy

Several previous studies have assessed the economic impacts of previous open skies agreements (Button, 2002; Mayor and Tol, 2002; Robyn et al., 2002; Bucha, 2003; Strober, 2003; Whalen, 2005; Robyn et al., 2005; inter-VISTA-ga2, 2006; and Booz Allen Hamilton 2007). In general, these studies have found that open skies agreements lead to increase in the output of air transportation services (available seats), decrease in airline operating expenses, air fare price reductions, and an increase in the demand for air travel (passengers).\(^\text{20}\) The Brattle Group (Boaz Moselle et al., 2002) and Booz Allen Hamilton (2007) are two of many studies commissioned by the U.S. and EU on the benefits of Open Skies. The Brattle report estimated an increase in international passenger demand between 9% and 24%, depending upon the demand elasticity assumption (between 1.0 and 2.5) and assuming that all costs savings by the airlines were passed on to consumers. They also assumed that fares would decrease between 18% and 28% (Brueckner and Whalen 2000) and the frequency of the number of flights between the U.S.-EU increase by 10%\(^\text{21}\).

Jurisprudence of the Department of Transportation (DOT) during the past decade treats an Open Skies agreement and its guarantee of open market access as sufficient in most cases to prevent partners in an alliance from reducing or eliminating competition or exercising market power. Where an Open Skies agreement exists, DOT typically finds that it can approve a proposed alliance agreement under 49 U.S.C. § 41309 on the ground that it is not adverse to the public interest.\(^\text{22}\) Because DOT had made it clear that an Open Skies agreement was an essential prerequisite to consideration of a request for antitrust immunity (ATI), foreign governments’ interest in Open Skies relationships with the United States began to increase dramatically. The

\(^{19}\) Ibid
\(^{20}\) Ibid p. 4
\(^{21}\) Ibid p. 6
result was a rapid increase in international aviation liberalization, in the number of alliance ATI applications submitted to DOT, and in the frequency of ATI awards.\textsuperscript{23}

Before going forward let us first define an antitrust immunity and analyse its use.

### 3.2. Antitrust Immunity

Antitrust policy is used as a policy tool by the government to control the actions of firms in pursuit of market power. Immunity provides enhanced integration and close coordination to alliance members. The members are able to cooperate on prices and volumes which in the normal course are generally not allowed. Furthermore it enables strategic coordination, mutual fare formulations in all markets in quick response to changing market conditions. The members operate as if they belong to a single airline. However, each airline’s management remains separate.

KLM invested in 25 per cent of NW’s voting shares and 49 per cent of its equity as of March 1993. This alliance was the first antitrust immunity granted by the U.S. Department of Transportation in November 1992, shortly after the U.S. and the Netherlands signed an open-skies agreement in September 1992.

The scope of antitrust immunities (ATIs) granted varies:

- Amongst members of the Alliances \(\text{I}\) generally within the alliance individual members or member groups cooperate to a different degree \(\text{I}\) thus different levels of immunities are granted
- Across jurisdictions alliances may be subject to different types of remedies and conditions\textsuperscript{24}

When antitrust authorities decide whether or not to allow for antitrust immunity, they compare the resultant pro-competitive and potential anti-competitive effects of granting such immunity.

\textsuperscript{23} Ibid
\textsuperscript{24} Weert van Wilko (2012): “International Perspective on Antitrust Immunity (ATI),” McDermott, Will and Emery, Brussels
3.2.1.1. Empirical evidence: Use of ATI

An argument which is frequently given in the favour of granting antitrust immunity is the elimination of double marginalization. Granting an antitrust immunity to an alliance eliminates carriers’ incentives to impose successive mark-ups on fares for connecting tickets which leads to lower fares and expanded output. For example, a 2003 study by Professor Jan Brueckner of the University of California-Irvine found that a code-sharing alliance without ATI results in fares that are 8-17 percent lower than interline tickets, but that code-sharing plus immunity results in fares that are 17-30 percent lower than interline tickets. The DOT analysis in 1999 concluded that multinational alliances have fueled enormous increases in connecting traffic, that newly stimulated traffic accounts for a large proportion of alliance growth and that traffic growth substantially increased after the airlines began fully implementing the alliances after receiving immunity. And a more recent study by a U.S. Department of Justice economist found that while non-immunized alliances were associated with a 29-41 percent increase in capacity, immunized alliances were associated with capacity increase of 51-77 percent (W. Tom Whalen).

On the other hand there are studies that have confirmed the presence of anti-competitive effects. For example, the possibility of foreclosure in airline partnerships has been suggested in models of Chen and Gayle and Bilotkach. In fact, Air France restricted inventory available to non-Sky Team interline carriers in 2004, reducing number of non-alliance passengers connecting in Paris and Frankfurt. According to one of the post-2000 studies on immunization Sky Team fare increased by 4-5% on certain gateway-to-gateway routes involving U.S and France (Reitzes, Robyn, Neels, 2005).

26 Ibid
Hence empirical analysis supports both the efficiency arguments as well as the potential anti-competitive arguments in the grant of antitrust immunity. Hence there is no clear evidence supporting granting of antitrust immunity. So the competitive authorities carefully weigh the efficiency as well as anticompetitive arguments on a case-to-case basis giving utmost priority to the interest of the consumers. Many a times while granting antitrust immunity to an alliance the authorities impose several conditions or remedial measures on the alliance airlines to ensure that they do not abuse the antitrust immunity granted to them. More recently US regulators have sometimes imposed ‘carve-outs’, preventing co-operation on some hub-to-hub markets when granting ATI.

Liberalized regimes and Open Skies agreements have become increasingly ubiquitous worldwide. To date, the United States has entered into 94 Open Skies agreements, many of which have been followed by grants of ATI to alliances operating in the newly liberalized bilateral markets. The confluence of Open Skies agreements, alliances, and ATI has spawned a fundamental reinvention of the global air transport industry.

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28 A carve-out prohibits collaboration in hub-to-hub fare setting, while allowing cooperation in other markets.
4. CHAPTER IV – COMPARISON OF INTERNATIONAL REGULATORY REGIMES

4.1. Approach of the US

Major U.S. and foreign air carriers, under 49 U.S.C §§ 41308-41309, request a grant of immunity from the U.S. antitrust laws to operate certain commercial alliances. Immunity allows these airlines to coordinate their fares, services and capacity as if they were a single carrier in these markets, subject to certain conditions. When evaluating these applications, DOT engages in a two-step analysis of foreign air transportation agreements submitted for their approval.

- The department first determines under § 41309(b) whether the agreements are adverse to the public interest because they would substantially reduce or eliminate competition (the competitive analysis). If affirmative determination is made, § 41309 (b)(1)(A) directs the department to decide whether they are nevertheless necessary to meet a serious transportation need or to achieve important public benefits; U.S. foreign policy goals are a key element of these benefits. If that finding is made, and also it is found that those public benefits cannot be met or achieved by reasonably available and materially less anticompetitive alternatives, the department must approve the agreements pursuant to § 41308(b). Section 41309(c)(2) provides that a party opposing approval has the burden of showing that the agreement or request would substantially reduce or eliminate competition and that less anticompetitive alternatives are available. On the other hand, the party seeking approval of the agreement or request must establish the transportation need or public benefits.

- If, however, the Department does not find the agreements to be adverse to the public interest, § 41309(b) directs it to approve them. In that event, it next decides whether there are sufficient public benefits to grant immunity under 49 U.S.C. § 41308(b) (the public benefits analysis). In that subsection, Congress has given the Department the authority to exempt airlines from the antitrust laws to the extent necessary to allow a proposed transaction to proceed, provided that the exemption is required by the public interest.
A grant of antitrust immunity is not automatically given to applicants. Moreover, an alliance which has received immunity is required to comply with the operating constraints and reporting requirements specified in the final order.\(^{31}\)

Most members of the three global alliances have received immunities with respect to trans-Atlantic routes, subject to conclusion of Open Skies Agreements in 1990s. The immunities were largely re-approved after imposing remedies and conditions to avoid any anti-competitive behavior.

- **Star Alliance**

Most members of the Star Alliance have been granted immunity. While granting immunity, DOT took into consideration the following benefits:

- An expanded network serving many new clients
- New online service to new and existing routes
- Enhanced service options such as more routings, reduced travel times, expanded nonstop service, etc.
- Enhanced competition due to the addition of a major new gateway, the elimination of multiple mark-ups on code-share segments

- **Sky Team Alliance**

In July 2009, DOT approved ATI to Continental Airlines and allowed old Alliance members to portion their international air services within a new joint venture (JV). Carve-outs were placed on several markets and the carriers were to provide annual reports to the DOT about the implementation of their alliance agreements.

• **One World**

In February 2010, DOT granted immunity to One World involving airlines such as: BA, Finnair, Iberia, Royal Jordanian. As one of the pro-competitive arguments DOT noted increased competition by One World Alliance with already approved global alliances Star and Sky Team. However, potential harmful effects were found with regard to select routes between the US and London’s Heathrow Airport (hub for the BA). Therefore several conditions were imposed:

Â• Making four pairs of slots available to competitors

Â• Changes to agreement to ensure capacity growth

Â• Carriers required to submit traffic data

Â• Implementation within eighteen months\(^{32}\)

**4.2 Approach of the European Union:**

In Europe, the Commission has the sole authority to grant antitrust immunity for airline alliances. Unlike the United States which adopts *ex ante* control of agreements, the Commission has introduced *ex post* control for airline alliances. Similar to the United States, although not explicitly stated, the Commission also tends to only grant antitrust immunity for alliances containing airlines with European nationality and although not explicitly stated like in the case of the United States, the Commission also considers whether a foreign alliance partner’s government has signed an Open Skies agreement with the European Union as a condition for antitrust immunity.\(^{33}\)

• **Sky Team Alliance**

In January 2012, the Commission opened an antitrust probe in a transatlantic JV between KLM, Alitalia and Delta. In the JV the parties were fully coordinating their transatlantic operations with

\(^{32}\) Weert van Wilko (2012): *International Perspective on Antitrust Immunity (ATI)*, McDermott, Will and Emery, Brussels

\(^{33}\) Republic of Korea (2013): *Antitrust Immunity For Airline Alliances*, Worldwide Air Transport Conference, Sixth Meeting, Montreal
respect to capacity, schedules, pricing and revenue management as well as share profits and losses. While at the same time, the Commission closed proceedings against eight members of the Sky Team alliance (Aeromexico, Air France, Alitalia, Continental Airlines, Czech Airlines, Delta, KLM and Korean Air). The Commission had commenced a market test of commitments from eight members of the Sky Team concerning alliance cooperation in 2007.

- **Star Alliance**

On April 20, 2009, the Commission opened formal proceedings against certain members of the Star Alliance (Air Canada, Continental, Lufthansa and United) to assess whether their joint activities were leading to a restriction of competition on certain trans-Atlantic routes.

- **One World**

On June 20, 2011, the Commission rejected a complaint by Virgin Atlantic for alleged violations of Article 101(1) TFEU. The Commission concluded that final commitments made by the parties address all identified competition concerns.\(^\text{34}\)

### 4.3 Approach of Japan:

In Japan, Department of Land and Transportation, has the authority to grant antitrust immunity to airline alliances. However, since only airlines with Japanese nationality may apply for antitrust immunity under Japanese air transportation laws, antitrust immunity is not granted to alliances between foreign airlines not including airlines with Japanese nationality. Although not explicitly stated like in the case of the United States, the Department of Land and Transportation also considers whether a foreign alliance partner’s government has signed an Open Skies agreement with the Japan as a condition for antitrust immunity.\(^\text{35}\)

### 4.4 Approach of Singapore:

\(^{34}\) Weert van Wilko (2012): “International Perspective on Antitrust Immunity (ATI),” McDermott, Will and Emery, Brussels

\(^{35}\) Republic of Korea (2013): “Antitrust Immunity For Airline Alliances,” Worldwide Air Transport Conference, Sixth Meeting, Montreal
Singapore takes a very different position from other States and it appears that Singapore has very permissive position towards airline alliances due to the adoption of liberalization policies. Singapore grants antitrust immunity even to alliances not containing airlines with Singapore nationality and does not connect Open Skies agreement to the grant of antitrust immunity.\textsuperscript{36}

\textsuperscript{36} Ibid
5. CHAPTER V – CURRENT STATUS OF THE INDIAN CIVIL AVIATION INDUSTRY

5.1. Liberalisation Scenario and Regulatory Regime:

The pace of liberalization has been very slow in the Indian civil aviation industry. Even today, code-share agreement is the most prevalent form of cooperation in the civil aviation industry. India has signed many bilateral air service agreements with countries all around the world. However, these agreements have not been utilized to their full capacity. Currently India has Open Skies agreements with the US and UK and multilateral agreement with Europe. Strategic alliances are new to the country as is evident from the fact that Jet-Etihad alliance is the first strategic alliance in the country. None of the Indian airlines is currently a member of the three largest alliances in the world i.e. Star Alliance, Sky Team and Oneworld. Air India has been waiting ever since 2007 to become a member of the Star Alliance but the membership has not materialized as yet.

As far as the regulatory regime is considered, right now we do not have a proper regulatory framework to deal with antitrust immunities. Grant of antitrust immunity in the civil aviation industry is an issue that India may have to face in the near future because of further liberalization of the aviation sector. As per the present set up, the right to grant antitrust immunity rests with the Government of India. However, the Government of India does not have any policy on the grant of antitrust immunity to the operators in the civil aviation sector.

It is widely considered that the sectoral regulator because of its close proximity to the sector understands best the operational environment of the industry and other intricacies relating to pricing issues, market structure etc. Also the sectoral regulator knows the needs of the businesses operating within the industry well. So, it is important to come up with a strong sectoral regulatory framework that matches the needs of the evolving aviation sector and clearly defines the role and power of each regulatory body without any overlap with other regulatory bodies and the competition authority, which otherwise may pave the way for loopholes.
5.2. Poor Financial Health of the Indian Civil Aviation Industry

Indian aviation is facing its most uncertain phase in more than a decade. After reporting an estimated record loss of just over USD 2 billion in the twelve months ended 31 March 2012, India’s airlines are facing an equally challenging year ahead. Weak balance sheets, increasing costs, regulatory uncertainty, a sluggish Indian economy and a difficult global environment are all having an adverse impact on the financial health of the airlines, especially the poorer performing carriers. In the twelve months ending March 31, 2013, Air India is once again expected to be the worst performer in the industry and to report a loss of INR70 billion (USD 1.3 billion). Kingfisher Airlines has already exited the Indian skies with the cancellation of its license by the DGCA. However, the remaining four private carriers combined could post a modest profit of approximately INR11 billion (USD 200 million).  

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jet Airways</td>
<td>-402</td>
<td>-467</td>
<td>969</td>
<td>-1236</td>
</tr>
<tr>
<td>Spice Jet</td>
<td>-352</td>
<td>61</td>
<td>101</td>
<td>-605</td>
</tr>
<tr>
<td>Kingfisher</td>
<td>-1608</td>
<td>-1647</td>
<td>-1027</td>
<td>-2328</td>
</tr>
</tbody>
</table>

Table 1: Total net profits and losses posted by airlines

One of the major challenges of the air traffic industry in India is the high and growing debt burden of the carriers. Airline industry in India is suffering from huge debt burden close to US $ 20 billion (estimated for 2011-12). While there are number of structural factors that are responsible for this phenomenon, the operating cost environment is adversely impacting the financials of the airline sector. One of the key cost drivers for the airline sector is the price and taxes payable for aviation turbine fuel (ATF) by the scheduled domestic carriers in India.

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37 CAPA Research and Market Analysis (2013): Extracts from the CAPA India Aviation Outlook FY2012/13, CAPA, India
38 FICCI and PwC (2013): Indian aviation: Spreading its wings, Aero India
In an increasingly globalizing airline industry, the survival of an airline carrier depends greatly on its productivity and cost competitiveness. So the Indian airlines will have to undertake major restructuring to improve and reduce costs. This in turn may induce the airlines to create global service networks through strategic alliances.

5.3. Current crisis may trigger further liberalization

There has been a freeze on granting new bilaterals to foreign carriers since 2008, however the prevailing crisis could turn out to be the trigger that leads to a resumption of liberalisation in which previously difficult decisions can move ahead.\(^4^0\) A leading step in this direction has already been taken. Government of India has permitted foreign airline investment of up to 49% paving the way for inflows by the foreign airlines.

Opening up of the civil aviation sector to foreign airline investment will be beneficial to the ailing sector. Investment by foreign airlines will offer an alternative to borrowing that has undermined the financial health of some airlines. Therefore this should result in lower cost of capital to the airline industry. It is relevant to note here that for developing countries like India, foreign investment assumes greater importance because the cost of capital is much higher here whereas in countries like USA, which have large, flexible and matured capital markets, the need to access overseas capital may be less critical as compared to emerging markets. Access to capital will provide a boost to equity and liquidity requirements of the airlines.

The Indian scheduled airline segment is suffering from a combination of decreasing operational margins worsened by rising debt levels and high interest rates, and low investor confidence. For sustained growth of the aviation sector what is required is to address issues of abnormally high aviation turbine fuel [and] airport charges. FDI [foreign direct investment] in this sector would only help scheduled airlines to stay afloat for a shorter period of time.

\(^4^0\) CAPA Research and Market Analysis (2013): ÒExtracts from the CAPA India Aviation Outlook FY2012/13,Ó CAPA, India
However this is not to say that forming strategic alliances will not help the Indian civil aviation sector. In fact, alliances have become a vital strategy for airlines to survive and prosper in todays competitive world. Alliances have become inescapable since an increasingly larger proportion of customers require global connectivity. Also alliances allow airlines to enjoy productivity gains and profitability while increasing customer benefits in many ways. So along with structural reforms, Indian civil aviation sector requires greater liberalization to improve its financial performance.

5.4. Case for Strategic Alliances in the Indian Civil Aviation Industry

Now let us see how we can argue the case for strategic alliances in the Indian civil aviation industry using the Herfindahl–Hirschman Index.

The term $\text{HHI}$ means the Herfindahl–Hirschman Index, a commonly accepted measure of market concentration. The HHI is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. For example, for a market consisting of four firms with shares of 30, 30, 20, and 20 percent, the HHI is $2,600 (30^2 + 30^2 + 20^2 + 20^2 = 2,600)$. The HHI takes into account the relative size distribution of the firms in a market. It approaches zero when a market is occupied by a large number of firms of relatively equal size and reaches its maximum of 10,000 points when a market is controlled by a single firm. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases. Any increase in the index indicates a decrease in competition and an increase in market power, whereas any decrease indicates the opposite.

The agencies generally consider markets in which the HHI is between 1,500 and 2,500 points to be moderately concentrated, and consider markets in which the HHI is in excess of 2,500 points to be highly concentrated. Transactions that increase the HHI by more than 200 points in highly concentrated markets are presumed likely to enhance market power under the Horizontal Merger Guidelines issued by the Department of Justice and the Federal Trade Commission.\footnote{http://www.justice.gov/atr/public/guidelines/hhi.html}
As calculated, in the domestic segment of Indian Airline industry, the HHI for 2005-06 stood at 2568 whereas HHI for 2011-12 stood at 1611. This decline in HHI indicates a shift from a highly concentrated market scenario in 2005-06, (when despite having eight market players) to a moderately concentrated market in 2011-12 where there are only six carriers operating eleven different brands i.e. three Full Service Carriers (FSCs) Air India, Jet Airways, Kingfisher, their respective low cost arms Alliance Air & Air India Express, Jet Konnect and JetLite and Kingfisher Red and three Low Cost Carriers (LCCs) namely Go Air, Spice Jet and Indigo.42

This clearly shows that having few players in the market does not imply that the market is not competitive enough. All that matters is the distribution of market share amongst the players. It should not be skewed but should be fairly distributed amongst the market players even though their number may be few.

Hence we can say that if an Indian airline gets into a strategic alliance with a foreign airline then it may not necessarily reduce competition in the industry. In fact this can be shown by calculating the HHI on the following data. Since we are considering the case for a strategic alliance between a domestic airline and an international airline, we will take into account the outbound passenger market share of the domestic and international airlines operating in the Indian civil aviation industry.

Now let us first calculate the HHI for the international segment of the Indian airline industry for the year 2011-2012.

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Table 2: Pre-strategic alliance HHI (Scheduled International Operation)\(^{43}\)

<table>
<thead>
<tr>
<th>Airline</th>
<th>Market Share (Scheduled International Operation)</th>
<th>Square of Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jet Airways</td>
<td>15.7</td>
<td>246.49</td>
</tr>
<tr>
<td>Emirates</td>
<td>13.04</td>
<td>170.0416</td>
</tr>
<tr>
<td>Air India</td>
<td>11.91</td>
<td>141.8481</td>
</tr>
<tr>
<td>Qatar Airways</td>
<td>4.41</td>
<td>19.4481</td>
</tr>
<tr>
<td>Air Arabia</td>
<td>4.31</td>
<td>18.5761</td>
</tr>
<tr>
<td>Lufthansa</td>
<td>3.42</td>
<td>11.6964</td>
</tr>
<tr>
<td>Kingfisher</td>
<td>3.24</td>
<td>10.4976</td>
</tr>
<tr>
<td>Oman Airways</td>
<td>2.75</td>
<td>7.5625</td>
</tr>
<tr>
<td>British Airways</td>
<td>2.7</td>
<td>7.29</td>
</tr>
<tr>
<td>Sri Lankan Airways</td>
<td>2.45</td>
<td>6.0025</td>
</tr>
<tr>
<td>Cathay Pacific</td>
<td>2.14</td>
<td>4.5796</td>
</tr>
<tr>
<td>Etihad</td>
<td>1.95</td>
<td>3.8025</td>
</tr>
<tr>
<td>Malaysian</td>
<td>1.87</td>
<td>3.4969</td>
</tr>
<tr>
<td>Gulf Air</td>
<td>1.51</td>
<td>2.2801</td>
</tr>
<tr>
<td>Indigo</td>
<td>1.19</td>
<td>1.4161</td>
</tr>
<tr>
<td>Spice Jet</td>
<td>0.86</td>
<td>0.7396</td>
</tr>
<tr>
<td>Jet Lite</td>
<td>0.31</td>
<td>0.0961</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>655.8638</strong></td>
<td></td>
</tr>
</tbody>
</table>

Now using the same data, if we take top six international airlines operating in India based on their market share (Scheduled International Operation) and form hypothetical bilateral alliances in any combination with the six domestic airlines then we will find that the new HHI calculated is again well below the safe harbor of 1800. Even though the post-strategic alliance HHI value

may lie above its pre-strategic alliance value, yet it remains well below the 1800 level, indicating that as of now no competitive concerns arise out of bilateral strategic alliances.

The reason why we have hypothetically formed strategic alliances of all the domestic airlines is that once one of the domestic airlines forms a strategic alliance with an international airline then other carriers have little choice but to follow because, as Dresner and Windle (1996) warned, "airlines that do not enter into alliances will find themselves at a competitive advantage unable to generate traffic from their alliance competitors." The failure to join a major global alliance would leave individual carriers isolated and at a competitive disadvantage (Button et al., 1998). The competition will now be inter-alliances rather than inter-airlines.44

One of the shortcomings of this entire exercise is that we do not have complete data on the market share (Scheduled International Operation) for international airlines. However, the market share of the remaining international airlines is less than 1.51%. So we can safely neglect the data of these airlines without having any significant impact on our results.

44 http://hermes-ir.lib.hit-u.ac.jp/rs/bitstream/10086/19405/2/0201102101.pdf
6. CHAPTER VI - CONCLUSION

Cooperation amongst airlines across the globe has become indispensable in the airline industry. In this globalizing world, customers demand a "from anywhere to anywhere service" which certainly a single airline can not offer. In addition to this there are very strong efficiency arguments in favour of cooperation amongst airlines in terms of economies of density, improved service and lower fares. This inevitability of cooperation has led to a rapid expansion of strategic alliances. To maximise efficiency gains governments have granted antitrust immunity to alliances which has further allowed substantial cooperation and integration amongst the airlines. However, there is no denying the fact that there is scope for potential anti-competitive effects arising especially on routes where alliance partners' services overlap. But in the presence of an efficient and effective regulatory framework these effects can be checked or lessened. For example, most countries have required an open skies agreement between the governments of the alliance partners as a pre-condition for granting immunity to alliances so that any possibility of price discrimination and abuse of dominant position by any airline can be checked.

So taking a cue from the liberalization policy adopted globally, India should further liberalise its aviation sector. The pro-competitive efficiency arguments can not be neglected compromising public interest. As of now, even after a wave of consolidation in the airline industry in the form of strategic alliances, the efficiency arguments seem to outweigh the potential anti-competitive effects. In fact, these collaborative partnerships might improve the financial health of this ailing industry and place the industry as a whole in a more sustainable position. But one thing that needs serious consideration is the current regulatory set up. Liberalisation policy will only be successful if only there is a robust well-functioning sectoral regulatory framework which can guide the authorities through the maze of complex collaborative arrangements without compromising consumer interest at any point of time.
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