COMPETITIVE ASSESSMENT OF COOPERATION IN THE CIVIL AVIATION INDUSTRY

DISSERTATION REPORT SUBMITTED FOR THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR EXECUTIVE BBA (AVIATION OPERATIONS)

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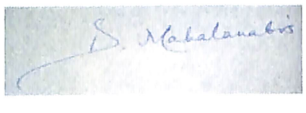

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This is a bonafide record of research work carried out by him under my supervision The contents of this thesis, in full or in parts, have not been submitted to any other Institutes or University for the award of any degree or diploma. In my opinion it is fully adequate, in scope and utility as a dissertation towards partial fulfilment for the award of degree of Executive BBA(AO).

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ABSTRACT

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. Civil Aviation sector epitomizes modern, resurgent and fast developing Indian Economy which is moving to be a super power of the world in the near future. The contribution of Civil Aviation sector in providing employment opportunities directly, indirectly and induced is immense. This sector gives fascinating opportunities to an array of industries such as Airports, Airlines, Cargo, MRO, Ground Handling, ANS, Retail business, Real Estate etc.

CHAPTER 1
INTRODUCTION

Civil Aviation Sector is of National importance as it contributes significantly to the process of development of the country with as a result of enhanced productivity and efficiency in the movement of goods and services by providing access to safe, secure and affordable Air services and world class infrastructure facilities. The most important contribution Aviation makes to the economy is through its impact on the performance of other industries by enhancing efficiency and competitiveness by offering most efficient and fast transportation facility. This sector also contributes substantially to the GDP. Civil Aviation sector epitomizes modern, resurgent and fast developing Indian Economy which is moving to be a super power of the world in the near future. The contribution of Civil Aviation sector in providing employment opportunities directly, indirectly and induced is immense. This sector gives fascinating opportunities to an array of industries such as Airports, Airlines, Cargo, MRO, Ground Handling, ANS, Retail business, Real Estate etc. One of the important induced effects of air transport is on the tourism sector of an economy.

The vast geographical expanse and terrain of India makes air transport a necessity and not the luxury service as it was often perceived in the past. Air transport is the fastest and safest mode of transport for relatively long distance. Total air passenger traffic in India has increased from 109 million in 2008-09 to 143 million in 2010-11. Available forecasts suggest that by 2020 air passenger traffic will be around 290-300 million. To meet this huge air traffic demand, the country will require approx. 350-400 operational airports across the country. This implies that huge private investments will have to be attracted as AAI alone will not be able to raise the funds (Rs. 60 - 70,000 Crores). Similarly, India is likely to have a 1,000 plus fleet strength of aircraft requiring huge investment of approx. US $ 90 billion. In this respect, the effort taken by Ministry of Civil Aviation to notify a National Civil Aviation Policy is highly commendable as it will provide a blueprint and a road map/clear

vision to all the stakeholders including the government in understanding their respective roles for ensuring the growth and development of the sector in the next decade .

1.1 Types of Air Transport Services

The civil aviation industry consists of three major segments:

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.

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.

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.

1.2. 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.

CHAPTER 2
LITERATURE REVIEW

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.

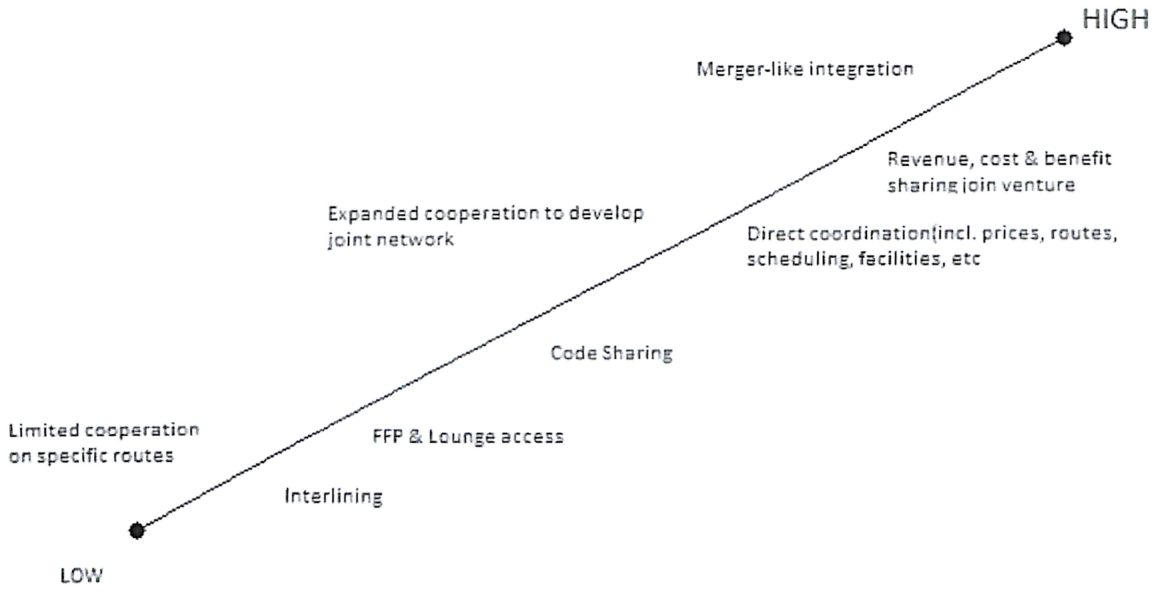
- The civil aviation industry is a high cost industry i.e. it entails not just high fixed costs (fleet size) but also high operating costs (fuel cost, taxes, landing charges etc) and hence it suffers from insufficient profitability. On top of this, presence of excess capacity, which is another characteristic 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

2.1. 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.



A : **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).

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 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.
- **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. So strategic alliances have become the most commonly adopted model of cooperation amongst airlines across the world.

2.2. 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 liberalisaton, 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.7 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 – 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.

CHAPTER 3
INDUSTRY PROFILE

The history of civil aviation in India began in December 1912, with the opening of the first domestic air route between Karachi and Delhi. This was by the Indian state Air services in collaboration with the imperial Airways, UK. Three years later, the first Indian airline, Tata Sons Ltd., started a regular airmail service between Karachi and Madras without any patronage from the government.

At the time of independence, the number of air transport companies, which were operating within and beyond the frontiers of the company, carrying both air cargo and passengers, was nine. It was reduced to eight, with Orient Airways shifting to Pakistan. These airlines were: Tata Airlines, Indian National Airways, Air service of India, Deccan Airways, Ambica Airways, Bharat Airways and Mistry Airways.

In early 1948, a joint sector company, Air India International Ltd., was established by the Government of India and Air India (earlier Tata Airline) with a capital of Rs 2 crore and a fleet of three Lockheed constellation aircraft. Its first flight took off on June 8, 1948 on the Mumbai (Bombay)-London air route. At the time of its nationalization in 1953, it was operating four weekly services between Mumbai-London and two weekly services between Mumbai and Nairobi. The joint venture was headed by J.R.D. Tata, a visionary who had founded the first India airline in 1932 and he himself piloted its inaugural flight.

Air transport is the most modern, the quickest and the latest addition to the modes of transport. Because of speed with which aeroplanes can fly, travel by air is becoming increasingly popular and hence the growth of air cargo in India has also been manifold though it might not have kept pace with the progress made all over the world.

Director General of Civil Aviation collects data pertaining to Civil Aviation from various sources vis Air India, Air India Express, Alliance Air, Indian Airlines, Private Operators (Scheduled and Non- scheduled),Foreign Airlines and the airports.

Geographical Coverage: The traffic and operating statistics of Indian Scheduled Domestic/International Operations and of foreign Airlines (To and From India)

- Aircraft Hours Flown- These figures represent the total number of hours flown by aero planes carrying the scheduled revenue traffic.
- Aircraft Kilometres Flown- These figures represent the total kilometres flown by aeroplanes carrying the scheduled revenue traffic.

- Tonne Kilometres Available- The figures are obtained by multiplying the total tonnage offered to the public for air transportation of passengers, freight and mail by the kilometres flown.
- Passenger, Freight and Mail Carried- The number of passengers carried represents the total number of revenue passengers carried on different air-routes treating passengers travelling by planes for two or more routes as having performed two or more journeys.
- Passenger Kilometres Performed- A passenger kilometre is performed when a passenger is flown by a distance of one kilometre. Calculation of passenger kilometres performed equals the sum of the products obtained by multiplying the number of revenue passengers carried on each flight stage by the distance.
- Tonne Kilometres Performed- Represents aggregates based on the product of the tonnage of freight or mail as the case may be, and the distance through which the load was carried. The figures relating to total load tonne kilometres take into account all kinds of traffic including passengers. As per ICAO guidelines the weight of a passenger is taken to be 90 KGs.
- Passenger Load Factor- Represents the percentage of passenger kilometres performed to the seat kilometres available.
- Weight Load Factor- Represents the percentage of tonne-kilometres performed (passenger, freight and mail) to the tonne kilometres available.

It is a very well known fact that aviation sector not only brings immense benefits to communities and economies around the globe, but also is a key catalyst of economic growth, social development and tourism. It facilitates connectivity and access to international markets. Air transport currently supports 56.6 million jobs and accounts for over US$ 2.2 trillion of the global gross domestic product (GDP).

Air passenger traffic in India is increasing on a tremendous pace. The sub-continent's airport infrastructure is undergoing modernization with the induction of most advanced facilities. It includes setting up of new Greenfield airports and installation of security, surveillance and air traffic navigation systems.

India is currently the 9th largest aviation market handling 121 million domestic and 41 million international passengers. Today, more than 85 international airlines operate to India and 5 Indian carriers connect over 40 countries.

Market size

- Total domestic passengers carried by the scheduled domestic airlines between January and May 2013 were 25.998 million, as against 25.808 million during the corresponding period of previous year thereby registering a growth of 0.74 per cent, revealed the statistics from Directorate General of Civil Aviation (DGCA).
- No-frill carrier IndiGo lead in terms of market share with 29.7 per cent of the pie, followed by Jet Airways-Jet Lite combine at 25.3 per cent, Air India Domestic at 19.2 per cent, Spice Jet at 17.5 per cent, and Go Air at 8.3 per cent for the month of July 2013.
- The air transport (including air freight) in India has attracted foreign direct investment (FDI) worth US$ 456.84 million from April 2000 to July 2013, as per the data released by Department of Industrial Policy and Promotion (DIPP).

Key Developments and Investments

- Jet has become the first Indian airline to place an order of fuel-efficient 737 Max aircraft with the plane-maker Boeing. Boeing and Jet have recently inked a purchase agreement wherein Jet has agreed to buy 50 such planes at a cost of around US$ 5 billion. The agreement is still under negotiation (for discounts).
- The service of 737-Max is expected to commence by 2017.
- India's first ever aviation university, the Rajiv Gandhi National Aviation University at Rae Bareli in Uttar Pradesh, will start imparting training to aspiring pilots, aircraft engineers and cabin crew in September 2014. The educational entity is a Government organisation that has been developed to acknowledge the industry's chronic talent shortage.
- The university will induct 1, 000 students by 2018 and eventually, all flying schools in India will get affiliated to this university.
- The Government of Haryana plans to establish a cargo airport in the state by taking up Public Private Partnership (PPP) mode for the green-field project at Meham in Rohtak. The Haryana State Industrial and Infrastructure Development Corporation (HSIIDC) will be the equity partner for bearing the cost of land acquisition for the project.
- India's first indigenous aircraft carrier (IAC), being developed at the Cochin Shipyard, has been launched in August 2013. The 40, 000 tonne-warship machinery is expected to be operational by 2018. It is done with major fittings and underwater work. Now the superstructure, the upper decks and out-fittings are to be worked upon.

Government Initiatives

The Indian Government is intensely dedicated for the development of the Indian aviation industry and has introduced several policies and regulatory reforms to boost private participation and investments in the same. Recently, the Government allowed 49 per cent FDI by foreign airlines in the sector.

- The Government has finally given its nod to the US$ 900 million-Jet-Etihad deal, embarking on the biggest FDI in Indian aviation sector. The Foreign Investment Promotion Board (FIPB) has asked for certain amendments in the deal though. Once the modified deal is approved by the Cabinet Committee on Economic Affairs, Etihad would be eligible to become the owner of 24 per cent stake in Jet for US$ 379 million.
- Not only that, Jet Airways has also been allowed to go for code-sharing with five airlines — American Airlines, Malaysian, Garuda of Indonesia, Vietnam Airlines and Kenya Airways – by the aviation ministry. The nod would enable Jet expand its global footprint and become the biggest Indian carrier in terms of network.
- A code-share enables two or more airlines share the same flight. Passengers will buy ticket from one airline and take a flight operated by another airline, allowing partners to enhance their reach across the global sky.
- Furthermore, Mr K.C. Venugopal, Minister of State for Civil Aviation, has recently informed Rajya Sabha that 17 new airports have been proposed for construction during the 12th Five Year Plan.
- The details of the proposals have not been disclosed yet.
- The Indian Government has also been visionary in terms of the talent requirement for the flourishing aviation industry in future. In order to address the shortage of skilled, managerial and operational personnel in aviation, the bill to establish the aviation university (which has been already discussed above), has been forwarded to the Lok Sabha Secretariat. The university will offer and endorse aviation studies, teaching, training, research and extension work with focus on emerging areas of studies such as aviation management, aviation regulation and policy, aviation science and engineering, transportation of dangerous goods and other related fields, according to the proposal. The Indian Government has calculated the project outlay of Rs 202 crore (US$ 31.92 million) for the institution until 2019.

India's Directorate General of Civil Aviation (DGCA) is the country's civil aviation regulator. Its vision is to "Endeavour to promote safe and efficient Air Transportation through regulation and proactive safety oversight system.

Its roles are, among other things, the registration of civil aircraft, formulation of standards of airworthiness for civil aircraft registered in India and granting of certificates of airworthiness, licensing of pilots, aircraft maintenance engineers, flight engineers and air traffic controllers, certification of aerodromes and CNS/ATM facilities, granting of Air Operator's Certificates to Indian carriers and regulation of air transport services operating to/from/within/over India by Indian and foreign operators, including clearance of scheduled and non-scheduled flights of such operators, conducting investigation into accidents/incidents and more.

Civil Aviation sector epitomizes modern, resurgent and fast developing Indian Economy which is moving to be a super power of the world in the near future. The contribution of Civil Aviation sector in providing employment opportunities directly, indirectly and induced is immense. This sector gives fascinating opportunities to an array of industries such as Airports, Airlines, Cargo, MRO, Ground Handling, ANS, Retail business, Real Estate etc. One of the important induced effects of air transport is on the tourism sector of an economy. There are great opportunities and the future is even more exciting. Setting up of world class airport infrastructure facility and offering a most modern and reliable Air connectivity together with integrated transportation connectivity holds the key.

The vast geographical expanse and terrain of India makes air transport a necessity and not the luxury service as it was often perceived in the past. Air transport is the fastest and safest mode of transport for relatively long distance. Total air passenger traffic in India has increased from 109 million in 2008-09 to 143 million in 2010-11. Available forecasts suggest that by 2020 air passenger traffic will be around 290-300 million. To meet this huge air traffic demand, the country will require approx. 350-400 operational airports across the country. This implies that huge private investments will have to be attracted as AAI alone will not be able to raise the funds (Rs. 60 - 70,000 Crores). Similarly, India is likely to have a 1,000 plus fleet strength of aircraft requiring huge investment of approx. US $ 90 billion. In this respect, the effort taken by Ministry of Civil Aviation to notify a National Civil Aviation Policy is highly commendable as it will provide a blueprint and a road map/clear vision to all the stakeholders including the government in understanding their respective roles for ensuring the growth and development of the sector in the next decade .It is also extremely important that the policy should address the discrepancies in the existing rules/acts within the Civil Aviation sector thereby removing scope for different interpretations and to have cohesiveness in interpretation and implementing various rules/regulations.

Detailed comments on various issues are furnished below:

1. AIRPORT

Airports are a critical part of the transport infrastructure. It is important that Airport Infrastructure gets developed in anticipation of meeting the future growth in demand for air travel. Therefore, well planned, efficiently operating, modern world class airports are important national assets. There is a vital need for the government to come up with the long term policy for the Airport Sector. The policy issues highlighted for discussion by FICCI do not contain Airport as one of the topic. It is very essential that a policy on the Airport must be part of the National Civil Aviation policy particularly the policy on issues of private participation, Greenfield policy, Brownfield policy, Cargo Policy, Hub Policy, development of non-metro airports and at Hilly and Remote areas etc. The Policy must, most importantly, address the economic viability issues of airports.

- Civil Aviation Policy must ensure that airports are offered fiscal benefits similar to industries, which includes benefits for certain number of years e.g. exemption from Income Tax, Property Tax, Non Agricultural Tax (N.A. Tax), Electricity duty, Royalty on minor minerals etc. Additionally, open land should be exempted from N.A. Tax and post exemption period electricity duty should be as is applicable for industries and N.A. tax should also be based on rates applicable on industries.
- The policy objective must be to ensure sustainable airport capacity to meet the demand forecasted for Passengers and Cargo traffic.
- Ensure total safety and security of air transportation by introduction of state-of-art air traffic technology, equipments and training facilities.
- Develop Airport as a Multi-modal Transportation Hub, by integrating the Airport with other modes of transport like Railway, Highway and Seaports to enable seamless transportation across the country 1.5 Policy should consider granting infrastructure industry status to Airport sector.

2. CARGO POLICY:

- Trade in Airports/Aviation Sector is affected on account of several factors such as custom clearance, warehousing issues and intervention of many agencies. Indian Air Cargo industry is at an inflection point. Air Cargo through put has more than doubled in the last decade. Air Cargo policy should focus on making India a preferred transhipment hub for global air cargo movement. The right vision, road map, forward looking policy and regulatory framework is essential for taking India to the rightful place in global air cargo industry.
- The processing time for major export handling activities / import cargo clearance are far below the international standards. Restricted working

hours for cargo clearance affects piling up of cargo and puts tremendous pressure on the capacity and cargo operations and requires 24x7 cargo clearance working by all agencies such as Customs dept. and Customs house agents etc. Hence a clear policy to streamline the regulatory procedures in all the airports in order to reduce the dwell time and to have 24*7 cargo clearance working/customs operations in all airports is essential.

- Policy to minimize/eliminate manual intervention in all clearing process.
- Policy to make all the custom activities free for the operators. Recent issue of imposing Customs cost recovery on Greenfield Airports adversely affects the import / export business to be withdrawn as any additional cost will adversely affect the trade. Moreover, Customs being a sovereign function of the Govt. and the cost of that should be borne by the Government and not be charged from the Operators.
- Policy to enhance the efficiency of all the agencies working at the airports. Apart from Customs, several other agencies are also responsible for clearance of goods at Airports and they must improve their processes for easy and fast clearance. The clearance process being extremely slow the capacity as well as throughput of Perishable cargo is greatly impacted, besides inconvenience to the Importers.

3. HUB POLICY

- Policy should be framed to make all strategically located Indian Airports as Hub and Spoke model to make them most efficient, cost effective, liable, safe, secure and comfortable air travel to passengers. There are substantial economic gains which can be derived from a Hub airport including improving employment opportunities.
- The policy should be to have an integrated transport model connecting Seaport, Road and Rail Transport and to certain extent Public Road transport utilities to make hub-spoke model most efficient and cost effective by utilizing economies of both scale and scope and provide passengers and cargo seamless connection and more efficient services.
- The policy needs to position India as a global hub by effectively utilizing world class airport infrastructure capacity to handle large movement of aircraft and augment trade and tourism opportunities and to ensure seamless transition for the passenger and the airline.
- Policy should be to facilitate a collaborative approach between both airports and airlines to work in tandem to handle the international competition and the growing air passengers and cargo movements. Hub-Spoke model provides both cost and demand advantage over smaller networks.

- Policy should be to coordinate various agencies including Immigration, Customs, CISF etc. to make available the passenger convenience, connectivity/network etc. matching international benchmarks/standards.

4. SLOT POLICY

- As per OMDA and SSA, the Airport operator is solely responsible for the management and allocation of both domestic and international slots.
- Presently slots allocation is done as per the IATA Worldwide Slot Guidelines and also various guidelines issued by MOCA/DGCA from time to time.
- Civil Aviation Policy to be framed to protect the legitimate right of airports to allocate on a fair, transparent and user friendly basis.

5. BILATERAL POLICY

Excessively liberal bilateral towards Middle-East, Singapore and Sri-Lanka allow the respective carriers to leak traffic from non-metro airports. Most of the Bilateral allow "All" Airports as "point of call" thus do not support funneling of traffic from Metro Airports. So foreign Airlines should be allowed to operate To & Fro Metro Airports only. A review on the bilateral therefore is in the national interest. Also, the domestic carriers of Indian origin should be allowed to operate to international sectors availing the unutilized seats granted to the national carrier.

6. MARKET ACCESS POLICY

Civil Aviation market contributes significantly to the process of development of the country. It also contributes to GDP substantially. All this demonstrate the significant footprint the Civil Aviation sector has on the Indian economy. Considering the importance of this sector there should be an easy entry and exit policy for the Civil Aviation sector. The policy must encourage investment for both Indian and foreign investors. It must also ensure removal of all the bottlenecks for easy access.

7. LAND USE ISSUES

Land Policy should be aimed at balancing and facilitating land acquisition for various public purposes including infrastructure development, industrialisation and other urbanisation but at the same time meaningfully addressing the concerns of land owners. The land acquisition should be

aimed at infrastructure development in the country. Land acquisition and resettlement and rehabilitation policy for infrastructure development must not be cumbersome and should not be expensive. The scheme of compensation should not act as a barrier and burdensome to the extent discouraging future infrastructure development activities. In PPP model infrastructure development the responsibility of acquiring the land must be with the government and there should not be any procedure of seeking consent of the inhabitants and exorbitant price and cumbersome procedures.

8. FOREIGN DIRECT INVESTMENT (FDI)

The FDI policy should be to attract foreign investment in Indian Civil Aviation market. As far as airport sector is concerned, the existing policy allows 100% funding through FDI whereas in many of the segments of the Civil Aviation sector there are restrictions in allowing FDI. By facilitating free flow of FDI, the industry will be able to meet the requirements of funds, get the technical knowhow and also facilitate global access. The new Civil Aviation policy must address the issue, if any and facilitate flow of FDI to the maximum extent possible.

9. REGULATORY PHILOSOPHY

The concession/project agreements already signed should be adhered to, to maintain the investor confidence. Ministry of Civil Aviation (MoCA) should issue directions to AERA in case of deviations in the policy. MoCA should have unequivocal/absolute power to issue Directions to the regulator. Regulatory philosophy should be predictable and should not be subject to frequent changes to ensure regulatory certainty of the sector. The policy should support in establishing a forward looking investor friendly regulatory environment which will ensure a level playing field for competing suppliers and also ensure credibility in the ability of the regulatory establishment to safeguard the interest of both the seekers and providers of service.

10. ESSENTIAL AIR SERVICES FUND (EASF)/REGIONAL AIR CONNECTIVITY FUND (RACF)

Development of rural and remote areas have a direct bearing on the air connectivity between these places ensuring essential air services to the remote and inaccessible areas of the country. In order to set up the required

infrastructure in such remote areas, it is essential to establish non lapsable essential air service fund to provide explicit and direct subsidies to airport operators and airlines to meet the shortfall of viability gaps in line with USO fund in telecom. A policy should consider setting up of such a funding mechanism for the civil aviation sector.

11. MAINTENANCE REPAIR AND OVERHAUL (MRO)

Available forecasts indicate that India will have a huge fleet strength of aircraft by 2020 i.e. approx. 1200+ aircrafts for Scheduled flights, 1000+ Helicopters, 2000 General Aviation aircraft etc. India has therefore the potential to become a global MRO hub due to its low cost, favourable geographical location, availability of technically skilled/certified aviation personnel. Also, considering that India's share is only 1% of global MRO market, developing MRO facility in all the major airports in India is essential. The policy should address this issue of setting up of MRO facility by facilitating investment in this sector and also making available the land near the airport. The policy should also address the issue of the present high tax regime which is causing a major detriment for the growth of MRO industry.

The Indian Aviation Industry has been going through a turbulent phase over the past several years facing multiple headwinds – high oil prices and limited pricing power contributed by industry wide over capacity and periods of subdued demand growth. Over the near term the challenges facing the airline operators are related to high debt burden and liquidity constraints - most operators need significant equity infusion to effect a meaningful improvement in balance sheet. Improved financial profile would also allow these players to focus on steps to improve long term viability and brand building through differentiated customer service. Over the long term the operators need to focus on improving cost structure, through rationalization at all levels including mix of fleet and routes, aimed at cost efficiency. At the industry level, long term viability also requires return of pricing power through better alignment of capacity to the underlying demand growth.

While the domestic airlines have not been able to attract foreign investors (up to 49% FDI is allowed, though foreign airlines are currently not allowed any stake), foreign airlines may be interested in taking strategic stakes due

to their deeper business understanding, longer investment horizons and overall longer term commitment towards the global aviation industry. Healthy passenger traffic growth on account of favourable demographics, rising disposable incomes and low air travel penetration could attract long-term strategic investments in the sector. However, in our opinion, there are two key challenges:

aviation economics is currently not favourable in India resulting in weak financial performance of airlines and

Internationally, too airlines are going through period of stress which could possibly dissuade their investment plans in newer markets.

Besides, foreign carriers already enjoy significant market share of profitable international routes and have wide access to Indian market through code-sharing arrangements with domestic players. Given these considerations, we believe, foreign airlines are likely to be more cautious in their investment decisions and strategies are likely to be long drawn rather than focused on short-term valuations. On the proposal to allow import of ATF, we feel that the duty differential between sales tax (averaging around 22-26% for domestic fuel uplifts) being currently paid by airlines on domestic routes and import duty (8.5%-10.0%) is an attractive proposition for airlines. However the challenges in importing, storing and transporting jet fuel will be a considerable roadblock for airlines due to OMCs monopoly on infrastructure at most Indian airports. From the working capital standpoint too, airlines will need to deploy significant amount of resources in sourcing fuel which may not be easy given the stretched balance sheets and tight liquidity profile of most airlines.

CHAPTER 4

RESEARCH DESIGN, METHODOLOGY

&

PLAN

4.1 Research Design

The study is of both descriptive and analytical type. So both Primary and secondary data will be used for the study. The study involves the data collected from the primary as well as secondary sources. The primary data has been collected with the help of survey questionnaire conducted among the employees of Air India and Jet Airways. The secondary data has been collected from the books, articles, journals, magazines, newspapers, annual reports of the Air India and Jet Airways and various websites. A simple random sampling technique is adopted to carry out the study.

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.

In terms of other sources for data collection, I ensured that the program allowed me to emphasize on direct and frequent interaction with the airlines, through direct observation and on site visits with industry stakeholders, as well as meetings with distinguished industry leaders, and visiting of certain places and finally evaluating answers. This entailed a comparative analysis where data from different airlines, at the same point in time or same environment settings over a period of time were analyzed in order to identify similarities and differences. Graphs were used in the analysis and interpretation of data, justification being that they clearly demonstrate the competitive aspects and their correlation to strategy formulation.

4.2 .Data Source

Primary Data:

Primary data are those data which is collected first time by researchers or any agencies.
To acquire primary data for this study, primary research had to be conducted. This makes a discussion on research design necessary to explain how the research was conducted.

Secondary Data:

For secondary data I go through the reputed journals, magazines, news papers, books published data of government agencies related to Aviation Industry.

Secondary data is defined as any data originated for some purpose other than the present research objectives. This type of data includes findings based on research done by research organizations, data generated for in-house studies by organizations and even customer information collected by an organization's sales or credit department. Secondary data plays a vital role in the research process (Tustin et al 2005:150).Due to the fact that secondary data already exists, it has the advantage of already being available, whereas in the case of primary data there is a delay until the results become available.

• **Lack of Availability**- This occurs when for some research questions there are simply no available data.

• **Lack of relevance-** It is common for secondary data to be expressed in units and measures that cannot be used by the researcher for the study at hand.

• **Inaccuracy-** Users of secondary data should always access the accuracy of the data as there are a number of potential sources of error when a researcher gathers, codes, analyses and presents data. Any report that does not mention possible sources and ranges of errors should be suspect.

• **Insufficient Data-** Even if data are available, relevant and accurate, there still might not be sufficient data to make a decision or bring closure to a problem. External sources can be published data (such as that obtainable from libraries), syndicated sources (standardized on behalf of a group of clients by organizations or external databases (such as the Internet), while internal sources include sales invoices, customer complaints, service records and warranty card returns.

When evaluating secondary data obtained, it is vitally important to consider factors such as when the information was collected, who the information was collected by and how it was collected (Cant 2005:68), since incorrect data could have a large impact on the outcome of the study. Secondary data can be obtained from the internal records of an organization or sources external to the organization. If secondary research is insufficient to answer the research problem, the researcher should not automatically pursue primary research, as primary research is very costly and researchers should first

estimate the value of the information that could be obtained. If the benefit gained by the research is greater than the cost, researchers may pursue primary research (Gerber-Nel 2004:164). If, however, the cost is greater than the benefit sought, researchers should reassess the necessity of primary research and consider using only secondary data. In this exploratory study, secondary research was undertaken to investigate customer service in selected restaurants to establish criteria
for excellent customer service to be used as a benchmark for establishing relationships with customers.

4.3 Limitation of study

During the study a number of limitations and constraints were faced and It was difficult to collect data from all the Indian airlines companies, therefore; only Air India was selected for the purpose of the study as they were comparatively easy for the researcher to approach. It was difficult to cover all regions of the country, on account of restraint of time.

CHAPTER 5

DATA ANALYSIS AND INTERPRETATION

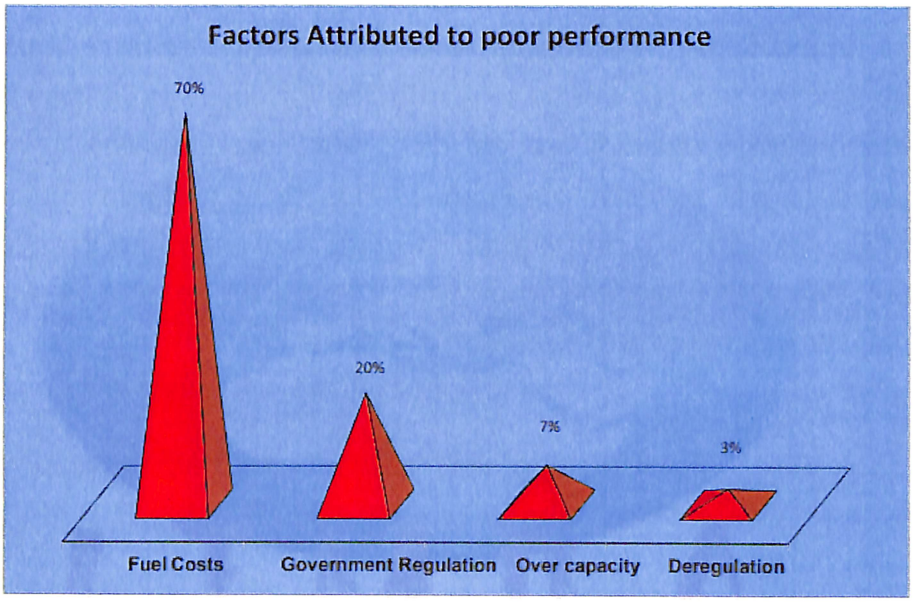
Data Analysis

Data collected through questionnaire responses from airlines was meant to attempt to address the issue of competitive intensity from the perspective of all the aspects addressed in literature review. The analysis comprises of my impression through examining data, interpreting it via forming an impression as reported in the graphs shown below. The analysis also entails the range of processes and procedures where I moved from the qualitative data collected into an explanation, understanding and interpretation of airlines and situations which were investigated. The analysis attempts to identify any of but not limited to the following;

- Management interpretation of the airline competitive world
- Why they gave that point of view
- How they came to that view
- What they have been doing
- How they conveyed their view of that situation of competition
- How they identify or classify their airlines through what they say

Data was scanned and segmented. It was coded into themes, topics; ideas terms and key words. Codes were identified through previous research as tabulated in literature view, questionnaire, presuppositions and my previous knowledge of the subject area that I was researching. I did ascertain patterns which represent major issues, leading to coded areas i.e. the competitive behaviour of airlines in a given environment, strategies and tactics, relationships of airlines, general concepts and constant comparison of the data from different airlines, at the same point in time or same environment settings over a period of time.

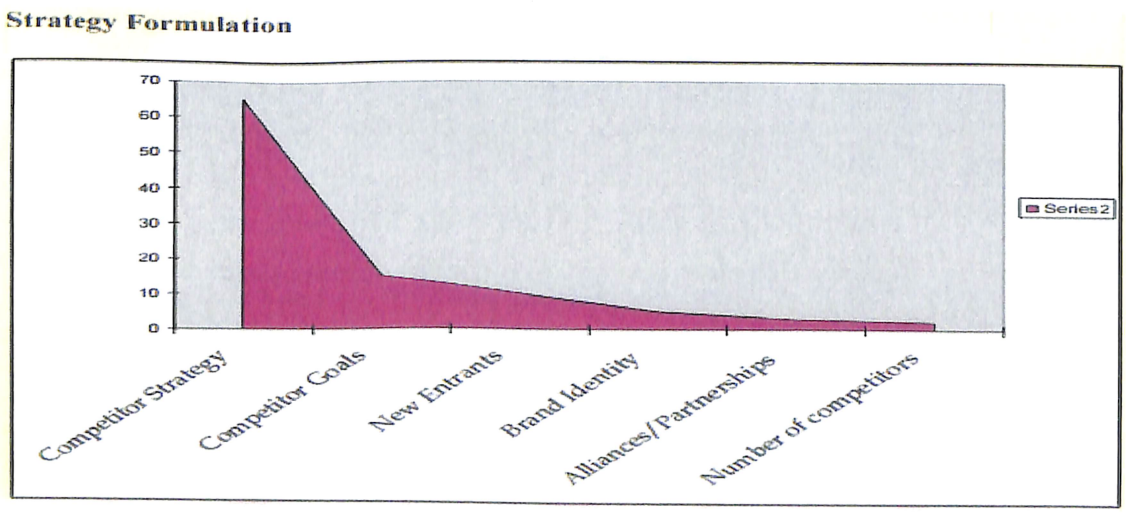
B: Percentage ranking of factors attributed to Poor Performance of Airlines



70 percent of the respondents ranked fuel costs as the highest contributor to poor airline performance followed by government regulation, overcapacity and also deregulation to a very small extend. Managers indicated during interviews that their fleet renewal programmes were meant to enhance fuel efficiency in their operations

However the 20 % reflected as contribution to poor performance due to government regulation was mainly echoed by respondents from the group of African airlines, a reflection of the fact that the majority of these African airlines are parastatals wholly owned by their governments. This group of airlines confirmed that government regulation had adverse consequences and no incentives to reduce costs.

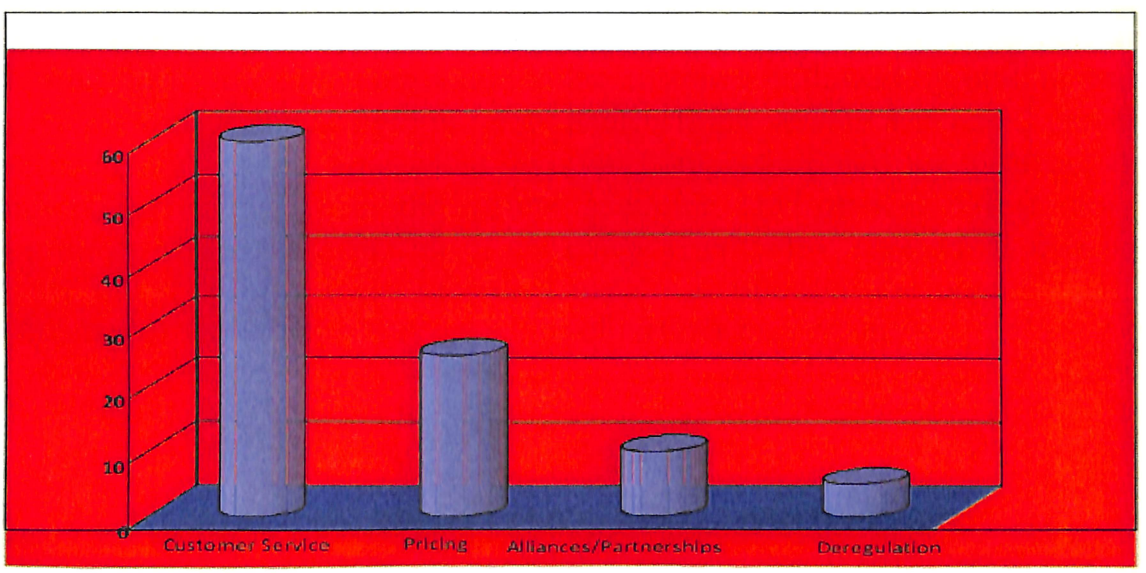
C: Percentage Ranking of Factors considered in strategy formulation



The issue of intensity in competition is clearly reflected and rated as a highly critical component in strategy formulation. All the respondents rated competitor strategy, goals and new entrants at 60, 12 and 10 percent respectively. Brand identity and alliances were reflected not as a major issue in strategy formulation. This confirms the managers sentiments that the issue of formulating strategies is choosing whether the organisation will perform different activities than its competitors or at least execute similar activities but more efficiently. The new entrants were rated low at 10 percent because the respondents confirmed that these are affected by the high costs of entering the airline industry.

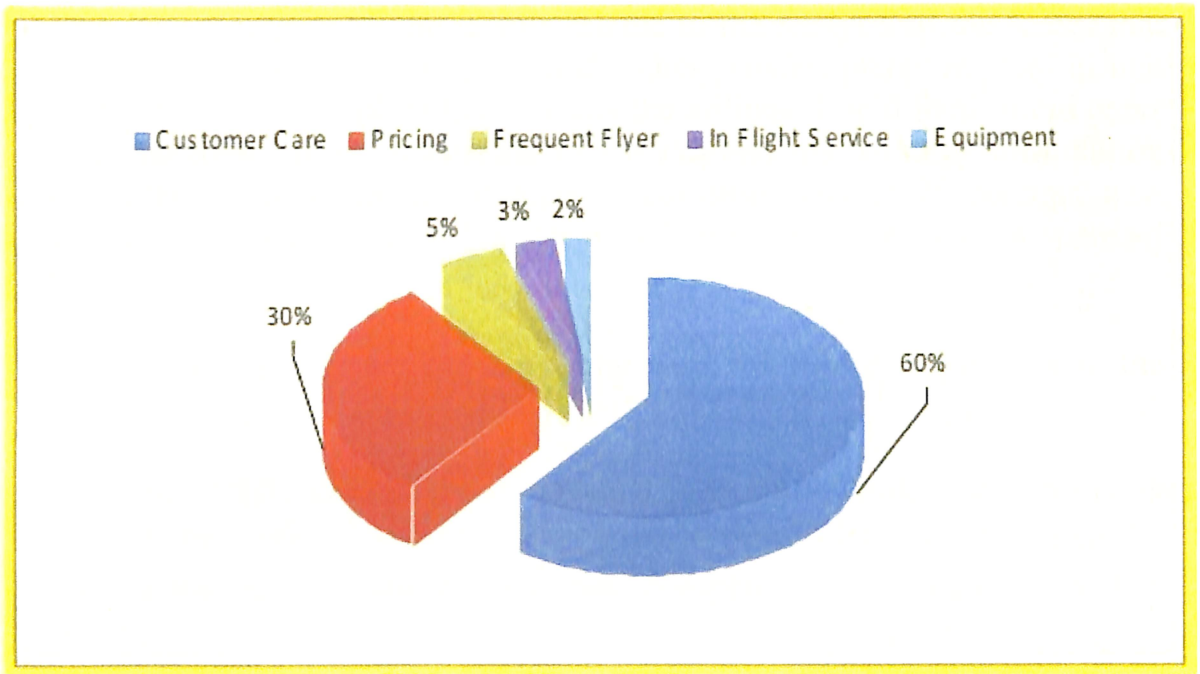
D: Factors Contributing to Competitive Intensity

VALUE ADDITION



The highest contributor to competitive intensity as indicated by 80 percent of the respondents was the issue of customer service, followed by pricing. Of less significance was the impact of alliances or partnerships and deregulation which were mentioned by only 8 and 2 percent of the respondents respectively. Airline managers believe alliances are not simple to create, develop and support , hence some alliance projects often fail.

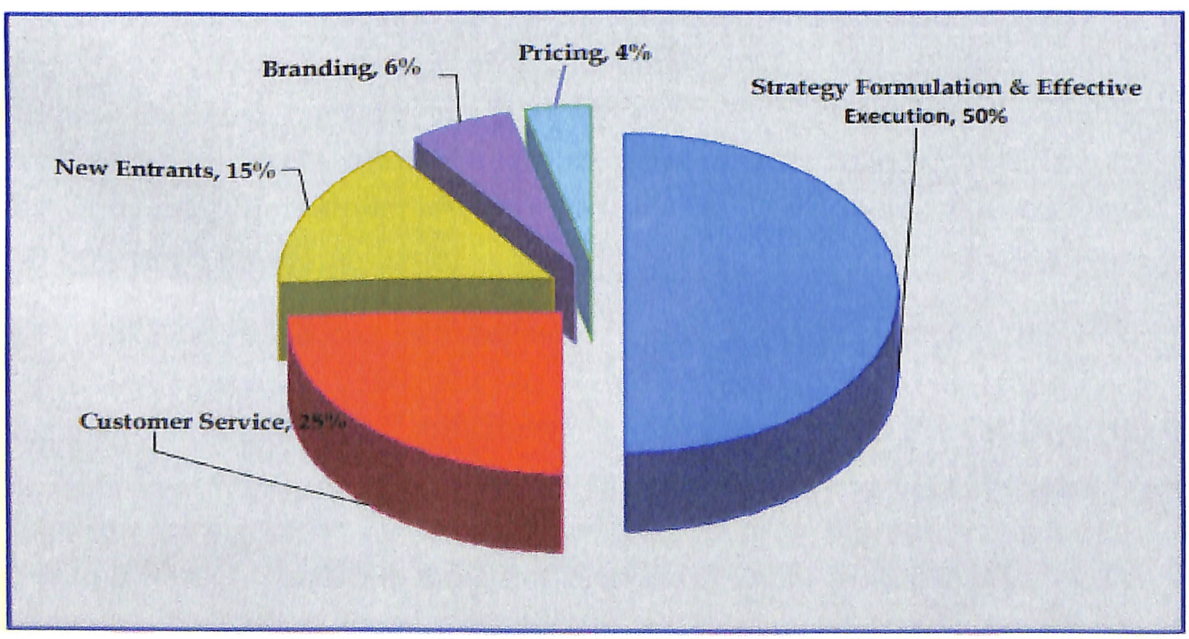
E: Percentage ranking of factors adding value to Customers.



The respondents clearly indicated that customer care, ranked at 60 percent, has a critical role in adding value to the customer followed by pricing at 30 percent, with frequent flyer program and in-flight service at 5 and 3 percent respectively. These same value addition components add up to create the competitive intensity in the airline operating environment. Great airline customer service is made up of consistency, empathy, support of frontline staff and style. The focus of policy makers is often on the potential price effects that various business decisions of airlines may have.

F: Surviving Competitive Intensity

COMPETITIVE INTENSITY



When you aggregate all the factors related to the analysis of the forces that determine competitive intensity and other environment in the airline industry, the above graph indicates areas the airlines should focus on in order to survive competition. According to the respondents, strategy formulation and implementation tops at 50 percent, customer service 25 percent, new entrants 15 percent, with branding and pricing at 6 and 4 percent respectively.

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 "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 (302 + 302 + 202 + 202 = 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.

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 Jet Lite and Kingfisher Red and three Low Cost Carriers (LCCs) namely Go Air, Spice Jet and Indigo.

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.

G: Table: Pre-strategic alliance HHI (Scheduled International Operation)

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

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.

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.

Chapter 6

CONCLUSION AND SCOPE OF FUTURE WORKS

6.1 Major Findings

- Industry competitive intensity is determined by the number of competing firms, their¬ competitive strategies, and the industry competitive forces. The competitive intensity of the industry determines how difficult it is for the business to earn a sufficient profit. Competition in the airline industry drives down the profits that can be achieved by the airlines.
- Ultra complex pricing strategies have spectacularly failed the test of time. Airlines are¬ advised that price wars tend to increase total industry demand and consumer surplus, but simultaneously they tend to be detrimental to the airlines" profitability. Therefore airline organisation economics should emphasize that avoiding price wars is an important strategic concern for the airlines.
- One would like to conclude that airline business is a big gamble which involves a lot of¬ guesswork, with a few certainties and many possibilities. The best the airlines can do is making some assumptions based on what is already going on. Executives in poorly performing airlines are quick to blame external factors for their plight. It is everyone's fault but their own. They are victims to forces or events around them so they say. I believe this is absolute nonsense and the fact still remains that they have a huge amount of influence over their own fortunes.
- The other major pattern in my observation of the results is that, while an airline must live¬ with many of the factors determining the intensity of the airline industry rivalry that are built into industry economics as reflected in this research, it has latitude to influence rivalry through its choice of strategy.
- Prices and margins in the airline industry are being driven down to unattractive levels because too many competitors are chasing the same flighty customers. This can be overcome by getting the basics right, creating an appropriate value proposition and executing effectively. However if ones value proposition is just like everyone else" s, there is no reason for customers to buy from you. In this cluttered, fast moving airline world, change and innovation are on everyone" s lips. Airlines go to great length to promote their services and products, but unfortunately majority cannot deliver what they promise and so they destroy their credibility. The customers" views may be precise and intense when they shop around. However those views are made up of people, machines, ideas, technologies, systems and philosophies.My advice to airlines is to find a bright idea that is new, exciting to the consumer, and moves the market. They should build their own brand identity to make sure the brand is at the centre of everything they do, and every service they provide. It is however difficult for the airlines to

build brand loyalty due to travel being a commodity type product with limited potential for differentiation. Mismanagement and time has also killed brands in airlines. When it comes to experience, airlines already know where the improvements should or could be made.

- Strategic alliances are also an effective way to diffuse the intensity of competition in the airline industry. Alliances have in most cases proven to be a positive sum arrangement and one foresees that it will be a matter of time before the emergence of competing global alliance networks.
- The problem as I see it does not necessary lie with strategy, but with execution of strategy. Effective strategy is not separable from execution and is not based on visions and dreams, but on match between capabilities and activities. While all the five competitive forces do jointly determine the intensity of airline industry competition and profitability, ultimately the strongest force, which is very crucial, lies in the formulation and implementation of strategies. Some airlines have been damaged by unrealistic ambitions: the degree to which the strategy was inappropriate for the distinctive capabilities of the organization.

6.2 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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Appendix

Abbreviations

HHI- Herfindahl Hirschman Index

LCC- Low Cost Carriers

PPP- Public Private Partnership

DGCA- Directorate General of Civil Aviation

IAC- Indigenous aircraft carrier

DIPP- Department of Industrial Policy and Promotion

FDI- Foreign direct investment

HSIIDC- Haryana State Industrial and Infrastructure Development Corporation

ASAs- Air service agreements

ATF- Aviation Turbine Fuel

MRO- Maintenance Repair and Overhaul

EASF- Essential Air Services Fund

RACF- Regional Air Connectivity Fund

FSCs-Full Service Carrier