APPENDIX – I

UPES Centre for Continuing Education

PROJECT REPORT ON AVIATION INDUSTRY ANALYSIS

By

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Guided By

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A DISSERTATION REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR

MBA AVIATION MANAGEMENT

OF

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UNIVERSITY OF PETROLEUM & ENERGY STUDIES, DEHRADUN

UPES
Centre for Continuing Education

APPENDIX– II

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Garuda Indonesia
The Airline of Indonesia

APPENDIX – III

A Declaration by the Guide

Declaration by the Guide

This is to certify that the Mr. **Divesh Pokhriyal**, a student of (Program), SAP ID **500069867** of UPES has successfully completed this dissertation report on " **AVIATION INDUSTRY ANALYSIS** " under my supervision.

Further, I certify that the work is based on the investigation made, data collected and analyzed by him and it has not been submitted in any other University or Institution for award of any degree. In my opinion it is fully adequate, in scope and utility, as a dissertation towards partial fulfillment for the award of degree of MBA/BBA/B.Sc.

Signature

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APPENDIX – IV

Table of Contents

The Indian Aviation Industry

Introduction

Air India was set up by J.R.D. Tata, who ran it successfully until it was nationalized in 1953. In the 1960s the —Maharaja‖, as the national flag-carrier was affectionately known, was flying to 32 destinations (it now flies to 46 destinations) and making profits. For many years in India air travel was perceived to be an elitist activity. This view arose from the —Maharajah‖ syndrome where, due to the prohibitive cost of air travel, the only people who could afford it were the rich and powerful. In recent years, however, this image of Civil Aviation has undergone a change and aviation is now viewed in a different light - as an essential link not only for international travel and trade but also for providing connectivity to different parts of the country. Aviation is, by its very nature, a critical part of the infrastructure of the country and has important ramifications for the development of tourism and trade, the opening up of inaccessible areas of the country and for providing stimulus to business activity and economic growth. Until less than a decade ago, all aspects of aviation were firmly controlled by the Government.

In the early fifties, all airlines operating in the country were merged into either Indian Airlines or Air India and, by virtue of the Air Corporations Act, 1953 this monopoly was perpetuated for the next forty years. The Directorate General of Civil Aviation controlled every aspect of flying including granting flying licenses, pilots, certifying aircrafts for flight and issuing all rules and procedures governing Indian airports and airspace. Finally, the Airports Authority of India was entrusted with the responsibility of managing all national and international airports and administering every aspect of air transport operation through the Air traffic Control.

With the opening up of the Indian economy in the early Nineties, aviation saw some important changes. Most importantly, the Air Corporation Act was repealed to end the monopoly of the public sector and private airlines were reintroduced. Domestic liberalization took off in 1986, with the launch of scheduled services by new start-up carriers from 1992. A number of foreign investors took an interest. Modiluft closed after failing to meet financial obligations to lassoers and its technical partner, Lufthansa. In 1996-1998, Tata and SIA tried to launch a domestic carrier, but the civil aviation minister had publicly stated his opposition on numerous occasions (Airline Business 1998). The Indian government introduced the open sky policy for domestic players in 1991 and partial open sky policy for international players only in November 2004. Increasing liberalization and deregulation has led to an increase in the number of players.

The industry comprises three types of players full cost carriers, low cost carriers (LCC) and many start-up airlines that are making/planning an entry.

Present Indian Scenario

It is a phase of rapid growth in the industry due to huge build-up of capacity in the LCC space, with capacity growing at approximately 45% annually. This has induced a phase of intense price competition with the incumbent full service carriers (Jet, Indian, Air Sahara) disk-counting up to 60-70% for certain routes to match the new entrants ticket prices. This, coupled with costs pressures (a key cost element, ATF price, went up approximately 35% in recent months, while staff costs are also rising on the back of shortage of trained personnel), is exerting bottom-line pressure.

The growth in supply is overshadowed by the extremely strong demand growth, led primarily by the conversion of train/bus passengers to air travel, as well as by the fact that low fares have allowed passengers to fly more frequently. There has, therefore, been an increase in both the width and depth of consumption. However, the regulatory environment, infrastructure and tax policy have not kept pace with the industry's growth.

Enactment of the open sky policy between India and SAARC countries, increase in bilateral entitlements with the EU and the US, and aggressive promotion of India as an attractive tourism spot helped India attract 3.2 million tourists in 2004-05. This market is growing at 15% per annum and India is expected to attract 6 million tourists by 2010. Also, increasing per capita income has led to an increase in disposable incomes, leading to greater spend on leisure and holidays and business travel has risen sharply with increasing MNC presence. Smaller cities are also well connected now. Passenger traffic has increased and over 21 million seats have been sold, resulting in a growth of over 50%. The Indian travel market is expected to triple to $51 billion by 2011 from $16.3 billion in 2005-06.

Key Players in Indian Industry

Airlines on International & Domestic routes

Air India is the national flag carrier airline of India with a network of passenger and cargo services worldwide. It is one of the two state-owned airlines in the country, the other being Indian Airlines. Air India has 44 world-wide destinations. The airline has been profitable in most years since its inception. In the financial year ending March 31, 2006, Air India has made a net profit of Rs.97 million; earned revenue of Rs.87480 million - representing a growth of almost 15 per cent over the previous year.

Jet airways (Shut down) airline which offers normal economy and business class seats. Jet Airways, along with Air Sahara, is the only airline which survived the dismal period of 1990s when many private airlines in India were forced to close down. Jet Airways is an airline based in India serving domestic and international routes. The airline operates over 300 flights to 43 destinations across the. It currently controls about 32% of India's aviation market.

Spice Jet is a low-cost airline. Their marketing theme offering low everyday spicy fares and great guest services to price conscious travelers". Their aim is to compete with the Indian Railways passengers travelling in AC coaches.

Go Air The People's Airline, a low cost carrier promoted by The Wadia Group is a domestic budget airline based in Mumbai, India established in June 2004. It's a relatively small player as compared to other low cost airlines.

Kingfisher Airlines (Shut down) is an airline based in Bangalore, India. Services started on 9 May 2005, following the lease of 4 Airbus A320 aircraft. It initially operates only on domestic routes. The airline promises to suit the needs of air travellers and to provide reasonable air fares.Kingfisher are pushing for an amendment of the present Indian government rule which requires an airline to fly a minimum of five years on domestic routes before it can start flying overseas.

Indi Go Airlines is a new and a private domestic airline based in India. IndiGo placed an order for 100 Airbus A320 aircraft during the 2005 Paris Air Show. The total order was worth US $6 billion; one of the highest by any domestic carrier during the show. The new low-fare carrier has started operations from August 4, 2006.

Waiting for Entry: - Among the new low-cost carriers waiting to take wing in 2006 are Omega air, Magic Air, East West, Indus, Premier Star Air and MDLR Airlines

GLOBAL SCENARIO

At the macro-economic level Asia Pacific growth is impressive. India and China are growing between 8 and 10% each year. China is now the world's 4th largest economy. Excluding Japan, Asian economic growth was 7%—doubles the world average of 3.5%. Global airline traffic is expected to rise steadily until 2008 in line with an anticipated good performance by the world economy, according to the United Nations'(UN) aviation agency. The UN International Civil Aviation Organization found in its medium-term forecast that airline traffic would grow 6.1 per cent in 2006, 5.8 per cent in 2007, and 5.6 per cent in 2008. And strong economic growth will continue. But growth means nothing if the bottom line is red. Globally airlines lost US$6 billion in 2005. US carriers lost US$10 billion. European carriers made about US$1.3 billion. Asian carriers led profitability with US$1.5 billion. Even within Asia it is a mixed picture. Some carriers are among the most profitable. Others however are struggling. In the region operating margins averaged less than 2%, still the best performance in the world. Most are below the 7 to 8% needed to cover the cost of capital and give investors an acceptable return.

Impact of Rising Fuel Prices on the Industry

The high price of fuel is killing the profitability. In two years the industry fuel bill more than doubled to nearly US$100 billion—23% of operating costs. And there is no relief in sight. So what are airlines to do? Improve efficiency is the answer. Progress to date has been dramatic. The break-even price of fuel rose from US$22 per barrel in 2003 to nearly US$50 in 2005. Unfortunately, fuel prices are above that. Airlines will not return to profitability until 2007 when we expect a break-even fuel price of US$55. Even then the projected profit is only US$6 billion. Asia will remain profitable in 2006 posting US$2 billion in profit. But do not start opening the Champagne. That is still less than a 2% net margin.

Global Impact of LCCs

Low cost carrier competition is new to this region. Asian network carriers are better prepared than many of their US or European counterparts. Their operating costs are 6 US cents per ATK on route lengths of 1500km. But the competition will also be tough. Air Asia's costs are the lowest in the world—2.5 US cents per ATK. Labor costs in Asia are the lowest in world—19% of operating cost. This is a significant advantage against US and European carriers with an average cost of above 30%. If we compare Asian network carriers to their low cost rivals, the story changes. Average labor costs

can be up to 7 times lower at low-cost startups. There is no finish line in the race to reduce costs and improve efficiency. Some analysts are of the view that Countries in the Asia-Pacific region, which entered the industry much later, have emerged as important players in the past decade. In comparison, the Indian civil aviation industry which is much older still operates from a small base even though its domestic market potential and skilled man power should have given it intrinsic advantages to emerge as a globally important player in the civil aviation industry by now.

Path Forward for India

The escalating fuel bill would eventually translate into costlier air tickets for the Indian travelers, who have for the first time sampled air travel at fares that match first-class railway tickets.
Even as some airlines hiked fares by ten per cent and others toyed with the idea to offset their ballooning fuel bill, the government dealt them another blow by withdrawing the withholding tax exemption on aircraft lease agreements. In the absence of this tax exemption, aircraft leasing cost is expected to shoot up between 20 to 67 per cent - a move that could deter new entrants and existing players from leasing more aircraft.
Although poor airport infrastructure remains a concern, we need to maintain a positive outlook on the sector as the government allows private participation and FDIs in construction and maintenance of air-traffic infrastructure. This also hints at the huge opportunity in terms of infrastructure development and maintenance in the aviation sector for foreign construction and engineering companies. For now, as more and more Indians take to the skies, the country is set to emerge as the fastest growing aviation market.

Executive Summary

India is one of the fastest growing aviation markets in the world. The Airport Authority of India (AAI) manages a total of 127 airports in the country, which include 13 international airports, 7 custom airports, 80 domestic airports and 28 civil enclaves. There are over 450 airports and 1091 registered aircrafts in the country. The genesis of civil aviation in India goes back to December 1912 when the first domestic air route between Karachi and Delhi became operational. In the early fifties, all airlines operating in the country were merged into either Indian Airlines or Air India. and, by virtue of the Air Corporations Act 1953, this monopoly continued for the next forty years. The Directorate General of Civil Aviation(DGCA) controlled every aspect of aviation, including granting flying licenses, pilots, certifying aircrafts for flight and issuing all rules and procedures governing Indian airports and airspace. Finally, the Airports Authority of India (AAI) was assigned the

responsibility of managing all national and international airports and administering every aspect of air transport operation through the Air traffic Control.

In 1990s, aviation industry in India saw some important changes. The Air Corporations Act was abolished to end the monopoly of the public sector and private airlines were reintroduced. With the liberalization of the Indian aviation sector, the industry has witnessed a transformation with the entry of the privately owned full service airlines and low cost carriers. In 2006, the private carriers accounted for around 75% share of the domestic aviation market. The sector has also seen a significant increase in the number of domestic air travel passengers. Some of the factors that have resulted in higher demand for air transport in India include the growing middle class and their purchasing Power, low airfares offered by low cost carriers like Air Deccan, the growth of the tourism industry in India, increasing outbound travel from India, etc. Increasing liberalization and deregulation has led to an increase in the number of private player. However, Airlines today face issues from multiple quarters. While on one hand the economy faces the brunt of recession, on the other hand most airlines In India find themselves in the red. What was once hailed as one of the fastest Growing sector in the economy, now is struggling to keep itself afloat. While it is still premature to declare that the industry is seeing a downtrend, many domestic players are seeing a bleak future. In our analysis we look at factors that influence the industry and key indicators.

JET AIRWAYS (SHUT DOWN)

Jet Airways (India) Ltd. is a bankrupt and grounded Indian international airline based in Mumbai, India which, on 17 April 2019, ceased all flight operations, with its last revenue flight operated by a Jet Konnect Boeing 737, arriving into Mumbai on 17 April 2019. From the third quarter of 2010 onwards, Jet Airways was the largest commercial passenger airline in India with a passenger market share of 22.6%.[13] With its competitors, mainly SpiceJet and IndiGo, lowering ticket fares in the following years, it was forced to follow suit, hurting overall performance resulting in steep financial losses. It dropped to second place behind IndiGo in October 2017, with a passenger market share of 17.8%. The downward slide continued unabated and, as of July 2019, the company is undergoing insolvency proceedings under Insolvency and Bankruptcy Code, 2016.

KINGFISHER AIRLINE (SHUT DOWN)

Kingfisher Airline is a private airline based in Bangalore, India. The airline is owned by Vijay Mallya of United Beverages Group. Kingfisher Airlines started its operations on May 9, 2005 with a fleet of 4 Airbus A320 aircrafts. The airline currently operates on domestic routes. The destinations covered by Kingfisher Airlines are Bangalore, Mumbai, Delhi, Goa, Chennai, Hyderabad, Ahmadabad, Cochin, Guwahati, Kolkata, Pune, agartala, Dibrugarh, Mangalore and Jaipur. In a short span of time Kingfisher Airline has carved a niche for itself. The airline offers several unique services to its customers. These include: Personal valet at the airport to assist in baggage handling and boarding, exclusive lounges with private space, accompanied with refreshments and music at the airport, audio and video on-demand, with extra-wide personalized screens in the aircraft, sleeperette seats with extendable footrests, and three courses Gourmet cuisine. Kingfisher Airlines Limited was an airline group based in India.

Through its parent company United Breweries Group, it had a 50% stake in low-cost carrier Kingfisher Red. Until December 2011, Kingfisher Airlines had the second largest share in India's domestic air travel market. However, the airline ran into continuous losses since its inception, ran high debts and finally closed its operations in 2012. Its chairman Vijay Mallya subsequently fled to London to hide from creditors.

GO AIR AIRLINES

GoAir is an Indian low-cost airline based in Mumbai, India. It is owned by the Indian business conglomerate Wadia Group. In October 2017 it was the fifth largest airline in India with an 8.4% passenger market share. It commenced operations in November 2005 and operates a fleet of Airbus A320 aircraft in all economy configuration. As of October 2019, the airline operates over 325 daily flights to 35 destinations, including 27 domestic and 8 international destinations, from its hubs at Mumbai, Delhi, Bangalore, Kolkata and Kannur.

Go Air Airlines Director, is looking at 'commoditizing air travel by Offering airline seats at marginally higher train prices to all cities in India. The airlines theme line is —Experience the

Difference‖ and its objective is to offer its passengers a quality consistent, quality assured and time efficient product through affordable fares. Go Air's business model has been created on the' punctuality, affordability and convenience' model. Go Air's route network spans prominent business and leisure destinations, across India. Currently it covers 13 destinations. These are Ahmadabad, Bangalore, Chennai, Cochin, Coimbatore, Delhi, Goa, Hyderabad, Jaipur.In, Jammu, Mumbai, Pune, and Srinagar. Go Air operates with state-of-art Airbus A320 aircraft fleet.

INDIAN AIRLINE

Indian Airlines, later Indian, was a major Indian airline based in Delhi and focused primarily on domestic routes, along with several international services to neighboring countries in Asia. It was state-owned after merger of eight pre-Independence domestic airlines and was administered by the Ministry of Civil Aviation. Indian was one of the two flag carriers of India, the other being Air India.

On 7 December 2005, the airline was rebranded as Indian for advertising purposes as a part of a program to revamp its image in preparation for an initial public offering (IPO). The airline operated closely with Air India, India's national overseas carrier. Alliance Air was a fully owned subsidiary of Indian.

In 2007, the Government of India announced that Indian would be merged into Air India. As part of the merger process, a new company called the National Aviation Company of India Limited (now called Air India Limited) was established, into which both Air India (along with Air India Express) and Indian (along with Alliance Air) would be merged. Once the merger was completed, the airline – called Air India – would continue to be headquartered in Mumbai and would have a fleet of over 130 aircraft.

On 26 February 2011, Indian airlines ceased operating under its own brand and codes and completed its merger with Air India.

SPICEJET AIRLINES

SpiceJet Limited is an Indian low-cost airline headquartered in Gurgaon, India. It is the second largest airline in the country by number of domestic passengers carried, with a market share of 13.6% as of March 2019. The airline operates 630 daily flights to 64 destinations, including 54 Indian and 10 international destinations from its hubs at Delhi, Kolkata, Mumbai and Hyderabad.

Established as air taxi provider ModiLuft in 1994, the company was acquired by Indian entrepreneur Ajay Singh in 2004 and re-christened as SpiceJet. The airline operated its first flight in May 2005. Indian media baron Kalanidhi Maran acquired a controlling stake in SpiceJet in June 2010 through Sun Group which was sold back to Ajay Singh in January 2015. The airline operates a fleet of Boeing 737 and Bombardier Dash 8 aircraft.

As of January 2020, SpiceJet operates 630 flights daily to 54 Indian and 10 international destinations. It operates hubs at Delhi and Hyderabad, which is the primary base for its fleet of Bombardier Q400 aircraft. After completing five years of flying, SpiceJet was allowed to commence international flights by Directorate General of Civil Aviation on 7 September 2010. SpiceJet launched flights from Delhi to Kathmandu and Chennai to Colombo and the first international flight took off on 7 October 2010 from Delhi.

SpiceXpress is the air cargo division of SpiceJet. The cargo airline was launched in September 2018 and commenced services on the Delhi-Bengaluru-Delhi route with a Boeing 737-700.

SpiceXpress began services between Guwahati and Hong Kong on 19 January 2019 becoming the first airline to operate freight services between Northeast India and Southeast Asia.SpiceXpress took delivery of its first 737-800 Boeing Converted Freighter (BCF) in September 2019, becoming the first South Asian carrier to induct the converted freighter into its fleet.

OVERVIEW

With a growth rate of 18 per cent per annum, the Indian aviation industry is one of the fastest growing aviation industries in the world. The government's open sky policy has lead to many overseas players entering the market and the industry has been growing both in terms of players and number of aircrafts. With the liberalization of the Indian aviation sector, the aviation industry in India has under gone a rapid transformation. From being primarily a government-owned industry, the Indian aviation industry is now dominated by privately owned full-service airlines and low-cost carriers. Private airlines account for around 75 per cent share of the domestic aviation market. Indian carriers currently have a fleet size of 310 aircrafts, but have 480 aircrafts on order, scheduled for delivery by 2012. Earlier, air travel was a privilege only a few could afford, but today air travel has become much cheaper and can be afforded by a large number of people. Furthermore, the price of aviation turbine fuel (ATF) crashed drastically in December 2008, hitting US$ 0.665- US$ 0.789, which is its lowest level since the last four to five years. With this move, airlines are likely to prune their airfares considerably. Jet Airways, the country's largest private carrier, has slashed domestic fares by 40 per cent and national carrier Air India has announced that it will cut basic fares anywhere between 45 per cent and 60 per cent in February 2009 following a drop in ATF prices. India has jumped to 9th position in world's aviation market from 12th in 2006. The scheduled domestic air services are now available from 82 airports as against 75 in 2006. Challenges that faced airlines and the aviation industry as a whole over the last few years, has forced the industry to rethink how they do business on both a financial and operational level. Most airlines have faced up to these challenges, and as a result have been remarkably successful at turning around ailing companies, in many cases completely reinventing themselves.

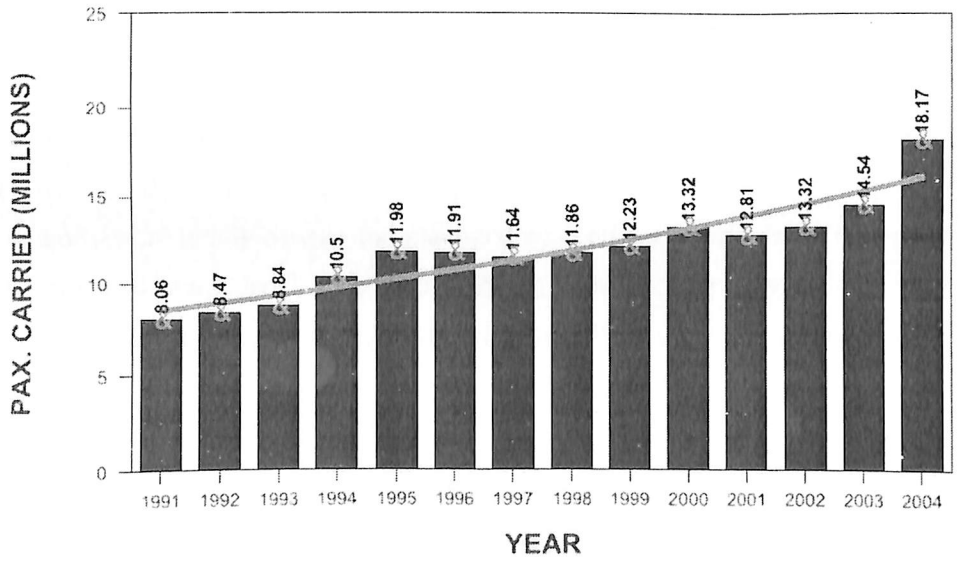
Although high fuel prices are affecting profitability, airlines are now in a much stronger position then 2000, due to unprecedented demand for air travel. The notion of restructuring and cost cutting has been embraced wholeheartedly by European and Asian airlines as the only viable way to secure their long-term security. North American airlines have been slower to face up these challenges, and face major cost cutting exercises in order to reach necessary levels of efficiency. There is no doubt that the aviation industry has come through one of the toughest periods in over 30 years. The industry is now in an excellent position to face the challenges ahead The Aviation industry in India encompasses a wide range of services related to air transport such as passenger and cargo airlines, unscheduled service operators --- private jets and helicopters, airport management, and support services like Maintenance, Repairs and Overhaul (MRO), ground handling, in-flight catering, and training. The Aviation sector has reaped massive benefit from the entry of private carriers, especially from those of the low fare ones. The growth of the airlines sector has caused a sharp upturn in demand for allied services including MRO, ground handling, and catering services. The booming

aviation industry, along with its tertiary services, has wreaked a major talent crunch, boosting opportunities for training service providers. The ever-expanding Indian economy and increased demand for trade has pushed the need for air cargo services to a new high. Increasing number of entrants in the sector has forced airports to expand their cargo handling capacities.

The aviation sector is still a small part of the travel and transportation services sector in India. 2006-07 posted annual passenger traffic of about 96 million, as compared to nearly 6 billion passengers carried by the railways. The industry has already bumped into several challenges; inadequate infrastructure being the most crucial.

The airlines suffered losses of around USD 500 million in 2006-07 and the situation is expected to deteriorate in 2007-08. The high cost of operations, intense competition, and unsustainably low fares have contributed to these losses. While initiatives have been taken to remove bottlenecks to growth, a need for further investments in capacity is felt more than ever. A recent spate of mergers, however, has come to some relief. The decelerating profit margin does not entail a slump in revenue generation. It is the increasing costs that have thrown the aviation industry into the present plight. India's aviation sector stands up to the crisis and races against its fastest growing global competitors. Improved affordability and connectivity add to the expected improvement in both passengers and cargo traffic. Large public and private investments in air travel infrastructure, supported by government initiatives, are expected to pour in.

GROWTH OF DOMESTIC PASSENGER TRAFFIC



Potential for Growth

According to recent estimates by The International Air Transport Association (IATA), India is likely to be a significant player in the global civil aviation business, which was estimated at US$ 5.6 billion in 2008. The Indian Civil Aviation market grew at a compound annual growth rate (CAGR) of 18 per cent, and was worth US$ 5.6 billion in 2008 The government is planning to upgrade 45 big and small airports across India. For green field airports, foreign equity up to 100 per cent is allowed through automatic approvals. For upgrading present airports, foreign equity up to 74 per cent is allowed through automatic approvals and 100 per cent through special permission (from FIPB). The Centre for Asia Pacific Aviation (CAPA) has forecast that domestic traffic will increase by 25 per cent to 30 per cent till 2010 and international traffic growth by 15 per cent, taking the total market to more than 100 million passengers by 2010.

India's civil aviation passenger growth, presently at 20 per cent, is one of the highest in the world, and is expected to surpass countries like China, France and Australia. By 2020, 400 million Indian passengers are likely to be airborne. By 2020, Indian airports are expected to handle more than 100 million passengers' including 60 million domestic passengers and around 3.4 million tonnes of cargo per annum. Domestic air traffic is likely to more than double and touch 86.1 million passengers by 2010, up from 32.2 million passengers in 2007, states the market research firm PhoCus. Moreover, significant measures to propel growth in the civil aviation sector are on the anvil. The government plans to invest US$ 9 billion to modernize existing airports by 2010. The government is also planning to develop around 300 unused airstrips, and subsequently, Boeing and Airbus, along with Embraer (Brazil), Bombardier (Canada), Sukhoi (Russia), ATR (France) and BAE System (UK) are now looking at foraying into the Indian jet market.

Airport infrastructure

In India, airports were totally owned and managed by central government or the armed forces. The Airport Authority of India (AAI), a body functioning under the Ministry of Civil Aviation was responsible for managing the airports in India. It owns **122** airports, **61** of which are operational. The breakdown is as follows: **11**- International, **94**- Civil, **27**- Civil enclaves at defense airfields.

The AAI operate most aspects of the airport (including air traffic control) and procure most of their equipment directly (via global/local tenders). India's airports handle 42 million passengers, of which the four Metro gateway airports (Delhi, Mumbai, Kolkata and Chennai) account for 47% of revenue and 66% of the passengers.

Industry Analytics: Aviation Industry Report

Until 2000, there were five major international airports, - Mumbai, Kolkata, Delhi, Chennai and Trivandrum. But the GoI announced a further six airports including Amritsar, Bangalore,Hyderabad, Cochin during the course of 2002. According to projections, Indian air passenger traffic was estimated to grow to 100 million passengers by 2012 from 36.98 million in 1998-99. Growth projections in the cargo front were also promising. Airport infrastructure is linked to development of India's international competitiveness and her ability to attract foreign investments. The policy opened the doors of private investment in this sector, including investments from foreign airport authorities.

HISTORY

The history of civil aviation in India started with its first commercial flight on February 18, 1911. It was a journey from Allahabad to Naini made by a French pilot Monseigneur Piguet covering a distance of about 10 km. Since then efforts were on to improve the health of India's Civil Aviation Industry. The first domestic air route between Karachi and Delhi was opened in December 1912 by the Indian State Air Services in collaboration with the Imperial Airways, UK as an extension of London-Karachi flight of the Imperial Airways. The aviation industry in India gathered momentum after three years with the opening of a regular airmail service between Karachi and Madras by the first Indian airline, Tata Sons Ltd. However this service failed to receive any backing from the Indian Government. At the time of independence nine Air Transport Companies were operational in the Indian Territory. Later the number reduced to eight when the Orient Airways shifted its base to Pakistan. The then operational airlines were Tata Airlines, Indian National Airways, Air service of India, Deccan Airways, Ambica Airways, Bharat Airways and Mistry Airways.

With an attempt to farther strengthen the base of the aviation sector in India, the Government of India together with Air India (earlier Tata Airline) set up a joint sector company, Air India International, in early 1948. With an initial investment of Rs. 2 crore and a fleet of three Lockheed constellation aircrafts, Air India started its journey in the Indian aviation sector on June 8, 1948 in Mumbai (Bombay)-London air route. For many years since its inception the Indian Aviation Industry was plagued by inappropriate regulatory and operational procedures resulting in either excessive or no competition. Nationalization of Indian Airlines (IA) in 1953 brought the domestic civil aviation sector under the purview of Indian Government. Government's intervention in this sector was meant for removing the operational limitations arising out of excess competition. Air transportation in India now comes under the direct control of the Department of Civil Aviation, a part of the Ministry of Civil Aviation and Tourism of Government of India. Aviation by its very

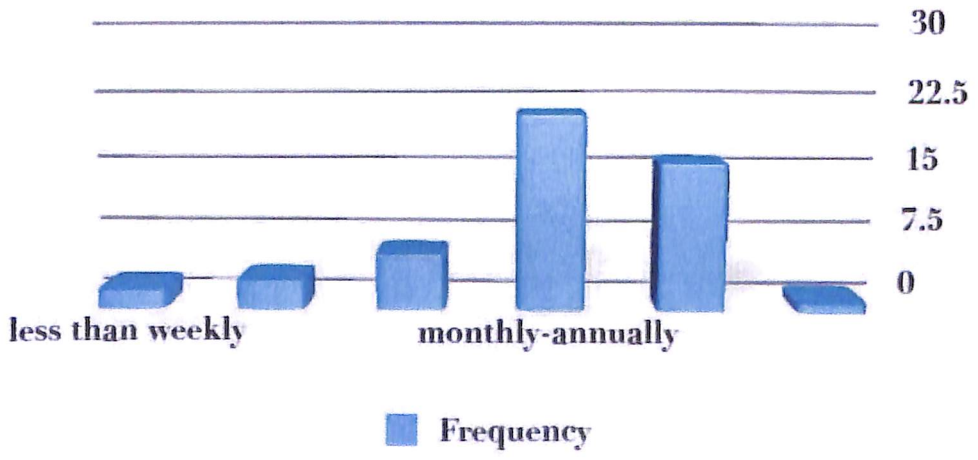
nature constitutes the elitist part of our country's infrastructure. This sector has substantial contribution towards the development of country's trade and tourism, providing easier access to the areas full of natural beauty. It therefore acts as a stimulus for country's growth and economic prosperity.

Consumer Perception

We conducted a survey in order to find the consumer perception about airlines. The following results have been culled out from the survey of 116 individuals. The sampling method was a mix of purposive and stratified random sampling and attempted to duplicate the general consumer profiles of the population (as based on preliminary secondary data). The age group of the sample was between 18 and 58, across gender, location, and socio-economic class (mapped on education and occupation, with a majority of the sample in SEC A and b+

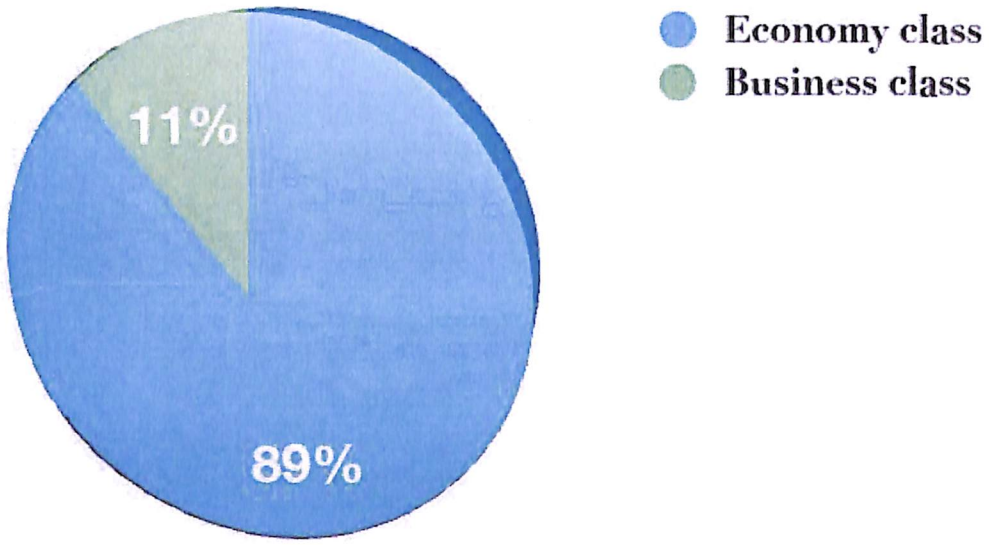
Frequency of Usage

As indicated in the graph below, a majority the population flies relatively infrequently (as compared to the developed markets). Passengers traveling on business were found to be more frequent users, while those flying on holidays and emergencies were those that tended to make up the segment that flew less than once a year. Note – As purposive sampling was undertaken at Lucknow Airport, the sample population of never is not representative of the population, even in the given SECs).



Flight Class and Occasion of use

Although the occasion of use indicates that maximum usage is for business, the flight class graph indicates that the proportion travelled by business class is very small in comparison to that travelled by economy class. This indicates that most business travelers are flying Economy class as well. Further, the second important occasion of usage is for emergencies and time critical travels.



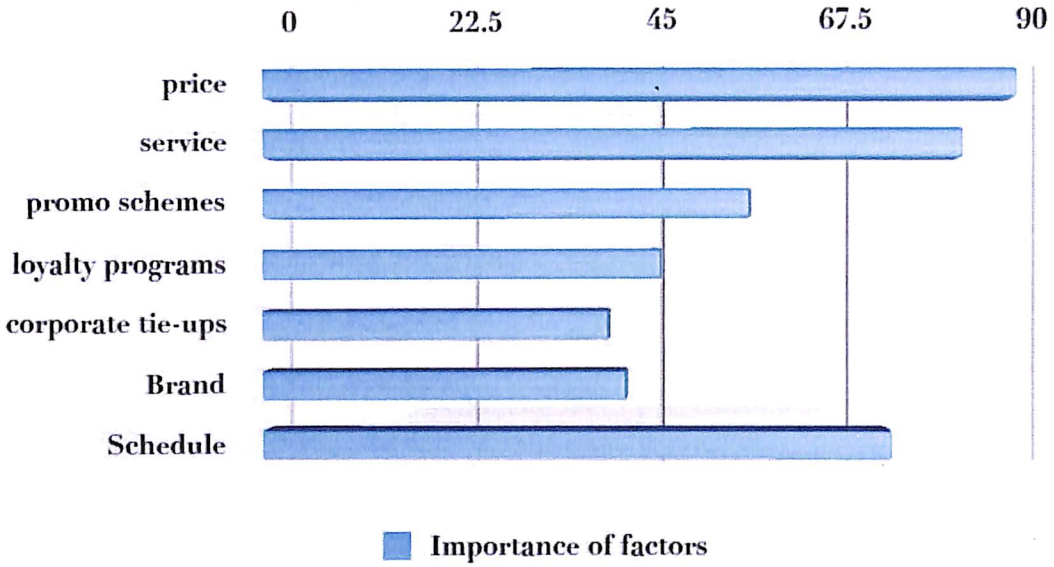
Circuits Flown

The most frequently flown circuit is that between major metros, followed by other state capitals and Delhi-Mumbai. Delhi and Mumbai airports accounts for roughly half of passengers flown, and metro airports account for 66% of the passengers flown (and 47of revenues, as per secondary data)

Scheme Preference

With the entry of new players in the market, airlines are competing for passengers on non-price parameters. This increases the product differentiation in order to decrease elasticity of demand in the market. Given the key differentiators that substitute for price, consumers have rated Apex fares as their most preferred scheme. Indian Airlines, Jet and
Air Sahara offer apex fares. Next most preferred to Apex fares is the frequent flyer program, a trend noticed predictably in the high frequency repeat users and those traveling on business.

Consumer Choice Parameters



Price appears to be most important factor for the consumer followed by service provided and flight schedules. Indian Airlines has been rated high on most parameters while Jet Airways, although rated low on price, is rated highest in most other factors. Air Deccan, which has been ranked best on prices, has succeeded in its mission to provide reliable low-cost air-travel to common man by constantly driving down air-fares. Air Sahara's many services such as In-flight entertainment and Wings n' Wheels coach service, exclusive business lounges being operated at departure halls at airports in a number of cities, providing for business and refreshment services has made it second most popular under services. It has taken the lead in introducing novel initiatives such as Steal-a-seat flexi fare options, Sixes/ Super Sixes and Square Drive/Super Four. Air Sahara's frequent flyer program called Cosmos has also become a great hit with the passengers, though it still ranks almost on par or lower on customer perception than the schemes offered by Jet and IA (see promo schemes and loyalty programs), essentially due to lower customer awareness levels. Corporate tie-ups were a trend significant by their absence on the brand preference parameters. While the only major tie-ups were by Indian Airlines with government agencies, these were not perceived as strictly _corporate' tie ups. This segment is hence a possible opportunity which can be explored as anon-price differentiator, given the large frequency of use by business travelers.

AIRLINES DOMINATING THE INDIAN SKIES AND THE CONSUMER MINDS

Indian Airlines was founded in 1953. Today, together with its fully owned subsidiary Alliance Air, it is one of the largest regional airline systems in Asia with a fleet of 62 aircraft (4 wide bodied Airbus A300s, 41 fly-by-wire Airbus A320s, 11 Boeing 737s, 2 Dornier D-228 aircraft and 4 ATR-42) Indian Airlines is presently fully owned by the Government of India and has total staff strength of around 18562 employees. Its annual turnover, together with that of its subsidiary Alliance Air, is well over Rs. 4000 corers (around US$1 billion). Indian Airlines flight operations centre around its four main hubs the main metro cities of Delhi, Mumbai, Calcutta and Chennai. Together with its Subsidiary Alliance Air, Indian Airlines carries a total of over 7.5 million Passengers annually .Jet Airways has emerged as India's largest private domestic airline and has been acclaimed by frequent travelers as the most preferred carrier offer night highest quality of comfort, courtesy and standards of in flight and ground service and reliability of operations. It currently has a market share of 46.7% percent and operates a fleet of Boeing and ATR72-500 turbo-prop aircraft. Jet Airways has been voted India's 'Best Domestic Airline' consecutively and won several national and international awards, including the 'Market Development Award' for 2001 awarded by Air Transport World .It is a low cost airlines based in Delhi. It began service in May 2005 and by 2008, it was India's second-largest low-cost airline in terms of market share. Spice Jet was voted as the best low-cost airline in south Asia and central Asia region by Skirted in 2007. Rising fuel costs and increasing competition resulted in Spice Jet posting a loss in the first quarter of 2008-09. In August 2008,Spice Jet announced plans to raise US $100 million through foreign investment. Spice Jet was earlier known as Royal Airways, a reincarnation of Modiluft. Kingfisher is one of six airlines in the world to have a five-star rating from Skytrax, along with Asian airlines, Malaysia airlines Qatar airways, Singapore airlines and Cathay pacific airlines. According to a survey held in September 2008, Kingfisher was the most admired airline brand in the Asia pacific region.. In February 2009, Kingfisher Airlines had 904,000 passengers, giving it the highest market share in India.

Other major Airlines across the Globe

BRITISH AIRWAYS

Year End	Passengers	Turnover	PBT	P L	EPS
March 2008	33161000	8753	883	696	59.0
March 2007	33068000	8492	611	438	25.3
March 2006	32432000	8213	616	464	40.4
March 2005	29634000	8515	620	467	40.4
March 2004	33717000	7772	513	392	35.2

British Airways PLC (LSE: BAY) is an airline of the United Kingdom. The airline has the largest fleet of aircraft of any British airline, but is only second in terms of international passengers carried. Its main hubs are London Heathrow and London Gatwick. The British Airways Group was formed on 1 September 1974 consisting of BOAC and BEA. These two companies were dissolved on 31 March 1974 to form British Airways (BA). The company was privatized in February 1987. It expanded with the acquisition of British Caledonian in 1988 and some of the Routes of Gatwick-based carrier Dan-Air in 1992. The formation of Richard Branson's Virgin Atlantic in 1984 began a tense relationship with BA which ended in "one of the most bitter and protracted libel actions in aviation history".

In 1993 in which BA apologized "unreservedly" for a "dirty tricks" campaign against Virgin and paid damages and legal costs .British Airways is listed on the London Stock Exchange and is a constituent of the FTSE 100 Index. Until 2008 British Airways was the largest airline of the United Kingdom, measured by passenger numbers.

British Airways Financial Performance

YEAR	END	PASSENGER	TURNOVER	PBT P/l	EPS
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SINGAPORE AIRLINES

National airline of Singapore. Singapore Airlines operates a hub at Singapore Changi Airport and has a strong presence in the Southeast Asia, East Asia, South Asia, and "Kangaroo Route" markets. The company also operates trans-Pacific flights, including two of the world's longest non-stop commercial flights from Singapore to Newark, New Jersey and Los Angeles, California on the A340-500. Singapore Airlines was the launch customer of the "super-jumbo" Airbus A380. SIA has diversified into airline-related businesses such as aircraft handling and engineering. Its wholly-owned subsidiary, Silk Air, manage regional flights to secondary cities with smaller capacity requirements

.Subsidiary Singapore Airlines Cargo operates SIA's dedicated freighter fleet, and manages the cargo-hold capacity in SIA's passenger aircraft. SIA has a 49%shareholding in Virgin Atlantic and has also responded to the threats posed by the low-cost sector by investing a 49% stake in Tiger Airways. Singapore Airlines Limited is the world's largest carrier by market capitalization. It ranks amongst the top 15 carriers worldwide in terms of revenue passenger kilometers, is the 8th largest airline in Asia and ranked 6th in the world for international passengers carried. Singapore Airlines was ranked 17th in Fortune's World's Most Admired Companies rankings in 2007 and has strong brand name as a trendsetter in the aviation industry, Particularly in terms of innovation, safety and service excellence, coupled with consistent profitability. It has won numerous awards and is an industry bellwether for aircraft purchases. The airline was Asia's first and the world's third airline to be accredited by IATA with the IOSA (IATA Operations Safety Audit).

Singapore Airlines flies to 65 destinations in 35 countries on five continents from its primary hub in Singapore. It has a strong presence in the Southeast Asian region, which together with its subsidiary Silk Air, connects Singapore with more international destinations in the region than any other Southeast Asian airline.

Year end	Revenue	Expenditure	Operating profit	PBT	EPS
March 2004	9761.9	9081.5	680.4	820.9	69.7
March 2005	12012.9	10657.4	1355.5	1829.4	113.9
March 2006	13341.1	12127.8	1213.3	1662.1	101.3
March 2007	14494.4	13180.0	1314.4	2284.6	170.8
March 2008	15972.5	13848.0	2124.5	2547.2	166.1

EMIRATES

Emirates Airline (shortened form: Emirates) is a subsidiary of The Emirates Group based in Dubai, United Arab Emirates (UAE). In 2008 the airline was the eighth-largest airline in the world in terms of international passengers carried, and fifth-largest in the world in terms of scheduled international passenger-kilometers flown. It is also the ninth-largest in terms of scheduled freight tonne-kilometers flown (eighth in scheduled international freight tonne-kilometers flown). The airline ranks amongst the top 10 carriers worldwide in terms of revenue, and has become the largest airline in the Middle East in terms of revenue, fleet size, and passengers carried and is the eighth largest airline in Asia, in terms of passengers carried. The airline operates over 3,710 passenger flights per week, to 101 destinations in 61 countries. Cargo activities are undertaken by the Emirates Group's Sky cargo division. Its main base is Dubai International Airport. On 16 October 2008, Emirates moved all operations at Dubai International Airport to Terminal 3, a new terminal dedicated exclusively to Emirates. Terminal 3 is over 1,500,000 m2 (370 acres),the single largest building in the world by floor space .During the 2007/08 financial year, Emirates carried 21.2 million passengers. A total of 1.3 million tones of cargo was transported by Emirates Airline and Emirates Sky Cargo, the freight subsidiary of The Emirates Group.

Emirates are one of only six airlines to operate an all wide-body aircraft fleet. Emirates will have 122 Boeing 777s in its fleet by 2011 making it the single largest aircraft type in fleet, and 58 Airbus A380s by 2012. The airline also hopes to have over 120 Airbus A350's in its fleet by 2016. The airline expects to have over 300 aircraft in its fleet by 2013. Experts suggest that Emirates will have over 500 aircraft in their fleet by 2021.

Emirates became the second operator of the Airbus A380 when their first aircraft was delivered on 28 July 2008. It is now in operation on the Dubai-New York JFK, Dubai-London Heathrow, and Dubai-Sydney-Auckland routes.

Emirates Airbus A330-200 lands at London Heathrow Airport The airline has recorded a profit every year since its inception, except the second, and growth has never fallen below 20% a year. In its first 11 years, it doubled in size every 3.5 years, and has every four years since. The Emirates Group announced a net profits of Dhs 5 billion (US$1.37 billion) for the financial year ended 31 March 2008, a 62% increase over the previous year. It is said that Emirates airline's turnover is almost 1/5th of the Dubai's GDP. For 2004–05, Emirates paid an increased dividend of Dhs 368 million to the government of Dubai, compared to Dhs 329 million the year before. In total, the government has received Dhs 1.1 billion from Emirates since dividends started being paid in 1999. Having provided an initial start-up capital of US$10m and an additional investment of circa US$80m at the time of the airline's inception, the Dubai government is the sole owner of the company. However, it does not put any new money into it, nor does it interfere with running the airline. During the 2007/08 financial year, Emirates carried 21.2 million passengers. A total of 1.3 million tones of cargo were transported by Emirates Airline and Emirates Sky Cargo, the freight subsidiary of The Emirates Group.

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In the financial year 2007/2008, Emirates carried 21.2 million passengers and 1.3 million tones of cargo. International Air Transport Association (IATA) statistics indicate that in 2007 Emirates ranked among the top-ten airlines in the world in terms of passengers (17.54 million) carried and kilometers (71.3million) flown in 2006/2007. In the fiscal year 2007/08, passenger seat factor increased to 79.8 per cent, up 2.6 percentage points from the previous year, led by an increase in traffic by 20.2 per cent. The airline carried 21.2 million passengers in the 2007/08 fiscal year, a 21% rise from the previous year.

Year	revenue	expenditure	operating profit	Net profit
2003-2004	[illegible]	[illegible]	[illegible]	[illegible]
2004-2005	[illegible]	[illegible]	[illegible]	[illegible]
2005-2006	[illegible]	[illegible]	[illegible]	[illegible]
2006-2007	[illegible]	[illegible]	[illegible]	[illegible]
2007-2008	[illegible]	[illegible]	[illegible]	[illegible]

AIR FRANCE

Air France (formally Société Air France), based in Paris, France, is one of the world's largest airlines. It is a subsidiary of the Air France-KLM Group and a founding member of the Sky Team global airline alliance. Air France operates worldwide scheduled passenger and cargo services to 185 destinations in 83 countries. The airline's global hub is at Paris Charles de Gaulle Airport. Air France was formed on 7 October 1933; Air France was formed on 7 October 1933, from a merger of Air Orient, Air Union, Compagnie Générale Aéropostale, Compagnie Internationale de Navigation Aérienne (CIDNA), and Society General de Transport Aérien (SGTA). In 1990, the airline acquired the operations of domestic French carrier Air Inter and international rival Union des Transports Aériens (UTA). Air France served as France's primary national flag carrier for seven decades prior to its 2003 merger with KLM. Between April 2001 and March 2002, the airline carried 43.3 mn passengers and had total revenues of € 12.53 bn. In November 2004, Air France ranked as the largest European airline with 25.5% total market share, and was the largest airline in the world in terms of operating revenue. Air France operates a mixed fleet of Airbus and Boeing wide-body jetliners on long-haul routes, and utilizes Airbus A320 family aircraft on short haul routes. The carrier's regional airline subsidiary, Regional, operates the majority of its regional domestic and European scheduled services with a fleet of regional jet and turboprop aircraft. Air France has received IATA accreditation with the IATA Operational Safety Audit (IOSA) for its safety practices.
Air France's slogan is ***"Making the sky the best place on Earth."***

Application of Porte's Five Forces strategy in the Airlines Industry

One of the classic evaluation methods of an industry is that of porters'. In his 1980 publication called —competitive strategies‖ porter talks about the five forces that must be considered while evaluating the industry. This is illustrated by the following diagram:

Threat of New Entrants

A lucrative industry is always a target for investors looking at investment. One of the foremost factors in consideration while looking at the attractiveness of an industry is the threat of new entrants. In the airlines industry, this was a major threat a few years ago. The airlines operating in he industry were limited and the industry had few players like Indian Airlines and Jet Airways. However, as the industry had scope for accommodating more players many players joined the fray. The airlines industry however comes with its fair share of barriers.

The investment in the airlines is very huge and acts as a major barrier to entry. Bundled with it were different permits for running an airline company from the civil aviation company and FDI limits. Factors that can limit the threat of new entrants are known as barriers to entry. Some examples include:

- Existing loyalty to major brands
- Incentives for using a particular buyer (such as frequent shopper programs)
- High fixed costs
- Scarcity of resources
- High costs of switching companies
- Government restrictions or legislation

Power of Suppliers

This is how much pressure suppliers can place on a business. If one supplier has a large enough impact to affect a company's margins and volumes, then it holds substantial power. In the airlines company there is certain amount of bargaining power the suppliers have. Firstly, suppliers in the form of aircraft builders, who very often exceed the time limits. Adding to it are suppliers of oil who hold the key to running of the airlines. Here are a few other reasons that suppliers might have power.

- There are very few suppliers of a particular product.
- There are no substitutes.
- Switching to another (competitive) product is very costly
- The product is extremely important to buyers - can't do without it.
- The supplying industry has a higher profitability than the buying industry

Power of Buyers

This is how much pressure customers can place on a business. If one customer has a large enough impact to affect a company's margins and volumes, then the customer hold substantial power. Predominantly, in the airlines industry, it has been seen that the civil aviation ministry has been in favor of the customer and buyers thus have reasonable power. While most airlines companies are running with wafer thin margins, it is pretty difficult for companies to increase prices as the capacity utilization will be seriously affected. Here are a few reasons that customers might have power:

- Small number of buyers.
- Purchases large volumes.
- Switching to another (competitive) airline is simple.
- The airline is not extremely important to buyers; they can do without the same brand for a period of time.
- Customers are price sensitive

Availability of Substitutes

What is the likelihood that someone will switch to a competitive product or service? If the cost of switching is low, then this poses a serious threat. Most airline companies have similar facilities and are listed on website such as makemytrip.com, yatra.com where customers choose from the cheapest available tickets. This shows that the customer has a lot of options and would not mind shifting to a new service. Here are a few factors that can affect the threat of substitutes:-n

The main issue is the similarity of substitutes. All low cost airlines have similar facilities.
If substitutes are similar, it can be viewed in the same light as a new entrant.

Competitive Rivalry

This describes the intensity of competition between existing firms in an industry. Highly competitive industries generally earn low returns because the cost of competition is high. The competition in the airline industry is cutthroat and each player is trying to gain an upper-hand based on non price factors. A highly competitive market might result from:

- Many players of about the same size; there is no dominant firm
- Little differentiation between competitors' products and services
- A mature industry with very little growth; companies can only grow by stealing customers away from company.

BOOM AND BUST IN INDIAN AVIATION INDUSTRY AFTER LCC.

Air India and Indian Airlines retained a monopoly over civil aviation in India till 1992. The deregulation of the Indian economy that started in the mid-1980s, and proceeded more aggressively after the New Economic Policy in 1991, led to calls for opening up of the airline sector. Over the following years, several new airlines including Damania, East West, Jet, Sahara, Modiluft and NEPC started operations.

However, high fuel costs, poor infrastructure, and a regulation that required them to fly on routes to distant parts of the country as well as on non-trunk routes threatened their financial viability.

By 1997, Damania, Modiluft, East West and NEPC were forced to suspend services. Jet and Sahara were thus the only survivors of the first phase of liberalization of the Indian domestic airline industry. In 2003, Jet, Sahara, and Indian Airlines shared the market between themselves with market shares of 46%, 9% and 40% respectively in the year-ending March 31, 2003.

The Emergence of a New Indian Airline Industry

The steady growth of the Indian economy after liberalization at a CAGR exceeding 6% increased the size of the economy, and hence demands for both business and leisure travel. Sensing opportunity, a new phase of development of the Indian airline industry kicked off in 2003 with the entry of new players into the airline industry. In spite of the fact that several costs of operating an airline were fixed irrespective of business model (as high as 80%), most of the new entrants chose to use low fares as their main competitive weapon and hoped to create low-cost operations to make these low fares viable.

In 2003, Captain Gopinath's started Air Deccan, the first low cost Indian airline that positioned itself as an airline for the common man. It revolutionized air travel by allowing everyone to fly by offering free tickets and fares as low as rupee 1.

While the established players – Indian Airlines, Jet and Sahara - initially ignored Air Deccan, the obvious demand for air travel at lower fares and the urge to fill vacant seats prompted them to start discounting fares as well. This took the form of a limited number of seats sold at lower prices (apex fares) if purchased 7, 15 or 21 days in advance with substantial penalties for cancellation. Later, as other —low-cost carriers entered the airline industry, discounting without the pre-purchase requirements of the Apex fares became the norm.

AIR DECCAN

Air Deccan's growth in the Indian aviation sector induced other players to enter as well. Thus, began the **boom phase** in the airlines industry with a number of low cost and full service airlines entering the industry in a span of 2 years (Kingfisher, Paramount, Go air, Spice Jet, and Indi Go entered in 2005). Two of the new entrants – Spice Jet and Indi Go – followed the classical —low-cost‖ airline model of very competitive fares, a single type of aircraft and a single class of service, point -to-point operations, quick turnarounds, no frills, and internet-based ticketing. Three other airlines – Kingfisher, Paramount, and Go Air- also entered the industry and followed diverse approaches to the airline business.

Competitive Dynamics

The rapid entry of new players into the Indian Airline industry changed its competitive dynamics. On one hand, the low fares of the —low -cost‖ players changed the growth dynamics of the industry. On trunk routes such as Mumbai-Delhi or Delhi-Bangalore, the fares of these airlines were close to the fares of air-conditioned rail travel. On the other hand, since airlines had an expensive fixed asset (a new Airbus A-320 had a list price in excess of US $70 million) and a perishable commodity (each seat on a given flight), they strove to fill their seats by offering attractive deals such as special fares of Rupee 1 or Rupees 99 per passenger for a seat that had cost passengers more than Rs. 10,000 in the past. Full service airlines were forced to drop fares as well though their minimum fares tended to be still higher than those offered by the —low-cost carriers.

These low fares attracted leisure travelers to fly by air. The overall growth rate of the market was about three times faster than the growth in business travelers. The proportion of business travelers on full-service carriers such as Jet Airways came down to about two-thirds.

Airlines sought to build strong relationships with the manufacturers of aircraft so as to get the best possible terms and support. Low-cost carriers sought to supplement their revenue streams by advertising, sale of food on board, and selling other services (e.g. insurance). In the full-service airline category, competition took on several new dimensions. Kingfisher Airlines introduced leather seats, in-flight entertainment with live television, gourmet meals, and a luxurious —Kingfisher First‖ for its business travelers on board its fleet of new A-320 aircraft, and valet services on the ground.

Restructuring of the Industry

The rapid increase in costs combined with competitive pressures to keep fares low threatened the survival of relatively less efficient airlines. At the same time, leadership in terms of size and market share emerged as a quest of some of the industry's important personalities. These developments spurred consolidation initiatives.

The first of these was the takeover of Sahara by Jet Airways. This acquisition gave Jet access to Sahara's fleet of Boeing 737 and CRJ aircraft, and, more importantly, Sahara's parking slots in major Indian airports. Though the deal was announced in early 2006, Jet completed acquisition of Sahara in April 2007 and decided to run the airline as a value carrier subsidiary under the brand name Jet Lite.

An even bigger acquisition was followed– in mid-2007; Kingfisher acquired a controlling stake in Air Deccan. Kingfisher justified the acquisition based on synergies in aircraft maintenance, and spares since Air Deccan and Kingfisher both had fleets of the same types of aircraft (A -320 jets and ATR turboprop). Other shared services would include sales and marketing, ground handling, engineering services, customer service, and training. Over time, Kingfisher hoped to —mesh routes and frequencies through combined strengths of network reach, connections, frequencies, and infrastructure.‖

Since Deccan would be eligible to fly on international routes by August 2008, Kingfisher planned to use the Deccan brand to enter international routes in case it was unable to get the policy requiring five years of prior operating experience changed.

Following the takeover of Deccan, it was re-christened as simply fly Deccan, and Deccan's aircraft were re-painted in the distinctive red and white livery of Kingfisher at a reported cost of Rs. 600 million. Ground handling equipment and buses reflected both the Kingfisher and Deccan brand names. Following the takeover, Deccan served free water on board, operations were streamlined, and Deccan's prices increased. The airline was renamed once again as Kingfisher Red in 2008.

The third major consolidation was the merger of the two national carriers Indian Airlines and Air India into a single national entity under the corporate name of National Aviation Company of India and the brand name of Air India. This move was first mooted several years earlier, but was ultimately consummated only in 2007. Shortly before the official approval of the merger, the boards of Indian Airlines and Air India approved major fleet expansion plans that would result in a complete overhaul of their respective fleets.

With no major new carrier having entered the airline industry since 2006 (partly due to the intense competition in the industry, and partly due to the reluctance of the government to allow more airlines to jostle for an already congested air infrastructure), consolidation is expected to help the long-term sustainability of the airline business.

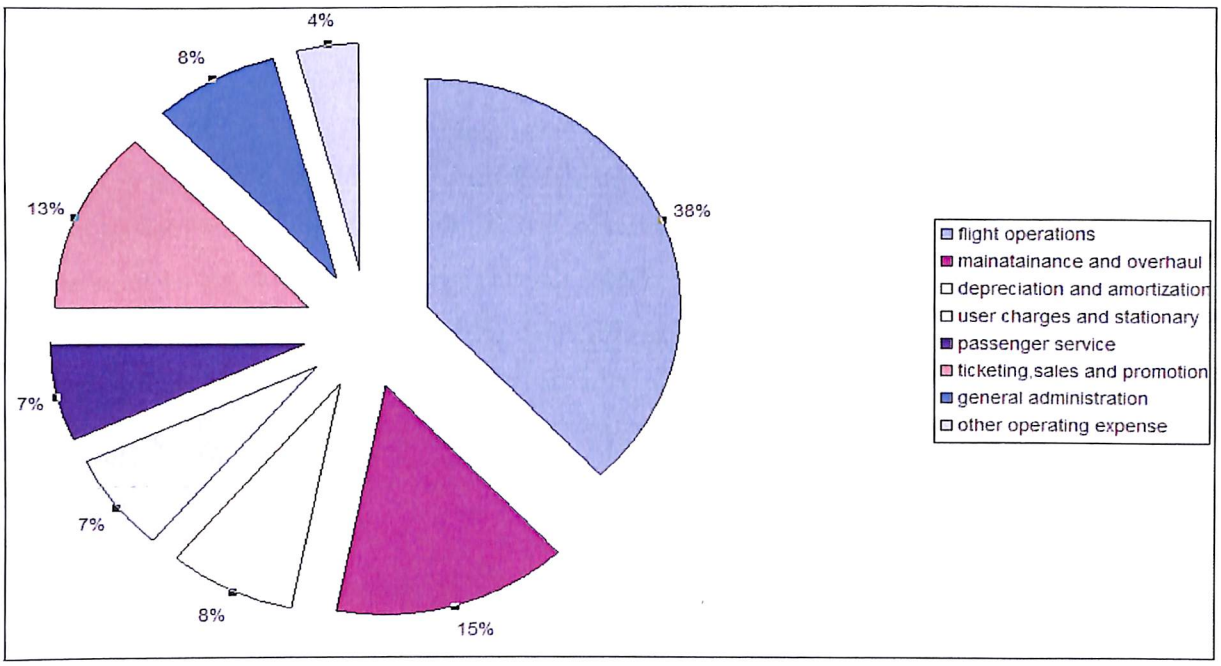
Low Cost Carriers

A low-cost airline offers a point to point service, rather than the hub and spoke model concept followed by conventional full service airlines. In the hub-and-spoke model, the aircraft flies out from the airport only when all the connecting flights come in. While in the point-to-point model a passenger travelling on two separate connecting flights is issued two separate tickets. He has to check out his bag and then check in to take the connecting flight.

Cost advantage:

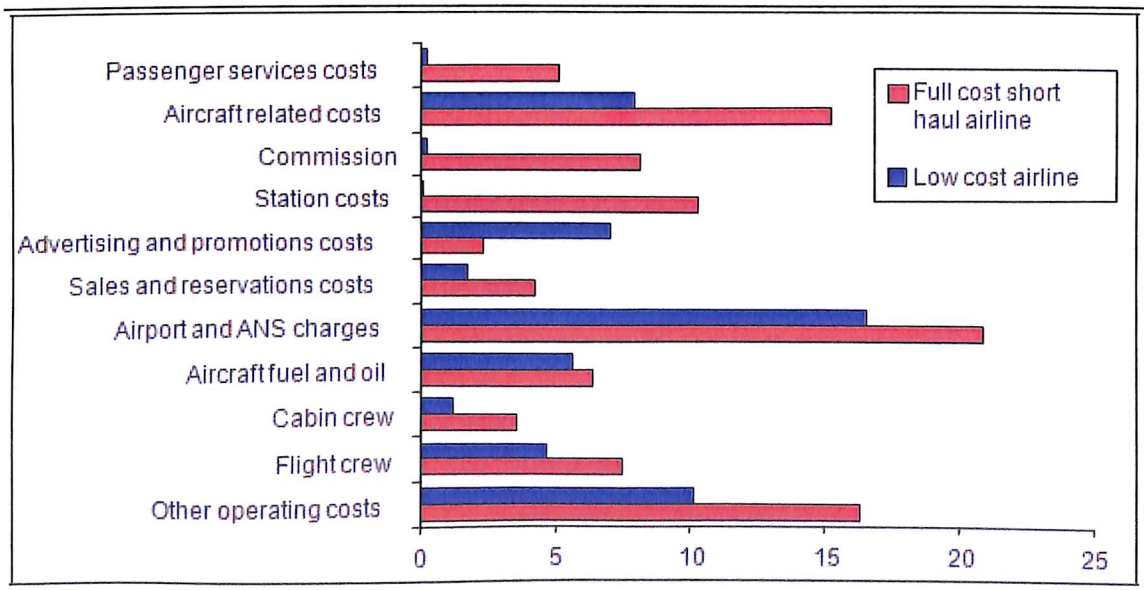
Low cost airlines provide air service at costs 25-50% lowers than a full service airline.

An Illustration of the Cost structure of Full Service Airlines as a % of Operating Expense:



(Source: ICRA report, Civil Aviation, April 2009)

Breakdown of Cost savings



(Source: www.indiastats.com)

The cost advantage of the low cost carrier is a result of savings on various factors given below:

Full service airlines provide their passenger with many attendant services like hot meals, frequent flyer programs, spacious legroom etc. While low cost carriers do not provide frills like hot meals and frequent flyer programs and work with the minimum number of air hostesses on the flight. Removing business class, storage space for the meals and limited seat pitch (maximum inclination of the seat) makes space for additional seats which can increase the seat capacity of the plane by 20%.

Low cost carrier aircrafts take less time to leave the airport after landing which increases their flight time by 20-25% as compare to the full service carrier aircrafts. These airlines do not issue tickets to passengers to save costs on printing, mailing and processing tickets. Passengers are issued a booking number, which they quote at airport check-in, and present their photograph to collect their boarding pass. They also save on distribution costs by disinter mediating travel agents and central reservation systems and selling through internet and call centre. They also try to minimize capital costs and costs of the crew and hanger age.

In Europe and the U.S. low cost airlines avoid flying into the mainland airports and save on high parking and landing fees. India has very few secondary airports, because of which the airport charges constitute a sizeable portion of the cost structure that could be reduced considerably.

THE "LCC" PHENOMENON IN INDIA

Southwest Airlines, now a major carrier in the U.S., operating local routes in Texas in the 1970s pioneered the low cost carrier business model. In India, the model was introduced in 2003 by Air Deccan. However, the same descriptive label masks the significant differences in ways the model has worked in India vs. U.S.

First, in terms of market share, LCCs accounted for almost 30% of all domestic passengers carried in 2006 . As of November 2006, it rose to 35%. This rate of market penetration of LCCs is remarkable given that the market share was zero in August 2003. Low cost carrier operations account for 44% of all flights within India compared to19% in the U.S.

The second significant difference has to do with the relationship between low cost and low fare .In U.S., the LCCs offering low fares are also truly low cost operations. In India, the airlines that offer low fares are in reality not low cost operations. They are LCCs only in name. Among the LCCs in India, Spice Jet has the lowest unit cost at 6.2 cents per ASK, which is comparable with Southwest,

Easy Jet, and Jet Blue. But this is more than twice that of the best performer, Air Asia with unit cost of slightly over 3 cents per ASK..

These flies in the face of what LCCs outside India like Ryan air have done when they were in a similar stage of their growth. Ryan air focused on lowering costs while finding ways to enhance revenues by selling food and drinks during flight to captive passengers and selling services such as insurance, hotel reservations, and rental cars on its website. Deccan seemed to have followed similar strategy in terms of charging for baggage (by offering limited baggage allowance) and food, and expanding capacity but with a crucial difference that it did not share the obsession of Ryan air and Air Asia to reduce costs.

STRATEGIES FOLLOWED BY LOW COST CARRIERS IN INDIA

AIR DECCAN

Air Deccan started its operations in August 2003, offering a low budget, no frills airline service. It was operated by Deccan Aviation Pvt. Ltd and headquartered in Bangalore. It started operations on non-trunk short-haul routes in South India and offered fares that were compared to high-end railway fares. The airline also offered flights on trunk routes on significant discounts to the full-service operators like Jet Airways and Air Sahara. Air Deccan had positioned itself as the first domestic low cost carrier.

Captain Gopinath, the promoter, owns 26% of the equity in the company, while venture capital funds, ICICI Ventures and Capital International, had infused equity worth US$ 40 million with an option to infuse a further US$ 10 million at a later stage. There was demand for airways in various small towns that had airports but did not have any connectivity. This pointed to a dormant need for scheduled air services to connect the hinder land. Air Deccan was launched as a low cost airline to meet this need.

Mr. Gopinath did not dream for Deccan to be the biggest airline in the country, but one that was tapping into a niche market. It initially connected only the smaller towns with metropolitan cities, starting with airports in South India.

Once Air Deccan got experience in connecting the unconnected airports, it ventured on the trunk-routes by seeking to connect the larger airports. Leveraging on its initial success, the enterprise entered the trunk route segment with an Airbus A320 jet aircraft.

Vision

Empowering every Indian to fly

Mission

To demystify air travel by providing reliable, low cost and safe travel to the common man by constantly driving down the fares as an ongoing mission. For the same reason Mr. R. K. Laxman's Common Manwas chosen as the brand ambassador.

Air Deccan's Icon: The Common Man

The Business Strategy

Typically, LCCs provide point-to-point service avoiding connecting flights and baggage transfers while FSCs base their operation on a hub-and-spoke system. Air Deccan has deviated from the LCC business model in the sense that instead it has a hub-and-spoke type operation to connect metros with smaller towns. It also provides point-to-point service between metros and large cities. However, industry analysts have pointed out that this has increased the costs for Air Deccan.

Concentrated on unconnected regional areas:

They did not connect with the metros initially. They entered the regional areas, which were disconnected, but promised capacity traffic.

Two pronged fleet strategy:

Shorter runways at the regional airports, which were much smaller in size; while the jet aircrafts on the trunk routes helped it to achieve higher capacity and carry passengers over a longer range than the ATRs. They were plying 48 and 72 seater ATRs on the regional routes and the 180-seater A320 on the trunk routes. The logic behind the strategy was that the smaller aircrafts were suitable for the

Lease with AIRBUS:

They entered into a operating lease with Airbus, wherein the title remained with the aircraft owner, while the operator paid up rental payments, which were tax deductible and reduced not only the capital expenditure on the operator's balance-sheet but also the operator's exposure to uncertainty of the aircraft's residual value at the time of its disposal. The lease payments comprised of a fixed base payment and a variable maintenance reserve determined based on the aircraft usage.

Quick turnaround:

Implying that the aircraft are utilized more thereby reducing the capital and crew costs, apart from the hangar and finance costs.

High Frequency:

High frequencies of flights plying between 2 cities, thus ensuring customer loyalty (The business traveler thinks if he misses one, he can take the next one as there are flights every 15 minutes, or the one after that).

Lean Staffing

It adopted a "lean and mean" approach to staffing levels and aimed at maintaining a low aircraft-to-employee ratio to keep costs down and ticket prices low.

Reduced expenses on Cabin crew:

- Air Deccan's pilots stayed in company guest houses and transit houses while the full service airlines pilots stayed in five star hotels.
- Air Deccan did not have a separate cleaning staff. The air hostesses cleaned the aircraft and obtained a cleaning allowance.
- The transit inspections were not done by a separate engineering staff. The pilots themselves did the inspection.

Booking/customer touch points

The company pioneered the introduction of e-ticketing and ticket purchase through multilingual call centers that were open throughout the day.

Other modes were as follows:

- Airport counters.
- Travel agents across India.
- Reliance Web Worlds.
- Indiatimes web site.
- Club HP outlets of Hindustan Petroleum Corporation in 7 states of India.
- City office counters at Bangalore and Chennai.

Dynamic fare pricing:

Its fares were dynamic in nature and were governed by the demand and supply situation. The earlier one booked, the lower was the fare (this was also known as APEX-advanced purchase scheme).The fares were advertised through the news paper media.

Deccan's innovative marketing strategies:

During off-seasons (sometimes even during peaks) it offered seats as low as Rs.500. This intrigued the customer to the hilt. They would wait patiently (rather not!) for the announcements from Deccan to come. Once announced customers would book as many tickets as he could in the allotted time frame. (However, there was a loop-hole tickets booked in this promotional scheme were not refundable nor were any date changes permitted). enough, they then came up with a Re 1 ticket in June,05. These made the customers (and the competitors) go mad. It was evident in the number of hits on the website the day these promotions were launched.

In addition to this, Air Deccan plans sold tickets by mobile vans and at petrol pumps to tap the middle class segment, with a tie up with Hindustan Petroleum Corporation Ltd (HPCL) to sell tickets at its Club HP petrol pumps. Maruti vans hired by the travel agency installed with web-enabled services will serve as mobile ticketing counters to sell tickets six days a week (Monday to Saturday) and payments could be made in cash or by cards.

The mobile ticketing centers will be connected to a central reservation system to enable providing confirmation of the tickets. The bulk of the customers at petrol refueling stations were the middle class, the very segment that Air Deccan wanted to tap.

The proposal is a win-win situation for both, since the cash earned by the petrol pumps could be rolled over due to the sale of tickets.

Financial results of Air Deccan During 2003-04

Total Operating Revenue	**682**
Operating expenses	
Flight Operations	223.4
Maintenance and overhaul	156.4
Depreciation	11.2
User Charges	60
Station Expense	26.5
Passenger Service	20.4
Ticketing, sales and promotion	15.3
General and administration	110
Other operating expenses	18.7
Total operating expenses	**641**
Operating result	40.1
Non-operating items	-31.8
Profit/loss	
Net profit/loss before tax	**8.3**
Net profit/loss after tax	**5.6**

(Source: ICRA report, Civil Aviation, April 2005)

We can analyse and infer Deccan's strategy of low cost from the table above. The percentage of money spent on ticketing, sales and promotion were as low as 2.24% and the extent to which the company spent on passenger service was also a meagre 3%. Hence, we can see that the company was stringent on the indirect expenses to reduce cost and keep ticket prices low.

We can see that the major share of expense of the company is on —Flight operations‖ and —Maintenance and overhaul‖. The next major area of expense is —General and Administration‖. It is also because a country like India doesn't have secondary airport which has low taxes and surcharges unlike the western world where its counterparts enjoy the differential taxes and surcharges on different graded airports.

SPICEJET

SpiceJet is a low-cost airline based in New Delhi, India. It began service on May 23, 2005. It was earlier known as Royal Airways, which was earlier known as ModiLuft. It is promoted by the Kansagra family. By 2008, it was India's second largest low-cost airline in terms of market share. SpiceJet was voted as the best low-cost airline in South Asia and Central Asia region by Skytrax in 2007.

Cost Control

SpiceJet is focused on twin pillars of cost control and growing its ancillary revenue. It follows the classical —low-cost‖ airline model of very competitive fares, a single type of aircraft and a single class of service, point-to-point operations, quick turnarounds, no frills, and internet-based ticketing. But unlike other low-cost airlines, water and snacks served on-board SpiceJet aircrafts is free.

SpiceJet has also focused on the curved winglet design which reduces noise and improves fuel economy by 2-3 per cent. The company has also expanded inner aircraft room by reducing unnecessary storage areas and allotting them to passenger seats.

The airline marked its entry in service with Rs. 99 fares for the first 99 days, with 9000 seats available at this rate. This deal was followed by a Rs. 999 promotional scheme on select routes. Their marketing theme is "offering low 'everyday spicy fares' and great guest services to price conscious travelers. Their aim is to compete with the Indian Railways passengers travelling in AC coaches. The airline in May 2007 offered two-lakh seats at a special price of 99 paise for two or more persons travelling together on all non-stop flights covering 14 destinations. Recently in January 2009, it came up with another attraction – Book two air tickets, Pay for one'.

Value-addition to customer

SpiceJet has introduced online travel insurance in partnership with TATA AIG with which they have maintained a consistent rate of 28 per cent of sales since the introduction of the product.

It provides value-adds to clients by having internet banking for customers, wherein they can select any bank with which they have an account and can use their own login credentials, which is essentially for customers not owning a credit card or not inclined to using one, are among the other major initiatives.

Apart from these, it provides efficient information flow to clients, wherein the system gives the clients a recorded call giving information about the flight; creating a portal for crew (pilots and cabin crew), which enables them to communicate with each other. SpiceJet plans to introduce an on-board wireless telephone system for all Spicejet passengers.

Operational efficiency

As Michael Porter says, a company can outperform its rivals only if it can establish a difference it can preserve. It has partnerships with global leaders in their respective fields to enhance safety and reliability. The company is well supported in the maintenance department by KLM and state-of-the-art technology from world leaders like the Star Navigation, Russell Adams and Tech Log.

SpiceJet Airlines has started partnership with Navitaire, the world's renowned low-cost support system for reservations and revenue management. E-booking and E-ticketing are available in SpiceJet. It made significant investments in information technology to provide a backbone for operational effectiveness.

These approaches resulted in SpiceJet achieving the lowest costs in the industry (Rs. 2.65/Available Seat Kilometre (ASKM) in 2008) and a flight dispatch reliability exceeding 99.5%. SpiceJet's efficiency is comparable to that of the legendary low-cost SouthWest airlnes.

Marketing Strategies

SpiceJet has a unique marketing strategy that focuses on word-of-mouth marketing, supported by print and Internet media initiatives. To build further on its branding value, SpiceJet has introduced on-board merchandise sales such as goggles, airplane models, perfumes, caps and watches. Sales of branded merchandise will also be available through the company's website.

While there is stiff competition in the low-cost carrier market in India, the competitive edge for SpiceJet lies in the quality of service offered during the flight. This has resulted in 42% repeat flyers, 45% of business travel and over 90% of passengers recommending the airline through word of mouth.

Strategies for Future sustenance

Expansion Plans

SpiceJet started its operations with 5 Boeing aircrafts in its fleet and ramped it up to 18 aircrafts covering 17 destinations and 117 flights daily by May 2008. It reported a net loss of Rs. 133.51 crores in the year 2007-08 and a loss of Rs. 17.91 crores in 3rd quarter of 2008-09. SpiceJet still has major expansion plans. It has another 30 aircrafts on order for delivery between 2008 and 2011.

Open to Foreign investments as well as buyouts

On July 15, 2008 Billionaire Wilbur Ross invested $80 million (about Rs 345 crore) in the low cost airline.

"If any foreign airline comes on board as a strategic partner, we will certainly welcome them.If the right opportunity is presented SpiceJet could be a buyer too." – Chief Executive Officer, Sanjay Aggarwal on Feb 18, 2009. He expects consolidation in the Indian airline industry over the next 12 to 24 months as the landscape is too small for so many players.

Convenience to passengers

It plans to initiate roaming agents wherein passengers without baggage are assisted by the roaming agents at the airport to skip check-in are some of the other initiatives. In future, Spicejet plans to start Web Access Protocol (WAP) on the mobile phones of the passengers and SMS check-in through which passengers can skip check-in by just showing the barcode or the notification on their mobile phones.

Ancillary Revenues

SpiceJet have entered into a Joint venture with The UK based online retailer UnderFivePound.com. The company through its website, sells a range of men's, women's and children's clothing along with other items such as jewellery and houseware gadgets, all for less than £5 and is known for its discounts and freebies.

Keeping the pricing of the merchandise in sync with the image of a LCC, SpiceJet expects to sell value-for-money items on board, to its customers.

Automation to sustain expansion

SpiceJet has automated its cargo business processes to support its aggressive expansion plans for its domestic cargo operations. This will ensure an integrated management of cargo reservations and ground operations including flight planning, inbound cargo operations, billing and shipment tracking. SpiceJet becomes the first Indian LCC to use this high-end business solution.

INDIGO

Indigo Airlines has been one of the airlines which has been eating away market share from its competitiors. Its market share increased from 5% in the first quarter of 2007 to 10.3% in first quarter of 2008 to 15.4% in December 2008 (Figures by DGCA). The airline has been taking radical steps to cut down on costs. They have set a record for using the lightest passenger seats in India which weigh only 12.8 Kgs. They have started using paint which overall weighs 50 Kgs less. Such weight savings are negligible on their own but collectively, It has been helping Indigo to cut on costs and function as a —low cost airline‖.

The airline has trained its crews to de-plane the passengers in 6 minutes and unload the baggage in 10 minutes. It regularly acheives Turn around times of around 22-25 minutes(Industry Average being much more than 30 minutes). The lesser the time taken at the airports, the more the airplane can fly and earn more revenues.

Indigo has a fleet of 19 Airbus 320s and they intend to receive 81 more similar planes by 2016. All the planes have exactly the same configurations, having the same engines, same number of seats in one class configuration. Indigo's fleet makes up approximately 6.5% of India's combined fleet size and comparing this figure with the market share figures, it shows that Indigo has been successful in attracting customers away from other airlines. Indigo has reported a Load Factor of 75.7% in December 2008 when the Industry's average was 65.6%.

Indigo's Strategy for Sustenance

Indigo has adopted a three strategy to sustain in the current difficult environment. It tries to keep its cost lowest amongst the low cost airlines, provide passengers with best on time performance, clean aircraft, and high reliability; and finally grow cautiously without tinkering with its business model.

War on Costs

On an average, an IndiGo aircraft flies for around 12 hours a day, compared to eight to 10 hours logged by most competitors. The extra hours allow it to undertake one extra flight daily, which translates into more seats and revenue.

To do this, the airline realized early that it has to ready its aircraft for another flight quickly. Its first target was 30 minutes. IndiGo has bested the target: it has brought the turnaround time in secondary cities to 22 minutes and on many days it has achieved the feat in less than 25 minutes in busy airports like Delhi.

Indigo has broken up the job into small parcels like loading, unloading and cleaning with time targets and each of these is monitored. The team is trained to focus on its job. They have even turned around an aircraft in 14 minutes.

There are other simple ways IndiGo has employed to trim costs. The airline, for instance, was amongst the first customers for the Select1 V2500 engines manufactured by Zurich-based IAE, a joint venture between Rolls Royce and Pratt & Whitney, which will help it cut fuel-burn by around 2 per cent.

To reduce its cost of holding inventory of components, IndiGo has done a tie-up with Air France under which the French airline will stock components required by Indigo. In this way, the Inventory will not be in Indigo's Books.

Reliable and On-Time Service

Indigo's Management has tried to attract customers with more than just low fares. An important factor is its on-time performance of 94 per cent – much higher than its other rivals. This, has helped the airline gain customers, though it does not have a loyalty programme. They try not to cancel or withdraw flights suddenly.

To ensure that its flights depart and arrive on time in spite of the dense fog that envelops Delhi and other northern cities without fail every winter, IndiGo has one of the highest percentages of pilots who are trained to fly under such conditions.

According to the latest figures released by the civil aviation ministry and the Directorate General of Civil Aviation, nearly 38 per cent of IndiGo's pilots are CAT III compliant or are able to fly under low visibility. In contrast, its competitors like SpiceJet or JetLite do not have any pilot in that category. Even full service airline Jet has only 22 per cent of its pilots trained to fly under fog.

To support such high on-time performance, IndiGo has set up a centralized operations control centre which monitors the weather, anticipate delays and even provides advance information to the ground staff in case an aircraft requires some repair or maintenance while it is airborne so that the engineers are ready to rectify the problem and waste no time once the aircraft lands. Also, as the average age of the fleet is about 1 year, the occurances of technical faults are low and because of this IndiGo has managed to achieve high On-Time performance.

Avoiding Deccan's Mistakes and Grow Cautiously

The pain which Capt. Gopinath's Air Deccan faced has often been attributed to haphazard expansion in routes which it undertook. Indigo has consciously tried to stay away from such an expansion. With a fleet size of 19, Indigo touches 17 cities while Deccan with a similar size of fleet managed to touch 43 cities. Indigo usually reaches a new city, consolidates its position and then offers new flights from there.

As mentioned earlier, Indigo managed to get sub 25 minutes turn around time which even others managed. However, Indigo did not freely hire to achieve such times. It has kept a tight leash on staff requirements and has only 100 workers per aircraft while other operators are known to have nearly 130 workers per aircraft.

Outlook for IndiGo

Analysts say that IndiGo has the potential to become a global low-cost carrier, provided it can tide over the current slowdown. If it has the cash to sustain itself for another two years, IndiGo surely will be one of the big players in the low-cost space globally with its expected fleet size of about 100 planes by 2016.

At the moment, little is known about IndiGo's financial health because it is not listed on the stock exchanges and, therefore, does not have to put its profit and loss statement in the public domain every quarter, though it is certain the company is in the red like all other Indian carriers.

IndiGo has hardly advertised and indulged in brand building activities. Its fast growth has been solely due to word of mouth and repeat customers. However such fast growth may not be sustainable without some brand building exercises. The airline could concentrate on surviving the tough times which the industry is facing and then once the environment gets better then should indulge in brand building exercises.

GoAir

The airline was established in June 2004, and it started operations on 4 November 2005 .Headquartered in Mumbai, Go Air is wholly owned by the Wadia Group, Mumbai based and majority owners of Bombay Dyeing and Britannia Industries. On 9 June 2005 GoAir announced that it intended to launch operations in October 2005 with a fleet of 20 leased Airbus A320 aircraft. At the time the airline was in discussion with both Airbus and Boeing on the purchase of between 20 and 40 new aircraft, with a contract to be in place by the end of 2005 and with deliveries to start by 2007. An order for 10 aircraft from the Airbus A320 family was announced in July 2006.

CORPORATE STRATEGY AND CUSTOMER FOCUS

- Go Air's objective is to offer its passengers a consistent, quality-assured and efficient performance at affordable fares.
- Go Air airlines has tried to target the First, Second and Third A/C Railway passengers and Volvo Bus Passengers. GoAir has strategically divided the fare structure in such a way that the railway passengers can benefit most from this arrangement.

- Its fares are 40% lower than that of traditional airlines.
- The chief motto of GoAir is to provide a consistent, time-efficient operation while maintaining the low fare scheme through the state-of-the-art Airbus A320 Aircraft fleets
- GoAir and as part of its strategy to maintain quality, it has strategically tied-up with the Radixx International, a leading technology provider of automated aviation and travel related software solutions.
- Initially, the airline was limited to Mumbai, Ahmedabad, Goa and Coimbatore. With induction of more aircraft, the network has expanded its wings and now GoAir services can be availed in 13 cities. GoAir has 61 flights daily to all theses places.
- Focuses on providing quality service
- Best on-time performance
- Quick turnaround of aircraft that average around 25 minutes.

Delivering Value to customers:

- Ease in Booking: The passengers who may not have a credit or debit card or access to a Computer need not travel long distances to book their GoAir tickets, but can book them from any of the distribution mediums, which include GoTravel Agents, GoTata Indicom Outlets, GoInlott outlets, GoCyber café and GoPCOs.
- Passengers can carry fast food items like the sandwiches, burgers in the flight. However the passengers are also given complimentary peanuts, biscuits and water during the flight.

Services offered to the passengers:

- Web Bookings of Tickets
- Ticket bookings without Passenger Service Fee (PSF) and any applicable Fuel surcharge.
- Provision for Excess Baggage with the payment of a nominal amount.
- Fare Structure—Infants up to the age of 24 months will be charged Rs 275 plus applicable PSF, provided they donot occupy a seat. Taxes and Fees include passenger service fee of Rs 225, a fuel surcharge of Rs 750 and a congestion surcharge of Rs 150 and passenger handling fee of Rs 100

THE HUB MODEL

The strategy of GoAir has been to be a strong player around a hub rather than spread all over the country and grow step by step. This is an attempt to emulate the point-to-point strategy of South West Airlines of the United States (the first to come up with a low-cost airline). That is why initially they concentrated on Mumbai, then went on to Ahmedabad, Goa and Coimbatore and now they have services in 13 cities.

The logic behind this model is that instead of aggressively moving to new cities, if an airline first increases flights in the existing network, it has a two-fold benefit, it can spread its costs across different overheads. Hence, if it deploys three flights from the same place it can utilize its crew, fuel and aircraft more, leading to positive yields and thus profitability.

The other point to be noted is that its hubs are usually metros and tier-2 cities which have better infrastructure or are in the process of development and also have higher occupancy rates due to higher levels of income. Its strategy has been to garner as much load factor as possible.

RED EYE OPERATIONS

These are the early morning and late night flights. The flights get their name from the fatigue symptom of having red eyes. This concept is also a replication of the strategies of airlines abroad. These flights usually operate during the period from 9:00 p.m. to 5:00 a.m. local time. They are also sometimes called "dry flight", since there is an absence of moisture in the air at high altitudes during late evening and early mornings.

The advantages of this model are:

- These flights lead to higher utilization of resources.
- They attract traffic especially from those small and medium enterprise (SMEs) and business travelers who after finishing meetings late in the day, need to connect with a new destination the following morning.
- Helps reduce infrastructural problems of governments as it decreases rush during peak hours by diverting traffic.
- Gives benefits of lower fares to passengers.
- Moreover, this model has been implemented only for connecting metros and tier-2 cities as most of the business meetings take place in such cities.

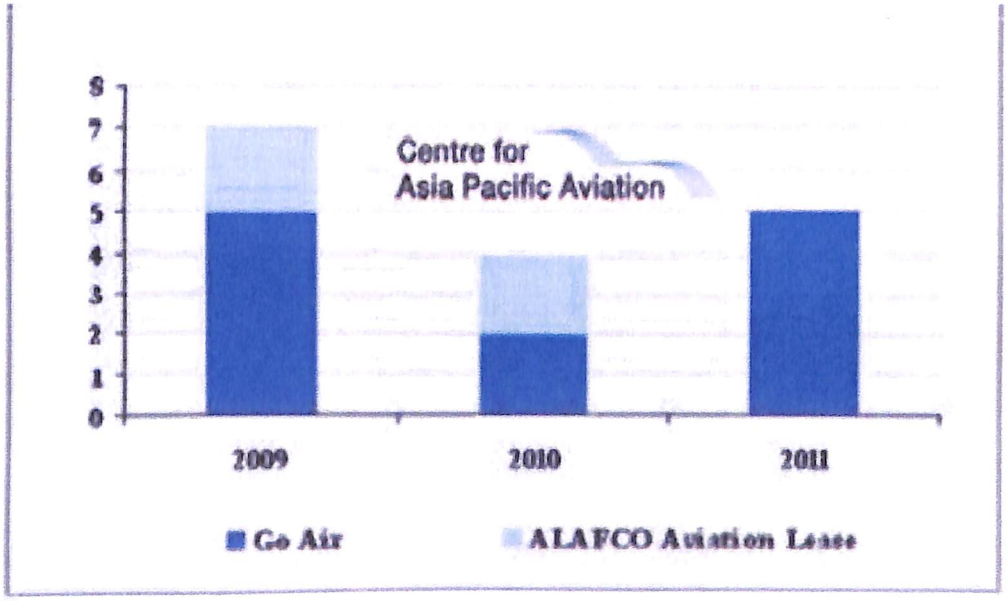
This is a perfect example of how GoAir fits its extra resources strategically to help in better utilization by using a combination of increasing operational effectiveness and satisfying unique customer need at the same time.

SLOW FLEET EXPANSION PROGRAMME

Even though GoAir follows a slow fleet expansion programme, it does not believe in aggressive expansion as it may create problems in periods of slack demands and put pressure on costs. Hence this is another one of its strategies to complement the low cost model and bring synergy in its costs and prices.

However, as part of Go Air's restructuring plan, its fleet growth does appear to have been adjusted downwards. Of the 20 A320s ordered, the carrier plans to take delivery of four more A320s by Jun-09. The airline currently has a fleet of six aircraft, but plans to return some aircraft to lessors, for a net fleet of eight A320s by Jun-09.

GoAir was originally scheduled to increase its fleet to ten aircraft by the end of 2009. The carrier previously dramatically slowed its original growth plans of taking delivery of 33 aircraft by the end of 2008. GoAir previously placed firm orders for 20 A320s, and in Apr-08 deferred a proposal to order another 20 A320s (for delivery after 2011), stating it planned to wait for prices to go down before buying additional aircraft.



Source: Centre for Asia Pacific Aviation and Ascend

The figure depicts how GoAir has been very conservative in its approach of adding planes to its fleet in order to not put pressure on costs. It is also evident that by 2011 it plans to get rid of all the leased planes, which would in effect wash away all the rental costs.

Another strategic reason behind following this policy was that GoAir viewed current aircraft prices as too high, and was confident pre-2013 delivery slots will become available as other carriers would realize they cannot take delivery of all the A320s that have been ordered.The carrier also awarded Air France Engineering a six-year USD40 million contract to provide MRO services for its future fleet of A320 aircraft.

This gives us a glimpse of how it incorporated its future strategies into its present ones by keeping cost saving at the forefront.

FREQUENCY ENHANCEMENT PROGRAMME

Another strategy followed by GoAir is that of increasing the frequency of its flights. It is able to do so due to its hub model which concentrates on enhancing presence around a particular hub which are essentially Tier2 cities or metros where the occupancy rates are higher and demand is higher, hence creating need for higher frequencies. As a part of this programme it had added two new aircraft to its existing fleet in 2007, with this it announced that it would be doubling its current flight operations from 259 to 561 commercial flights per week. The key focus was to reiterate consumer commitment and ensure consumer comfort.

This operational strategy came at a time when the airline had been seeing a consistent load factor in excess of 80 per cent over the past few months. Hence it identified a business opportunity at the right time and used its resources to leverage on it and integrate it into its overall strategy. This programme was also an attempt towards consolidation, in order to integrate the 11 destinations the company operated in at that time.

GoAir has added morning, afternoon and evening connections in Mumbai and Delhi to connect the two metro cities to key business and leisure destinations like Bangalore, Goa, Hyderabad and Chennai as part of its flight operations strategy.

FLEXI-FARE

- In 2008, GoAir launched a new scheme under which the passenger would be able to make unlimited changes in its travel itinerary free of cost.

- Besides, GoAir has cut the cancellation changes to Rs 200 on all GoFlexi bookings. With the new plan GoAir is seeking a competitive edge over other low-cost airlines, who levy rescheduling and cancellation charges of Rs 500-750 on their passengers.

- Through this GoAir is targeting frequent-flying business passengers, such as traders and executives. It is not the leisure travellers or occasion-flying customers making frequent changes to their schedule, but the frequent fliers who bring in bigger chunk of revenue for airlines.

- GoFlexi bundle allows cancellations or rescheduling to be made up to two hours prior to scheduled time of flight departure.

- A passenger booked under GoFlexi Fare will not be charged the transaction fee applicable for re-booking a confirmed GoAir ticket. The passenger will only have to pay the difference in fare amount between the original booked fare and the applicable fare of the revised booking.

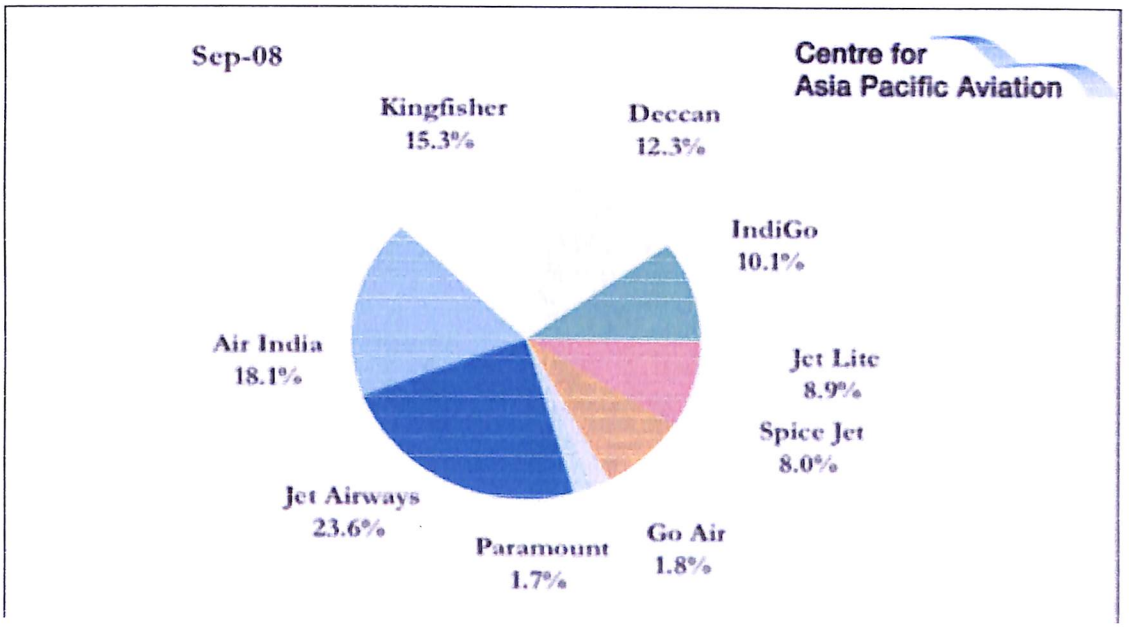
- In case, the new fare is lower than the originally booked fare, the difference in fare amount will be retained in the passengers' credit account with the airline for utilization within six months period.

- This plan was initiated as an effort to gain a competitive advantage by catering to a unique customer need of a niche customer segement thereby increasing brand loyalty.

LAUNCHING OF GO-COMFORT

In an attempt to align its strategy to the recent trends in the environment, GoAir announced plans to trial a premium section, "Go Comfort", effective from the Winter of 2008/09 Schedule. This strategy is as part of its effort to re-brand itself as a "value carrier".

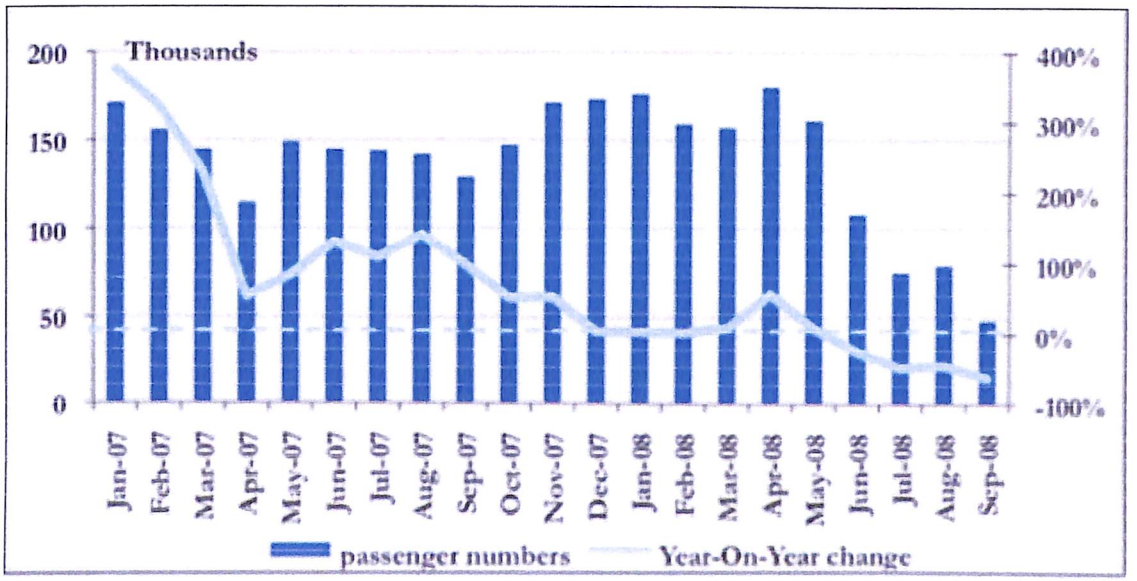
INDIAN DOMESTIC PASSENGER MARKET SHARE IN SEP-08:



Hit by high fuel prices, intense competition and weak growth in price-sensitive demand, GoAir's shift of business model underscores the difficulties facing poorly capitalised LCCs. Ministry of Civil Aviation reports GoAir's captured only a 1.8% domestic market share in Sep-08.

Another reason for this move away from its current LCC model is the necessity to sustain itself by containing losses and retaining passenger numbers aggravated by India's rapidly slowing aviation sector. Ministry of Civil Aviation reports GoAir's passenger numbers fell a massive 62.8% year-on-year in Sep-08 to 48,000, although it partially attributes the result to capacity cutbacks, as part of its restructuring programme.

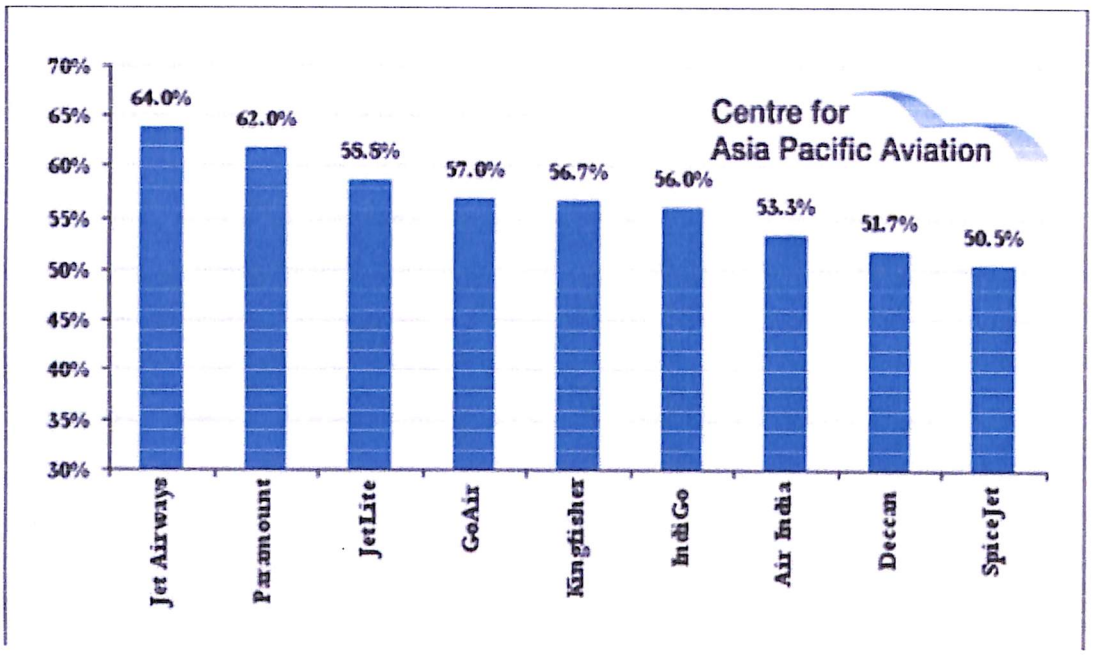
GOAIR PASSENGER NUMBERS AND PASSENGER NUMBERS GROWTH (% CHANGE YEAR-ON-YEAR): JAN-07 TO SEP-08



Source: Centre for Asia Pacific Aviation 1

GoAir's load factors meanwhile were comparatively higher than its domestic competitors at 57% (no year-on-year change disclosed).

INDIAN CARRIERS DOMESTIC PASSENGER LOAD FACTOR IN SEP 08



Source: Centre for Asia Pacific Aviation 2

This carrier is positioned between LCCs and full service carriers, and thus aims to create a new value for money product with passengers having to "pay to get more", while retaining its point-to-point operating strategy. As part of the repositioning strategy, GoAir also reportedly plans to further expand its return check-in facilities, and telephone check- in services.

It is promoting this class as the "comfort of a Business Class at the price of a full service Economy Class ticket". GoAir has initially dedicated the first three to four rows of its A320s to the new section, which will offer light snacks and other "frills", charging INR 1,750 (USD35.40) extra for the service. If successful, GoAir reportedly plans to remove further rows in the future to allow more leg room for this segment, and will consider offering full meals.

According to CEO, Edgardo Badiali, the current economic slowdown was an opportunity to attract corporate travelers, stating there was a growing trend among businesses to tighten their travel budgets and encourage middle-level executives to travel with LCCs to cut costs.

GoAir's new Go Comfort class also aims to encourage repeat business travel as one fifth of the carrier's passengers currently are repeat travellers, hence this segment offers huge potential.

THE CRISIS

In July 2008 was predicted to become the first victim of the downturn being faced by the domestic aviation industry. The carrier was considered to be facing a massive cash crunch which would eventually lead to a bailout sooner rather than later.

The Mumbai-based carrier slashed operations by half in a bid to cut losses sparked by soaring costs of fuel. It was operating a little over 700 flights a month, compared with 1,400 just some time back. It laid off nearly 160 staffers in a week.

The airline was so starved for cash that it was selling Mumbai-Delhi tickets for around Rs795 (plus taxes of Rs3,325) compared with Rs2,000 (plus tax) that other operators charge for the sector. It operates the maximum number of flights on this sector, which is the country's busiest route.

This is a typical example of what was happening all around in the LCC Airlines as a result of the hike in ATF prices as most of these airlines only employed a low price but not a low cost structure.

JetLite

Jet Airways acquired Air Sahara in April 2007 and decided to run it as a 100 per cent subsidiary under the brand name of Jetlite. At the time of merger, it was also decided that JetLite would be positioned as a value carrier between a full service airline and a low cost carrier. It will have less frills with economy class details. At the same time, frequent fliers scheme will be extended to JetLite. In order to provide its services as a value carrier, JetLite stove to cut down its costs in every possible way. Some of the strategies adopted by it were:

Fleet of same aircraft

JetLite currently operates a fleet of 24 aircraft, which includes 17 Boeing 737 series and 7 Canadian Regional Jets 200 Series.

Boeing 737 **Canadian Regional Jet 200**

Comparing these figures with the fleet of other full-service airlines

Airlines	Type of aircraft	No. of planes
Air India	Airbus A310-300	29
	Airbus A321	12
	Boeing 737	3
	Boeing 747	30

	Boeing 757	1
	Boeing 767	3
	Boeing 777	14
Jet Airways	Boeing 737-400	3
	Boeing 737-700	13
	Boeing 737-800	33
	Boeing 737-900	2
	Boeing 777-300ER	10
	Airbus A330-200	12
	ATR 72-500	14
Kingfisher Airlines	ATR 42-500	6
	ATR 72-500	27
	Airbus A319-100	3
	Airbus A320-200	26
	Airbus A321-200	8
	Airbus A330-200	5

(source: www.airfleets.net)

Since JetLite uses only 2 types of aircrafts compared to 4-5 types of aircrafts used by full-service airlines, it is able to save maintenance costs. Using similar aircrafts ensures interchangeability of crews, furnishings and spare parts, and results in major costs savings for JetLite. Moreover, bulk purchases of spares can be made which results in economies of scale. Similar types of aircraft also means reduced training requirements for the pilots as they had to only learn to operate a single type of plane which further brings down the costs.

Sweating its assets

Airlines	No. of aircrafts	No. of flights (daily)	Utilization of aircraft (Flights/Aircraft)	Average fleet age (in years)
Air India	108	-	-	11.9
Jet Airways	87	400	4.597	4.5
Kingfisher Airlines	75	218	2.906	2.2
JetLite	24	250	10.416	6.5

(source: http://www.indiainternalflights.com/ , www.airfleets.net)

Compared to other full-service airlines, JetLite draws the maximum out of its assets. Even if the utilization of aircraft by jet airways and kingfisher is discounted considering the fact that they fly international also, even then JetLite's utilization is much higher than full service airlines. This results in significant cost savings as fixed costs are incurred whether the planes are flying or not. So its better to fly more and earn revenue than keeping your aircraft idle.

Furthermore, the average fleet age of JetLite is 6.5 years. Though it does not have the youngest aircraft in the industry, still the fleet is not very old when compared to that of Air India. Having a relatively young fleet means efficient engines, which translates into fuel savings for the airlines. Since air turbine fuel (ATF) is a major cost component, having fuel efficient engines results in significant cost savings.

No frills

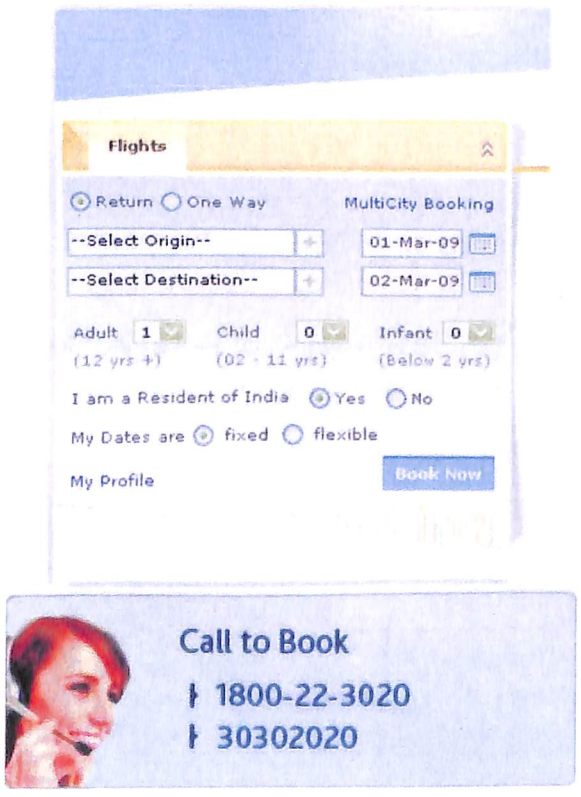
JetLite follows a no-frills policy to keep its costs to bare minimum. This means that it does not offer any complementary services offered by other full-service airlines. Complimentary services include multi-cuisine food, airport lounges, magazines, entertainment, etc.

Airlines that serve food on flight incur not only the basic cost of food but also the cost of oven, microwave, preheated food cabins and serving trolleys. Not serving food on-board minimizes these costs. Moreover, the aircraft becomes lighter as a result of offloading of heating appliances which increases the fuel efficiency of the aircraft. On an average, about 130 kg to 150 kg of the basic aircraft weight is being shed which results in a saving of 15% to 20% on operating costs annually per aircraft.

JetLite has a fixed menu of very few items which are served only when ordered by the passenger. This reduces costs associated with food, appliances, heating and serving (stewards and stewardess) thus, resulting in major costs savings.

Other special services like airport lounges, coach services, on-board entertainment, etc. are a substantial part of an airlines cost structure. Since JetLite doesn't provide any of these services, it doesn't incur any of these costs and passes its savings to the passengers in the form of low prices.

Online booking and IVR ticketing



JetLite allows you to book tickets both online and by an Interactive Voice Response (IVR) system. This eliminates the need for commissions payable to middlemen. Internet booking also obviates the need of ticketing agents and additional workers, thus cutting down the wage bill. Moreover, the paperwork associated with transactions is considerably reduced. The tickets are sent online to the email address of the customer and the customer can get a printout of the ticket himself. All this helps in bringing down the cost of transactions resulting in lower ticket prices.

Dynamic Pricing

JetLite tries to sell maximum number of tickets through dynamic pricing. The tickets are priced according to the availability and demand of tickets. In airline industry, the marginal cost of flying an additional customer is very low. Thus, JetLite tries to maximize its revenue by selling the maximum number of tickets possible. It earns its revenues not only from the sale of tickets but also from the sale of food items and any other service for which it charges over and above the price of the ticket.

Advertising revenues

JetLite is looking forward to enhancing its ancillary revenues by opening itself up to advertising. The airline plans to offer the fuselage, the exterior of the aircraft body, and in-flight space for advertising. It is expected to generate revenues worth Rs 50-60 lakh a month from the move.

COMPARATIVE ANALYSIS

REPOSITIONING TO "VALUE CARRIER" AIRLINES

Owing to the rising ATF prices and increasing losses and massive cash crunches, intense competition and weak growth in price-sensitive demand India's domestic LCC market appears to be shrinking. Three main players have employed the —value carrierǁ model which give higher benefits such as priority check ins, inflight F&Bs, Better leg space, Comfort seating,Priority check ins,Rescheduling of travel plans at no extra cost etc. the priced is placed between low cost airlines and the high value ones.

The players that adopted this strategy are:

- 'Kingfisher Red' (with former LCC Deccan's recent absorption and rebranding by parent Kingfisher, it targets higher yielding passengers).
- JetLite (the former Air Sahara) has also been re-branded as a value carrier.
- GoAir with its newly launched GoComfort carrier

Pure domestic LCC models left remaining are **SpiceJet** and **IndiGo**

It is evident from the above table that the airlines flowing the point to point model tend to employ 1 or maximum two types of aircrafts in its fleet in order to save costs, but those following a hub and spoke utilize more in order to use smaller aircrafts for the short haul distances and the large ones for long haul distances.

MODELS ADOPTED

AIRLINE	MODEL ADOPTED
JetLite	Point to point between metros, hub-n-spoke for non-metros to metros and vice-versa or between non-metros
GoAir	Hub/Point-to-point model
SpiceJet	Point-to-point, and regional hub-n-spoke
Indigo	Point-to-point model
AirDeccan/Kingfisher Red	Hub-n-spoke model

The airlines connecting only between metros and tier-2 cities follow the point-to-point model in order to increase frequency and concentrate on specific hubs in order to optimize costs, and the ones connecting metros to non-metros follow the hub-n-spoke model in order to connect all non-metros through one major hub. But there are still others following a mixture of the two , i.e. they follow the point-to-point model for metros and the hub-n-spoke in regional areas. This helps the airlines operate between multiple locations and follow different strategies for different types of places in order to save costs.

PRESENT SCENARIO

Low cost v/s low fare

In India, the airlines that offer low fares are in reality not low cost operations. They are Low cost carriers (LCCs) in name only. Among the LCCs in India, Spice Jet has the lowest unit cost at 6.2 cents per ASK, which is comparable with Southwest, Easy Jet, and Jet Blue. But this is more than twice that of the best performer, Air Asia with unit cost of slightly over 3 cents per ASK. There were operating losses for Air Deccan in 2007-08.

Typically, LCCs provide point-to-point service avoiding connecting flights and baggage transfers while FSCs base their operation on a hub-and-spoke system. Air Deccan has deviated from the LCC business model in the sense that it has a hub-and-spoke type operation to connect metros with smaller towns. It also provides point-to-point service between metros and large cities. Industry analysts have pointed out that this has increased the costs for Air Deccan.

There are serious doubts about whether LCCs (as we know them elsewhere in the world) exist in India. According to Bill Franke, the Managing Director of leading airline investment firm Indigo Partners, —There is not a single airline in India that operates a true low cost structure, only low-fare and low-margin.

Is the low-cost carriers" business model in India sustainable?

Low-fare airlines outside India have many features in common – a single type of aircraft to facilitate pilot training, maintenance and aircraft utilization; no free food service to save costs and reduce turnaround times; no inter-line transfer of baggage; direct selling to avoid commissions to travel agents, etc.

These features are easy to replicate and are an integral part of the low cost airlines in India. As a result of their replicability, they do not, by themselves, offer a sustainable competitive advantage.

The *dynamics* of a low-cost airline are equally important. Typically, a successful low-fare airline chooses routes that are not already operated by other low-fare airlines. It increases demand for air traffic by cutting fares, and provides frequent services to saturate the route. In contrast, head-on competition between two low-fare carriers on the same route often results in a price war that benefits consumers but is not profitable to the airlines themselves.

The low cost airlines in India are not targeting distinctive routes. Instead, they seem to be moving towards creating huge capacities on the trunk routes. Since shorthaul services impose other cost disadvantages on an airline, quick turnarounds to achieve high utilization become critical. Clearly, on-time passage is an important value proposition for this type of service and delays are extremely annoying to passengers.

Running a low-fare airline is a major managerial challenge. In addition, the government will need to improve airport infrastructure quickly if this model is to succeed. The increase in air traffic is not matched with the increase in the infrastructure at the airports. The airlines prefer to halt and ply between only metros and airports which have sufficient landing and parking place, this leads to long halts and waiting of these planes at metros and also traffic congestion and delays besides loss of precious air fuel.

In India, air fuel and not salaries & wages constitute the largest share in expenses of airlines as the airlines have to procure their Air fuel from oil companies. The under-developed commodity hedging market also puts a stumbling block on these companies to hedge against fluctuating prices of air fuel.

The cost of procuring new fleet also needs consideration because; they should be able to have at least 80% occupancy of seats to be viable in long run. Now if most of the flights operate on the popular routes chosen due to above reasons, there would surely be a saturation of market sooner or later. Therefore, these airlines must think of exploring low-cost routes, less time taking routes, rather than hauling on the same popular routes, if they wish to remain viable in long run. For example the north-east region of our country completely remains outside the gamut of competition from these LCC's.

The requirement for trained commanders to operate these flights also is another issue that needs urgent attention. A severe demand supply gap is emerging resulting in price hike by these commanders; this may also lead to increasing cost and defeating the entire spirit of operating a LCC.

Future Outlook

Almost all the airlines in India are facing financial difficulties. There are couple of factors that account for this. One factor is the inability of the airlines to reduce costs, and the other is the irrational pricing that set in after the advent of LCCs.

They have chased market share, i.e., revenue maximization and forced the incumbents to match their low prices. They have been successful in taking the market share from the Full Service Carriers (FSCs).

While revenue maximization may seem like a good short term strategy to enter the market, sooner or later, the LCCs have to be become profitable. These depressing financial conditions can lead only to two types of outcomes for the airlines—either some of them go bust in a market shake-out or they merge/get acquired by other airlines or business groups. 2007 became a landmark year in the industry because of the major consolidations that took place during the year.

The airlines' plans to expand capacity and replace ageing fleet aggressively should enable them to meet this growing demand more efficiently. But in the near term, they have to face significant challenges such as:

- Realizing the benefits of the consolidations.
- Realigning their competitive strategies to become profitable.
- Pursuing aggressive cost reduction.
- The availability of capital.
- Constraints due to poor infrastructure for aviation in India.

New Strategies

According to a survey conducted by Center for Asia Pacific Aviation (CAPA), 67% of Full Service Carrier (FSC) passengers and 51% of Low Cost Carrier (LCC), passengers would still have traveled by air if the fare had been double and, 57.5% of FSC passengers would fly with an FSC rather than an LCC even if the trip was personal and self-financed.

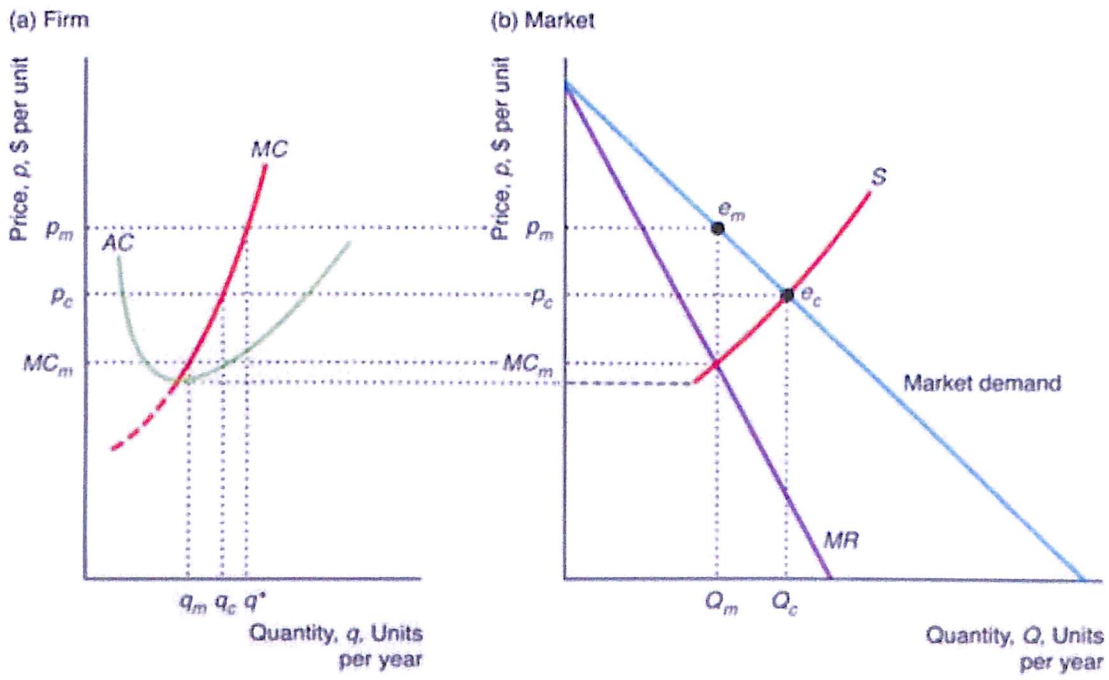
Another strategic change will be in the business models. Jet Airways is now concentrating on expanding its international operations targeting passengers of Indian origin who travel to India mainly from U.S., U.K., Canada, European countries, and South Africa. It has established a hub in Brussels, and in August 2007 inaugurated flights from India to U.S. This strategy helps Jet Airways escape the brutal competition in the domestic sector. It hopes to generate more than half of its revenues in 2009 from the more lucrative international flights. Its only Indian competitor for such long haul flights would be Air India, which it can out-compete due to Jet's superior service advantage.

According to Indian Government Policy, private carriers are not allowed to have overseas operations unless they have been in domestic business for at least five years. Kingfisher and Spice Jet have lobbied for the waiting period to be changed to three years, but the government is likely to stand firm on its current policy.

An interesting business model being tried out is long-haul low cost carrier. Air India and Jet Lite are flying international routes using this model. This model is different from and more complicated than the short-haul LCC model. For instance, passengers are willing to pay for more comforts during long flights. Airlines have to serve food and maintain a larger crew. It is difficult to achieve the same level of cost advantage as short-haul LCCs.

There are many opportunities for these LCC's. but challenges are no little. Those problems must be resolved before further expansion else it may spell doom due to severe dissatisfaction among the customers and the airlines may find only new demand and not repeat demand. It is not new among foreign low-cost carriers that they have either merged or sold off their business due to long-run un-sustainability.

Indian Aviation Market: A differentiated Oligopoly

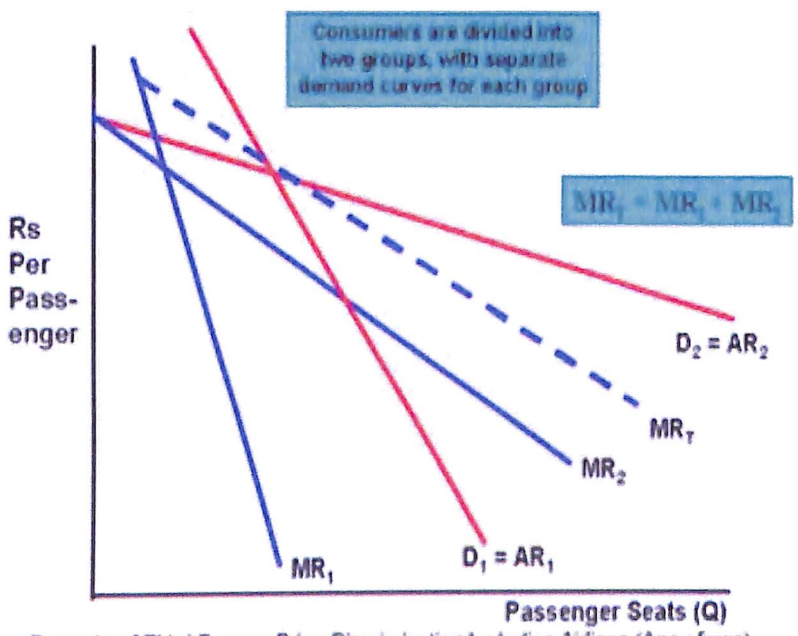


Each seller in an imperfectly competitive market faces a negatively sloped demand curve for his product, permitting him some control of the price of his product. In an oligopoly, a few firms produce the same product, while in monopolistic competition, many firms produce differentiated but similar products. In a differentiated oligopoly, a few firms produce products different enough for each firm to have its own downward sloping demand curve. As with a perfectly competitive firm or a monopoly, the differentiated oligopoly firm produces at a profit maximizing level of output where marginal cost equals marginal revenue. The firm finds the price it will charge customers at the profit maximizing level of

output (Qm) from the demand curve, and sets price to Pm. As we can see, the firm is earning economic profits since price exceeds average total cost at the profit maximizing level of output.

Pricing Mechanisms in the Aviation Industry

Price and quantity are determined by the interaction of demand and supply in the market. However, given the large number of buyers, firms can decide prices at which they will sell tickets. In fact, in the airlines sector, firms go in for third degree price discrimination and segment the market, charging a higher price to the market with a relatively inelastic demand (such as fares between business and economy class travelers, or between emergency travel and leisure travel by providing apex fares). The low cost airlines follow this different pricing strategy. Customers booking early with carriers such as Air Deccan will normally find much lower prices if they are prepared to commit themselves to a flight by booking early, on the justification that consumer's demand for a particular flight becomes more inelastic the nearer to the time of the service.



Example of Third Degree Price Discrimination by Indian Airlines (Apex fares)

The term __revenue management" is commonly used to describe most aspects of airlines' pricing and seat-inventory control decisions; but in reality, revenue managers primarily practice seat-inventory control. Formally, revenue management describes a process of setting fares for each route (origin and destination pair) and each set of restrictions (nonstop, time-of-day, day-of-week, refundable, advance purchase, first class or coach, and Saturday-night stay over) and limiting the number of seats available at each fare. In the language of economics, revenue management increases airlines' profits in three ways .

- Implements peak-load pricing.

- Implements third-degree price discrimination. That is, fare restrictions screen customers and segment them by their sensitivity to price and potentially by their demand uncertainty. For instance, Indian Airlines apex fares (for booking one week or three weeks in advance).

- Implements an inventory control system for coping with uncertain demand.

The JET-KINGFISHER Alliance

India's two largest private airlines Jet Airways and Kingfisher Airlines joined hands and announced an alliance for sharing of their network and resources to meet the challenge of aviation downturn. Announcing the alliance, both Naresh Goyal of Jet and Vijay Mallya of Kingfisher said the coming together was in tune with the global practice of reducing costs and clarified that there was no equity involvement. —This is a long-term alliance on a sustainable basis and not a matter of convenience, According to Mr. Naresh Goyal.

The alliance would bring the two airlines, which account for nearly 60 per cent of market share, to work together on seven fronts, including route and code sharing as also sharing of crew, a move that would help them cut costs. The alliance, announced in a late night press conference, will involve code-sharing on domestic and international flights, an interline agreement, joint fuel management, common ground-handling services and cross-selling flights through the global ticketing system. The two have also agreed to cross-utilize crew on similar aircraft types and use common training facilities. Passengers can also use frequent flyer programs by flying in either of the airlines. The two companies, however, clarified that there will be no equity investment in each other's company.

A formal merger of the two airlines would not have been possible because the country's competition laws mandate that airline companies cannot have a market share of over 40 per cent after they merge. Jet Airways shares jumped by 10 per cent and Kingfisher 28 per cent today, ahead of news of the impending alliance. —Such alliances are taking place all over the globe such as the one with United with British Airways. This is the first such alliance in India,‖ said Naresh Goyal, chairman of Jet Airways. —It is not a cartel but essentially meant to save costs as airlines are losing money, he adds.

The Industry Analytics:

Aviation Industry Report 41

This alliance will result in major cost saving, improve efficiencies through network synergies and cross-selling. If the airlines save money they will pass it on to consumers, said Kingfisher Airlines Chairman Vijay Mallya. Both airlines are in the red. Kingfisher Airlines made a loss of over Rs 1,000 crore and Jet Airways Rs 806 crore in 2007-8. The two financially strained companies have also been looking at raising over $1.2 billion (Jet for $800 million and Kingfisher $400 million) to finance expansion plans but have found it difficult to do so, especially after the US financial meltdown.

Jet, for instance, postponed its rights issue and has been looking for strategic investors instead. Mallya recently said he would not mind divesting 26 per cent to foreign airline companies if the government allowed it.

Both airlines, which have a combined workforce of around 19,000 (of which Jet has 12,000),have trimmed staff by over 2,000 in the last few months.

Jet Airways, which bought Air Sahara (renamed JetLite) in 2007, reduced staff strength by 1,200 and followed it up with a voluntary separation scheme for another 750 employees. Kingfisher, which bought Air Deccan in December 2007, reduced its staff by only 350 recently.

The two airlines have had a combined fleet of over 189 aircraft, making it much bigger than state-owned Air India (the entity formed after the merger of Air-India and Indian Airlines) with 149 planes. The combine will fly 927 domestic flights and 82 international flights a day.

FINANCIAL ANALYSIS & COMPARISON OF AVIATION INDUSTRY

The following ratios present a comparison of major Indian players in the airline industry. This presents a peek into the financial performance of the companies over a period of 5 years from 2002-2006. It is of utmost importance while comparing the liquidity, profitability, operating efficiency of the companies. The peculiar thing about the comparison is that it compares both premium airlines as well as flow cost airlines. It presents an overall view of the major players in the industry.

DEBT EQUITY RATIO

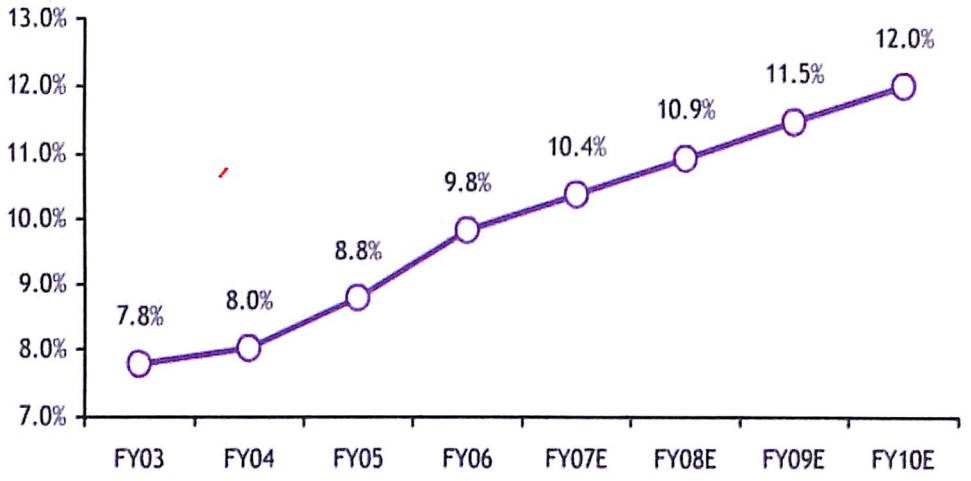
PARTICULARS	2006	2005	2004	2003	2002
INDIAN	0.00	0.00	0.00	0.00	0.00
JET	2.02	3.47	72.01	28.54	12.65
KINGFISHER	3.20	11.50	2.38	1.41	0.59
SPICEJET	0.00	0.00	0.00	0.00	0.00
GO AIR	-	0.01	0.00	-	-

DEBT EQUITY RATIO

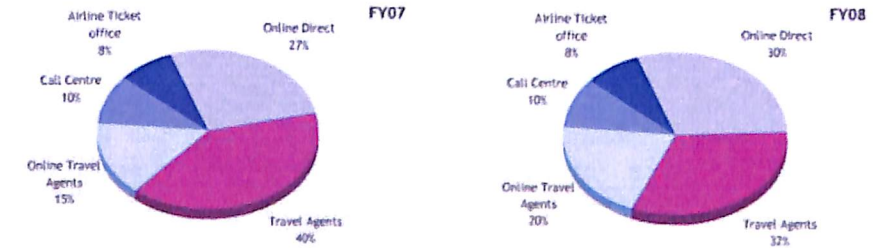
PARTICULARS	2006	2005	2004	2003	2002
INDIAN	0.00	0.00	0.00	0.00	0.00
JET	2.02	3.47	72.01	28.54	12.65
KINGFISHER	3.20	11.50	2.38	1.41	0.59
SPICEJET	0.00	0.00	0.00	0.00	0.00
GO AIR	-	0.01	0.00	-	-

This shows the debt as a ratio to equity share capital. It should be on the lower end to be healthy as it represents lower debt used by the company. From the above table it can be seen that Indian Airlines doesn't have debt that is why all throughout its ratio is nil. For jet it is seen to healthy as it shot up in 2003 but it has considerably come down to a small amount now. Kingfisher's ratio had increased to a high figure from 2002 to 2005 but it has come down again in 2006. Spicejet does not have debt equity ratio as shown in the table. Go air has a very negligible ratio which a very healthy sign for the company. It is able to fund itself from capital other that debt.

Airline passenger revenue as percentage of PFCE



Increasing share of e-ticketing



Source: Industry Data, PL Research

LONG TERM DEBT EQUITY RATIO

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	0.00	0.00	0.00	0.00	0.00
JET	1.87	3.47	72.01	28.54	12.36
KINGFISHER	1.27	1.59	1.69	1.56	1.90
SPICEJET	0.00	0.00	0.00	0.00	0.50
GO AIR	-	0.01	0.00	-	-

The long term debt equity ratio is again not present for Indian Airlines.

Jet Airways has a ratio almost similar ratio to debt equity ratio. For kingfisher the ratio is on the lower end which is a healthy sign for it. For Spicejet the ratio has gone down to 0. For Go Air the ratio is same as the previous ratio.

CURRENT RATIO

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	0.59	0.49	0.47	0.49	0.52
JET	1.64	1.39	1.45	1.57	1.32
KINGFISHER	1.27	1.59	1.69	1.56	1.90
SPICEJET	0.86	0.85	0.82	0.73	0.64
GO AIR	-	2.09	277.00	-	-

Current ratio is the ratio between the current assets & liabilities of the company. It shows how best the cash of the company is utilized. A current ratio of 2:1 is regarded as healthy but it depends from firm to firm & industry to industry. From the above comparison it can be seen that Indian airlines has ratio less than 1 all throughout. This is not a good sign as it cannot even finance its short term liabilities & it poses a question on the firm's liquidity.

For Jet it is better as it is more than 1 time so it can recover its current liabilities easily. Again for Spicejet it is on the lower end. For Go Air it was very high in 2004 but has gone down considerably in 2005.

FIXED ASSETS TURNOVER

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	0.59	0.49	0.47	0.49	0.52
JET	1.24	0.89	0.75	0.78	0.99
KINGFISHER	6.54	7.42	3.29	3.47	9.09
SPICEJET	109.28	0.94	0.00	0.00	0.00
GO AIR	-	0.00	0.00	-	-

The fixed assets turnover ratio shows how efficiently assets have been utilized to generate sales or turnover for the business. The higher it is the better. For Indian Airlines & Jet Airways it is showing the wrong sign. On the other hand for Kingfisher it is higher which is good for the company. In 2oo5 it was optimal for Spicejet however it has increased significantly to a very high amount in latest year 2006.

INVENTORY TURNOVER RATIO

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	10.40	9.90	8.72	7.73	6.80
JET	15.36	12.76	10.02	8.94	9.44
KINGFISHER	21.12	12.64	7.95	7.71	12.03
SPICEJET	109.28	0.94	0.00	0.00	0.00
GO AIR	-	0.00	0.00	-	-

The inventory turnover should be high in order for higher sales. From the above table we can see that it is on higher end for Indian Airlines, Jet Airways, Kingfisher Airlines which is good. Spicejet shows too high a ratio.

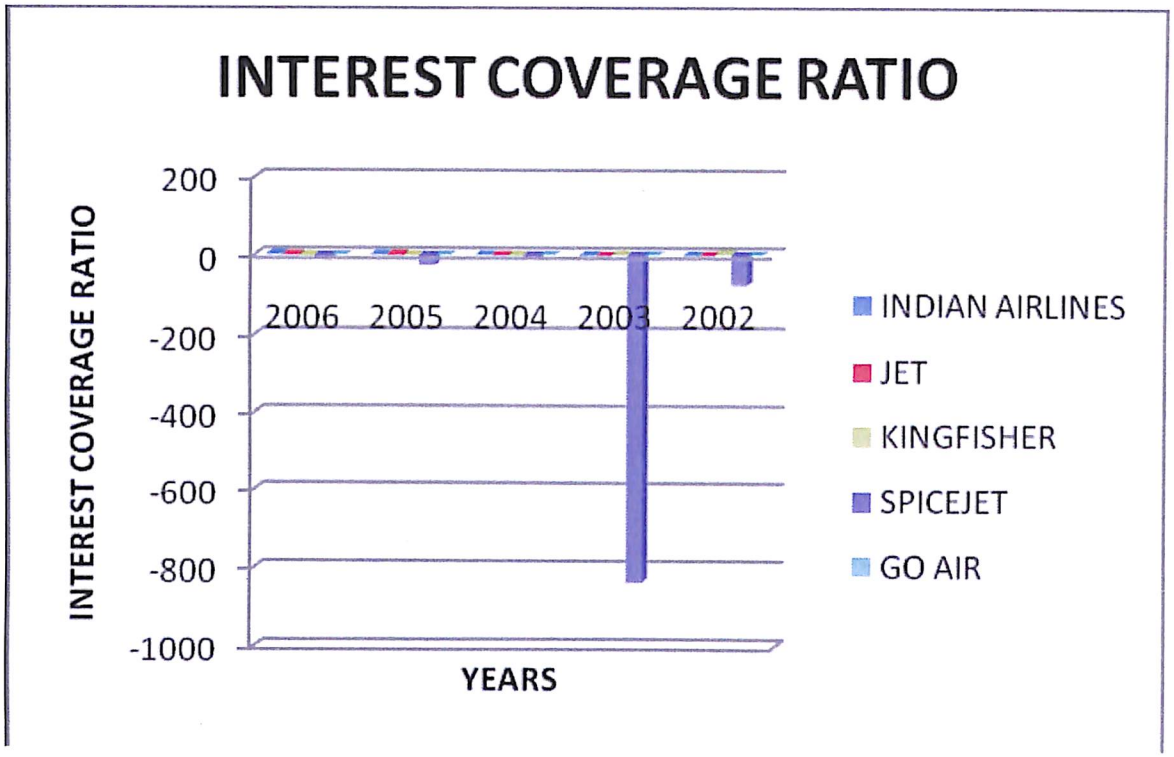
DEBTORS TURNOVER RATIO

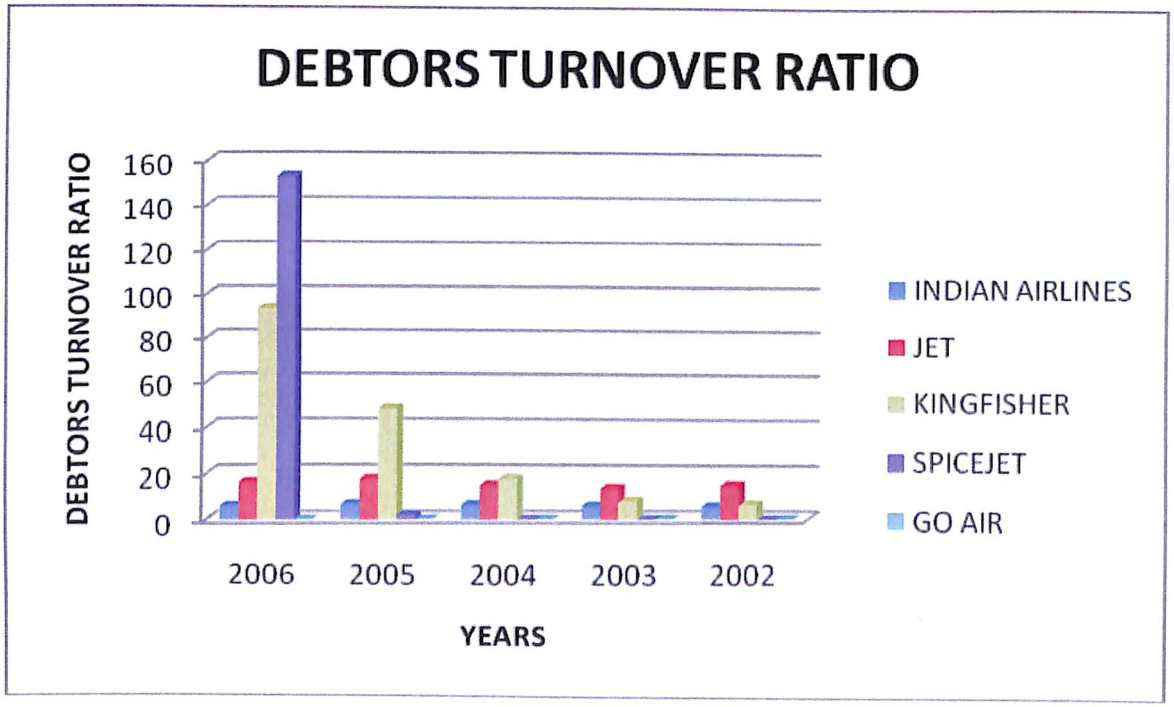
PARTICULARS	2006	2005	2004	2003	2002
INDIAN	6.19	6.81	6.40	5.79	5.64
JET	16.53	17.82	15.07	13.71	15.02
KINGFISHER	93.58	48.23	17.53	7.87	6.51
SPICEJET	153.16	1.86	0.00	0.00	0.00
GO AIR	-	0.00	0.00	-	-

The above shows the number of days in which debts are recoverable. Indian Airlines & Jet Airways produce a reasonable figure for the same. However, for Kingfisher & Spicejet it is very high. It can be brought down to reasonable figures by checking the cause of it being so high.

INTEREST COVERAGE RATIO

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	3.36	2.93	1.67	-0.84	-1.75
JET	2.65	3.29	1.46	0.04	0.92
KINGFISHER	-11.12	-1.49	-1.96	1.38	3.94
SPICEJET	-12.90	-24.73	-9.69	-836	-75.88
GO AIR	-	0.00	0.00	-	-





It shows the number of times the earnings can recover the interest obligation. Indian Airlines has shown an increasing trend in the figure which is a good sign. Jet showed an increasing trend till 2005 but it has dipped in 2006. For Kingfisher & Spicejet it is a matter of concern as the figures are accompanied by a negative sign. This shows that profits are not enough to recover expenses.

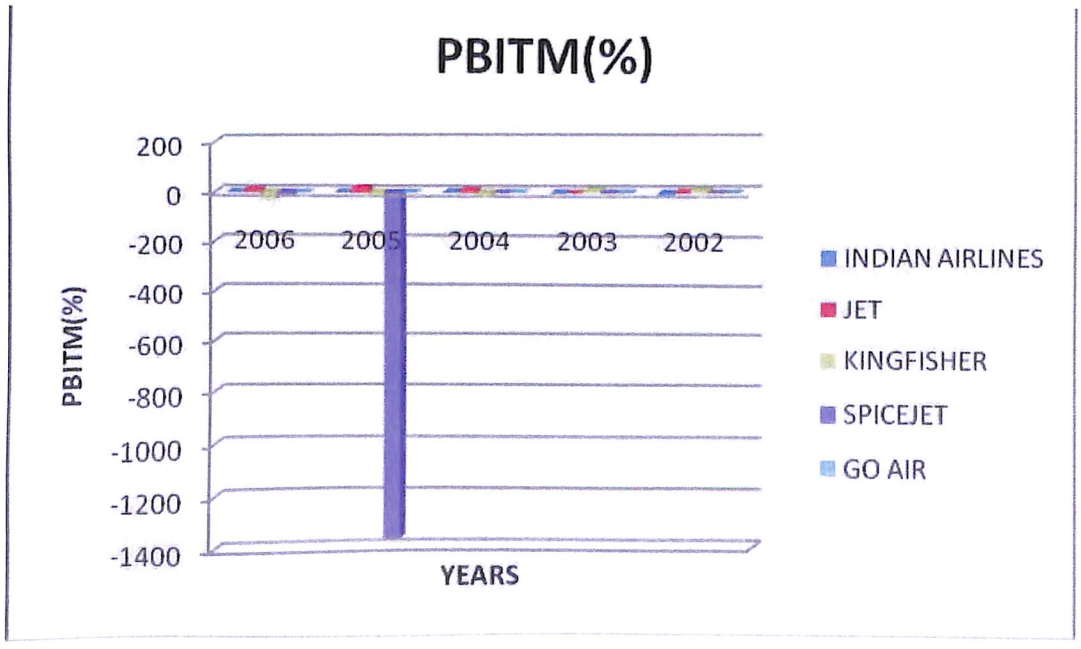
PROFIT BEFORE INTEREST, DIVIDEND & TAX MARGIN RATIO

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	6.93	7.66	9.16	5.56	2.18
JET	18.48	29.80	27.16	16.82	20.04
KINGFISHER	-27.66	-3.98	-10.25	10.34	11.05
SPICEJET	-10.84	-1339.80	0.00	0.00	0.00
GO AIR	-	0.00	0.00	-	-

The figures show fluctuation for airlines. No one trend can be seen in either increasing or decreasing end. For Indian the power & fuel costs has gone up. This is one of the major reasons. For Jet it is an increase in power & fuel costs accompanied by employee, other manufacturing & selling & distribution expenses. Kingfisher & Spicejet again show disturbing figures with negative signs. The culprit for Spicejet is same as that of Jet.

PROFIT BEFORE INTEREST & TAX MARGIN RATIO

The ratio for Indian Airlines has improved considerably from 2002 but has fallen again in 2006.



PARTICULARS	2006	2005	2004	2003	2002
INDIAN	1.56	2.04	2.57	-2.19	-5.82
JET	11.31	19.27	12.22	0.36	6.23
KINGFISHER	-28.73	-4.98	-12.03	8.93	10.49
SPICEJET	-12.78	-1365.67	0.00	0.00	0.00
GO AIR	-	0.00	0.00	-	-

For Jet it had been increasing from 2003 but is low in the latest year of comparison. Kingfisher & Spicejet are not healthy in this ratio either.

PROFIT BEFORE DIVIDEND & TAX MARGIN RATIO

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	6.47	6.97	7.62	2.96	-1.15
JET	14.22	23.95	18.78	7.92	13.28
KINGFISHER	-30.24	-7.32	-16.40	3.84	8.39
SPICEJET	-11.83	-1395.02	0.00	0.00	0.00
GO AIR	-	0.00	0.00	-	-

The ratio has been favorable for Indian Airlines over the 5 year period comparison. So is For Jet though it has dipped from 2005 to 2006 by a considerable amount. Kingfisher & Spicejet have taken a beating in this ratio as well.

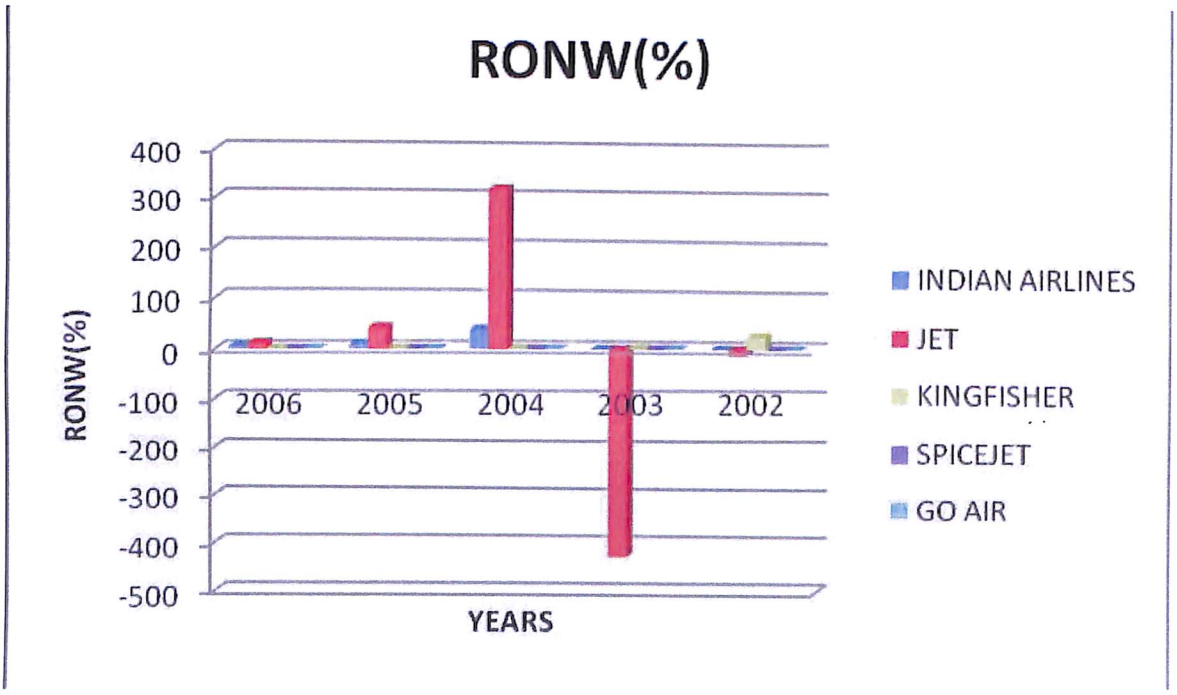
ROCE (%)

This ratio shows the return or earnings on the total capital employed as a sum total of equity, preference share capital & debt. The ratio has improved for Indian with a little fluctuation. Same can be said for jet° but it has dropped to half from 2005 to 2006. For Kingfisher it has fallen from a healthy amount.

RONW (%)

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	5.91	9.75	39.01	0.00	0.00
JET	12.60	42.87	320.74	-427.96	-12.42
KINGFISHER	0.00	0.00	0.00	1.34	26.28
SPICEJET	0.00	0.00	0.00	0.00	0.00
GO AIR	-	0.00	0.00	-	-

This shows the earnings to equity shareholders as net worth is sum of equity share capital & reserves & surplus. It has increased in 2004 for Indian but dwindled in 2005 & 2006. Similarly it was very high for Jet in 2004 but it is very low in the last year of comparison. For Spicejet & Go Air the figures are not good.



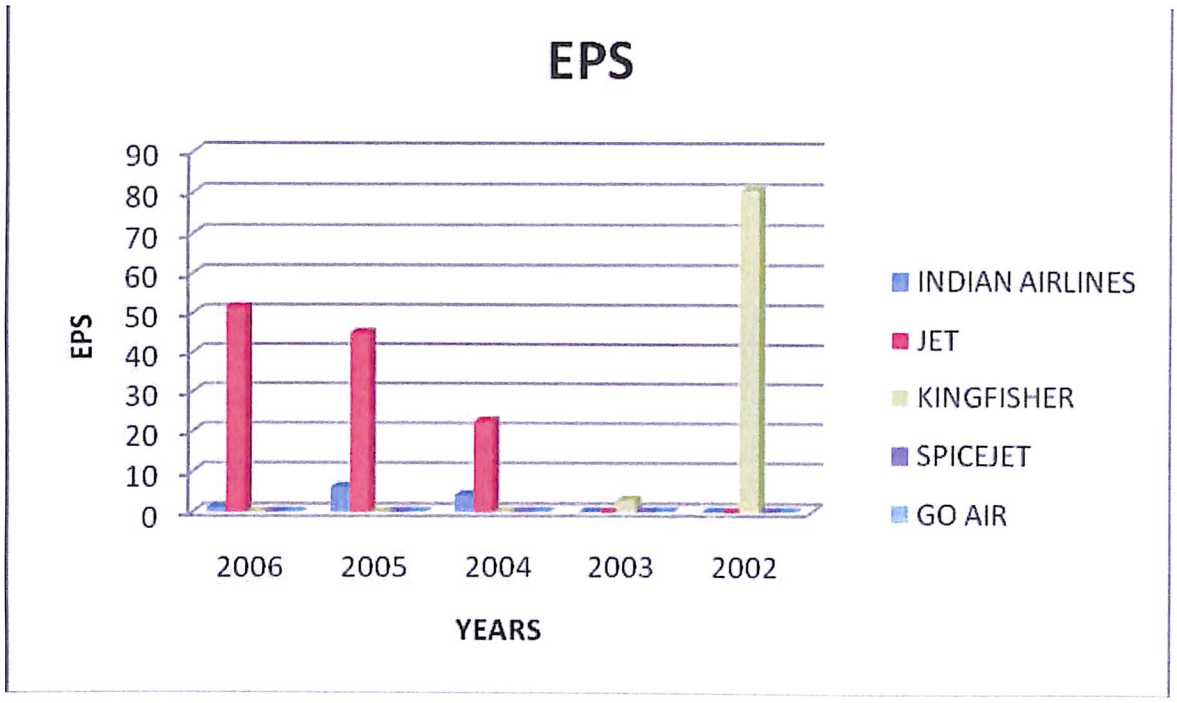
PARTICULARS	2009	2008	2007	2006	2005
Air india	6001.01	5766.12	5333.12	4649.84	4631.09
jet	5769.12	5343.08	4338.05	34447.1	3219.6
Kingfisher	5021.4	4936.7	4334.3	4109.9	2569.3
Spice jet	4213.1	3926.3	3334.1	2556.1	1964.1
Go air	1256.6	960.69	453.6	00.00	00.00

The above table shows a comparison for the sales of the airlines over a period of 5 years. For Indian Airlines the figures have increased significantly from Rs. 3769.91 crores in 2002 to Rs. 5766.01 crores in 2006. Similarly for Jet it was Rs. 2526.29 in 2002 whereas it has increased To Rs. 5666.55 crores in 2006. Kingfisher has shown a tremendous increase from Rs. 19.55 crores to Rs. 1236.4 crores. Spicejet a relatively new player in the low cost segment has come up to Rs. 419.65 crores in 2006.

EARNINGS PER SHARE

PARTICULARS	2006	2005	2004	2003	2002
INDIAN	1.15	6.12	4.12	0.00	0.00
JET	51.52	44.99	22.63	0.00	0.00
KINGFISHER	0.00	0.00	0.00	2.88	80.50
SPICEJET	0.00	0.00	0.00	0.00	0.00
GO AIR	-	0.00	0.00	-	-

The ratio has gone down for Indian in comparison to 2005. For Jet it has shown an increase a good sign for the company. It would satisfy the shareholders to a great extent. For Kingfisher it has dwindled. For Spicejet & Go Air it is nil showing they didn't pay shareholders anything.



LEASING VERSUS BUYING OF AIRCRAFTS

Many factors influence the decision process but basically these can be broken down into three main areas: AIRCRAFT USAGE

If the frequency of flights is infrequent and the number of hours per month low for a flight then rent, charter or use the airlines (if for personal usage). Seasonal variations in aircraft capacity can obviously cause issues, either not enough planes in summer or too many planes in winter. One way to overcome the shortfall in aircraft during the peak seasons is to utilize an ACMI lease agreement for the extra aircraft. If the airline has too many aircraft, either owned or dry leased, then they can offer their surplus aircraft in their low season to another airline that is in peak season.

ORGANIZATIONAL STRUCTURE

If the organization does not have, or access to, or does not intend to obtain an AOC then you cannot lease an aircraft for a commercial operation. As previously mentioned, in this situation flights can only be operated under a public charter contract. A third party airline or aircraft operator would perform the flights under their AOC and be responsible for all aspects of the flight.

FINANCIAL STATUS

One of the major decisions while buying or leasing an aircraft is the cash or financial status of the company. A major decision an aircraft Lessor makes when placing an aircraft leasing is to evaluate the risk factor! The two main types of leases (ACMI and Dry lease) have different risk factors. The owner/ operator of an ACMI agreement retains control of the aircraft, and therefore, has more security over their asset than does the Lessor in a dry lease agreement as the Lessee has control of the aircraft throughout the dry lease period.

Industry Analytics: Aviation Industry Report 58

Cost of purchasing an aircraft can be restrictive to an airline that wants to start or expand it's fleet, leasing allows the cost to be spread across several years. At the lease term the Lessee can either renew the lease or returned the aircraft to the lessor, to be replaced with more modern aircraft.

ACQUISITION CONSIDERATIONS

Agencies should consider whether to lease or purchase equipment based on a case-by-case evaluation of comparative costs and other factors. The following factors are the minimum that should be considered:

- Length of equipment lease and extent of use
- Financial & operating advantages of alternative types/makes of equipment
- Cumulative rental payments for estimated period of use
- Net purchase price
- Transportation and installation costs
- Maintenance and other service costs
- Potential obsolescence of equipment because of imminent technological improvements.
- The following additional factors should be considered, as appropriate, depending on the type, cost, complexity, and estimated period of use of the equipment:
- Availability of purchase options

Industry Analytics: Aviation Industry Report 59

- Potential use by other agencies after its use by the acquiring agency is ended.
- Disposition costs
- Trade-in or salvage value
- Availability of servicing especially for highly complex equipment; e.g., can the equipment be serviced by the Government or other sources if it is purchased?
- Imputed Interest (Assumed or estimated interest when the actual interest amount is unknown/not stated)
- For a big company which is not cash strapped buying is not a problem. However, for small companies who are new entrants into the business or low cost carriers it is advisable to go in for leasing if the routes are less & frequency is low.

Industry Analytics: Aviation Industry Report 60

INDIAN CIVIL AVIATION POLICY

- Private sector is allowed to operate scheduled and non-scheduled services.
- Operator should be a citizen of India or a company or a body corporate which is registered in India and whose Principal place of business is in India.
- Chairman and at least two –thirds of its Directors are Indian citizens.
- Substantial ownership and effective control are vested in Indian nationals.
- The scheduled operators are required to follow route dispersal guidelines.
- An administrative mechanism that was aimed at extending air transport services to regions/ routes that is not necessarily commercially viable.
- Foreign equity participation up to 49 percent and investment by Non-Resident Indians (N.R.I), Overseas Corporate Bodies (OCBs) up to 100% is allowed. The representation of the foreign investing institution/entity on the Board of Directors of the company shall not exceed one-third of the total.
- Foreign airlines are not permitted to pick up equity. Foreign financial institutions and other entities who seek to hold equity in the domestic air transport sector shall not have foreign airlines as their shareholders
- Open skies policy for cargo services.

- As regards safety and security arrangements, the operators must ensure compliance with relevant regulatory requirements stipulated respectively by the Director General of Civil Aviation (DGCA) and the Bureau of Civil Aviation Security(BCAS).

CONTRIBUTION TO GDP

The Role of Aviation Industry in India GDP in the past few years has been phenomenal in all respects. The Aviation Industry in India is the most rapidly growing aviation sector of the world. With the rise in the economy of the country and followed by the liberalization in the aviation sector, the Aviation Industry in India went through a complete transformation in the recent period.

Growth Factors

- The growth in the Indian economy has increased the Gross Domestic Product above 8% and this high growth rate will be sustained for a good number of years
- Air traffic has grown enormously and expected to have a growth which would be above 25% in the travel segment.
- In the present scenario around 12 domestic airlines and above 60 international airlines are operating in India.
- With the growth in the economy and stability of the country India has become one of the preferred locations for the trade and commerce activities
- The growth of airlines traffic in Aviation Industry in India is almost four times above international average.
- Aviation Industry in India have placed the biggest order for aircrafts globally.
- Aviation Industry in India holds around 69% of the total share of the airlines traffic in the region of South Asia.

Future Challenges

- Initializing privatization in the airport activities.
- Modernization of the airlines fleet to handle the pressure of competition in the aviation industry.

Industry Analytics: Aviation Industry Report 62

- Rapid expansion plans for the major airports for the increased flow of air traffic.
- Immense development for the growing Regional Airports.

FDI Policy

- The Reserve Bank of India (RBI) announced that foreign institutional investors might have shareholdings more than the limited 49% in the domestic sector.
- Airports.
- Foreign equity up to 100% is allowed by the means of automatic approvals pertaining to establishment of Greenfield airports.
- Foreign equity up to 74% is allowed by the means of automatic approvals pertaining to the existing airports.
- Foreign equity up to 100% is allowed by the means of special permission from foreign investment Promotion Board, Ministry of Finance, pertaining to the existing airports.

Air Transport Services

- Up to 49% of foreign equity is allowed by the means of automatic approvals pertaining to the domestic air transport services.

- Up to 100% of NRI investment is allowed by the means of automatic approvals pertaining to the domestic air transport services

SWOT ANALYSIS OF THE AVIATION INDUSTRY

Strengths:

- Growing tourism: Due to growth in tourism, there has been an increase in number of the international and domestic passengers. The estimated growth of domestic passenger segment is at 50% per annum and growth for international passenger segment is 25%.

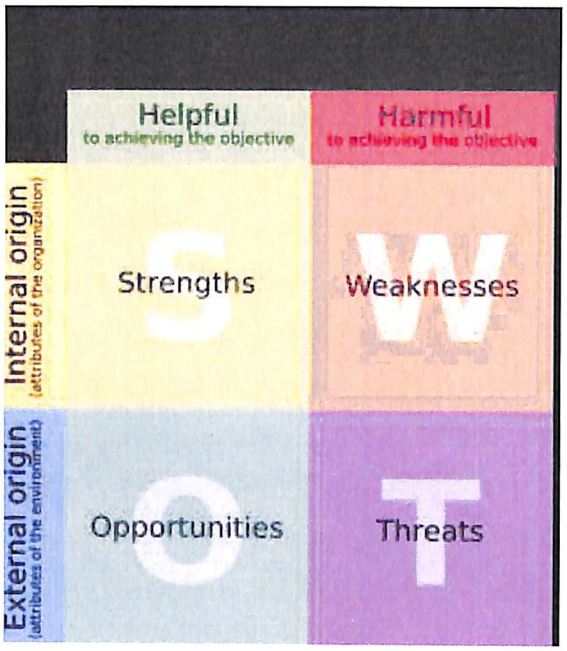
- Rising income levels: Due to the rise in income levels, the disposable income is also higher which are expected to enhance the number of flyers.

Weaknesses:

- Under penetrated Market : The total passenger traffic was only 50 million as on 31st Dec 2005 amounting to only 0.05 trips per annum as compared to developed nations like United States have 2.02 trips per annum.

- Untapped Air Cargo Market: Air cargo market has not yet been fully taped in the Indian markets and is expected that in the coming years large number of players will have dedicated fleets.

- Infrastructural constraints: The infrastructure development has not kept pace with the growth in aviation services sector leading to a bottleneck. Huge investment requirement for physical infrastructure for airports.



Opportunities:

- Expecting investments: investment of about US $30 billion will be made.
- Expected Market Size: Average growth of aviation sector is about 25%-30% and the expected market size is projected to grow up to 100 million by 2010.

Threats :

- Shortage of trained Pilots: There is a shortage of trained pilots, co-pilots and ground staff which is severely limiting growth prospects.
- Shortage of Airports: There is a shortage of airport facilities, parking bays,air traffic control facilities and takeoff and landing slots.
- High prices: Though enough number of low cost carriers are already existing in the industry, majority of the population is still not able to fly to other destinations.

IMPACT OF AIR TURBINE FUEL (A.T.F) PRICES ON INDIAN AVIATION INDUSTRY:

Aviation turbine fuel, as is obvious from its name, is used for powering jet and turbo-prop engine aircraft. This kerosene type fuel was chosen due to its excellent combination of properties. Notably, in India, the kerosene market is divided in three segments namely kerosene for public distribution system (PDS), industrial kerosene and aviation turbine fuel (ATF). According to industry estimates, India produces 78,05,000 tonnes ATF annually and exports 36,62,000 tonnes.

With a booming airline industry in India and surge in air traffic, both domestically as well as internationally, the demand for ATF is rising sharply and so is its price. Record high fuel prices in global market and supply uncertainties have put pressure on domestic aviation industry, as ATF prices alone constitute around 40 per cent of the total operating cost of airlines. In June, the International Air Transport Association (IATA) revised its industry financial forecast for 2008 significantly downwards to a loss of $2.3 billion. It said that for every dollar that the price of ATF increases, costs go up by $1.6 billion. Domestic ATF prices have increased by over 160 per cent from the beginning of 2005 till July this year and by over 80 per cent from a year-ago levels. This year alone, prices have jumped up by over 50 per cent. In India, after the dismantling of the administered price mechanism

(APM), effective April 2001, the oil companies revise ATF prices at regular intervals. The prices of ATF in India are based on international import parity prices. Also, prices of ATF vary across the states due to the variable tax structure. Notably, oil companies in India do not import ATF directly; rather they refine it from imported crude oil. With rising crude oil prices, imports are becoming expensive (Indian basket) day by day.

Government is unable to pass on the full impact of this rise to the consumer by raising fuel prices (petrol and diesel). As a result, the state owned oil marketing companies (almost 95 per cent of the market is with state owned firms) are forced to sell diesel, petrol, kerosene and LPG at way below cost, a cost they are trying to somewhat make up by raising the price of ATF, which is under their control. As a result prices of ATF in India are much higher than some of the other Asian countries. For example, price of ATF sold at Singapore airport is approximately 39 per cent below Indian prices.

With uncertainty in global crude oil prices, it becomes important that domestic airlines hedge their fuel price risk on an exchange platform. In the absence of such contracts, domestic airlines buy ATF in spot markets. Against this background, the Government of India allowed domestic airlines to hedge their fuel risk .

Change in ATF Prices in Metros for Domestic Airlines

Metro	July-08 (Rupees/ Kl)	% Change over Jan-08	% Change over July-07	% Change over July-06	% Change over July-05	% Change over Jan-05
Delhi	69,097.19	51.88	82.80	67.29	117.93	167.21
Kolkata	78,641.65	53.05	80.75	68.89	119.01	162.67
Mumbai	71,630.53	52.26	83.37	67.63	120.06	171.18
Chennai	75,505.25	52.93	83.25	68.14	118.21	166.04

Price source: Indian Oil Corporation Ltd.

As is evident from the graph shown below there was an increase in the ATF Prices at both domestic and international level but it was more for the domestic market. The Highest gap was during July 2006, the difference was more than Rs 10,000. Least difference was during July 2007.

LATEST DEVELOPMENT RELATED TO ATF PRICES

Fuel expenses constitute the major proportion of the operating costs of an aviation company. The crude oil prices have taken a u-turn since hitting a high of US$ 147.90 per barrel and now are at US$ 40-50 per barrel levels. This has meant some relief to the airline operators with Oil Marketing companies lowering ATF prices on the back of the Government abolishing the 5% custom duty on fuel.

Unlike prices of other petroleum products like kerosene, petrol, diesel, and liquefied petroleum gas, which are regulated by the government, aviation fuel is linked to global prices. Aviation fuel prices are revised at the beginning of every month, based on the change in price in the previous month. For the month of November 2008, the ATF prices were cut thrice by the OMCs: 19% in percentage terms. With effect from December 1, 2008, on monthon-month basis, the ATF prices were cut by 6% (over prices on November 16, 2008) and 15% (over average prices for November 2008) at Rs 40309.84 per KL. Further, with effect from December 16, 2008, the ATF prices were cut by another 11% over December 1, 2008 prices.

ISSUES RELATED TO PILOTS

"India needs 4000 pilots by 2010!" or "Aircraft deliveries on hold due to shortfall of pilots!" are often heard phrases at a time when commercial pilots are the need of the hour in the aviation industry. The glamorous lifestyle and opportunities to explore the globe attracts many youngsters towards the aviation industry. There is a belief that pilots have the best job and the growth and boom in Indian aviation have created gigantic opportunities for commercial pilots today. Yet there exists a certain level of disconcertion for students, once they actually embark on the process to become a commercial pilot.

The only option to receive a CPL (Commercial Pilot License) for the aspirants is to train abroad. The reason being that in India, there is a lack of dedicated flight Instructors, decade-old aircrafts and poor quality training offered at a price much higher than what is offered by flying schools in USA, Canada and Australia! Indian institutes provide training with the help of their training partners in the foreign countries like U.S.A,U.K etc. These institutes provide one-stop solutions, right from their medical to visa, accommodations, travel, flight training and finally conversion of licenses.

TERRORISM: EFFECT ON AVIATION INDUSTRY

Truth, as often said, is the first casualty of war. And so are the Aviation and Insurance industries since that horrific morning of September 11 which started with the total destruction of the twin towers of the World Trade Centre in New York and a portion of the US intelligence headquarter, the Pentagon in Virginia. The low-tech terrorist attacks using hijacked commercial airliners and carried out with deadly precision aimed at delivering the maximum human and financial loss sent the US aviation and insurance industry in a spin the ripples of which have left no national economy untouched across the world. The kamikaze terrorist attacks shattered whatever little calm existed in the world before September,11.

Slain US Black Rights leader Martin Luther King once said, "What affects one affects all." The statement, perhaps, provides the best, though unintended, commentary on the post September-eleven-developments, particularly with regard to the aviation and insurance industries. Aviation Industry, by it's very nature is heavily interlinked globally.

Example: A number of foreign airlines have stopped operations from Pakistan since September 11. British Airways, Air France, Germany's Lufthansa, Singapore Airlines, Cathay Pacific Airline, Malaysian Airlines, Gulf Air, China Air and Saudi Airlines have closed passenger and cargo operations in Pakistan.

PEST ANALYSIS

OVERVIEW:

Air travel has grown in the past decade. Travel grew strongly for both leisure and business purposes. India will have nearly 800 to 1000 airplanes by 2023, it was estimated by Airbus. In spite of growth between 30 to 50 per cent in Indian aviation industry, losses of approximately 2200 crore is estimated for the current year.

During 19991-1992, Modiluft, East West and Damania went bankrupt. Air Sahara and Jet Airways survived along with government own Indian Airlines because they had the capability to bear losses. Globalization and privatization had a major impact on aviation industry. Indian aviation industry was deregulated by the government in 1990s. As a result now 14 airlines are operating today in Indian sky. Now, collaboration with international organization and foreign direct investment are welcome to improve infrastructure and technology. Today people who can not afford high prices of Full Service Carriers (FSC) can travel by Low Cost Carriers (LCC) or budget airlines. Air Deccan was India's first LCC started in 2003. It flies to several metro and non-metro destinations. All airlines have three major fixed costs i.e fuel costs, financing or aircraft lease and labour cost. But LCC costs are 10 to 15 per cent lower than FSC.

This is because of three reasons. Firstly, saving on distribution cost as passengers book tickets on the internet. Secondly, no frills are offered on board. Thirdly, to accommodate additional seats, catering and cabin crew space in these aircraft has been used. So these aircraft have 40 seats more than the FSC.

Industry Analytics: Aviation Industry Report 72

PEST analysis of any industry sector investigates the important factors that are affecting the industry and influencing the companies operating in that sector. PEST is an acronym for political, economic, social and technological analysis. Political factors include government policies relating to the industry, tax policies, laws and regulations, trade restrictions and tariffs etc. The economic factors relate to changes in the wider economy such as economic growth, interest rates, exchange rates and inflation rate, etc. Social factors often look at the cultural aspects and include health consciousness, population growth rate, age distribution, changes in tastes and buying patterns, etc. The technological factors relate to the application of new inventions and ideas such as R&D activity, automation, technology incentives and the rate of technological change. The PEST Analysis is a perfect tool for managers and policy makers; helping them in analyzing the forces that are driving their industry and how these factors will influence their businesses and the whole industry in general. Our product also presents a brief profile of the industry comprising of current market, competition in it and future prospects of that sector. Political Factors:

In India, one can never over-look the political factors which influence each and every industry existing in the country. Like it or not, the political interference has to be present everywhere. Given below are a few of the political factors with respect to the airline industry:

- The airline industry is very susceptible to changes in the political environment as it has a great bearing on the travel habits of its customers. An unstable political environment causes uncertainty in the minds of the air travelers, regarding traveling to a particular country.
- Overall India's recent political environment has been largely unstable due to international events & continued tension with Pakistan.

Industry Analytics: Aviation Industry Report 73

- The government's inability to control the unbalanced internal situations like the Gujarat riots have also led to an increase in the instability of the political arena.
- The most significant political event however has been September 11.
- The events occurring on September had special significance for the airline industry since airplanes were involved. The immediate results were a huge drop in air traffic due to safety & security concerns of the people.

- International airlines are greatly affected by trade relations that their country has with others. Unless governments of the two countries trade with each other, there could be restrictions of flying into particular area leading to greater loss of potential air traffic(e.g. Pakistan and india)

- The development of freedom of movement and trade in the European Union has led to greater levels of competition on European routes coupled with increased movement of people.

- With the liberalization of the Indian aviation sector, the aviation industry in India has undergone a rapid transformation. From being primarily a government-owned industry, the Indian aviation industry is now dominated by privately owned full-service airlines and low-cost carriers. Private airlines account for around 75 per cent share of the domestic aviation market. Indian carriers currently have a fleet size of 310 aircrafts, but have 480 aircrafts on order, scheduled for delivery by 2012. Increasing liberalization and deregulation has led to an increase in the number of private players.

Industry Analytics: Aviation Industry Report 74

- Price of aviation turbine fuel (ATF) crashed drastically in December 2008, hitting US$ 0.665-US$ 0.789, which is its lowest level since the last four to five years. With this move, airlines are likely to prune their airfares considerably. Jet Airways, the country's largest private carrier, has slashed domestic fares by 40 per cent and national carrier Air India has announced that it will cut basic fares anywhere between 45 per cent and 60 per cent in February 2009 following a drop in ATF prices.
- Modernization of Airports: The Ministry of Civil Aviation has decided to modernize and upgrade 35 non – metro airports across India. Leading airport developers are readying to participate in bids to win the right to construct and operate commercial property at these airports. Apart from this, the government is also planning to build Greenfield airports at Navi Mumbai (Maharashtra), Kunnur(kerala), Hassan and Gulbarga (Karnataka), Ludhiana (Punjab), Greater Noida (NCR), Paykong (Sikkim), Cheithu (Nagaland) and Chakan (near Pune, Maharashtra).
- Entry Barriers for New Players: Stung by the competition unleashed by lowcost players like Air Deccan and SpiceJet, bigwigs of the Indian aviation industry have unleashed a hushed campaign for introduction of stiff entry barriers which will prevent competition from intensifying.
- The current demand is to increase the minimum investment level for scheduled airlines to Rs 250 crore as compared to the current Rs 30 crore. The ministry has also been urged to increase the minimum fleet strength to 10 instead of the current five.

Industry Analytics: Aviation Industry Report 75

Social factors

Social factors relate to pattern of behavior, tastes, and lifestyles. A major component of this is a change in consumer behaviour resulting from changes in fashions and styles. The age structure of the population also alter over time (currently we have an ageing population). An understanding of social change gives business better feel for the future market situation. Increased popularity of foreign travel leading to a boom in demand for air travel. However, this has been adversely affected by international terrorism.

- For many years in India air travel was perceived to be an elitist activity. This view Arose from the —Maharajah syndrome where, due to the prohibitive cost of air travel, the only people who could afford it were the rich and powerful. In recent years, however, this image of Civil Aviation has undergone a change and aviation is now viewed in a different light - as an essential link not only for international travel and trade but also for providing connectivity to different parts of the country. Aviation is, by its very nature, a critical part of the infrastructure of the country and has important ramifications for the development of tourism and trade, the opening up of inaccessible areas of the country and for providing stimulus to business activity and economic growth.

- India witnessed record 9.4% GDP growth in FY07, and has continued the strong growth by recording 9.3% growth in Q1FY08, characterized mainly by strong performance in industry and service sectors. Explosive growth in wages during this period has led to significantly higher disposable income, bringing about a distinct change int he life style of the middle and upper class population, which essentially is the target market of aviation sector. Over the years, airline passenger revenue, as a percentage of private final consumption expenditure (PFCE) on transport services, has grown from about 7.8 % in FY03 to about 9.8% in FY06. There is an expectation for this to increase to 12% by FY10.

Industry Analytics: Aviation Industry Report

Employment Opportunities: India is one of the fastest growing aviation markets in the world. The Airport Authority of India (AAI) manages a total of 127 airports in the country, which include 13 international airports, 7 custom airports, 80 domestic airports and 28 civil enclaves. There are over 450 airports and 1091 registered aircrafts in the country. This huge and very fast growing sector provides large number of employment opportunities.

Globally aviation industry is under the scanner because it is the fastest growing cause for global warning; and EU aircraft emissions alone have risen by 87% since 1990. The amount of carbon dioxide emitted by air travel doubled between 1990 and 2004; and with huge expansion in air traffic forecasted in both Asia and Europe, predominantly driven by low cost leisure travel, the trend is expected to continue. It is also pertinent to note the high altitude nature of carbon and other airline emission make air travel potentially more damaging than most other forms of transport.

The Aviation Industry in India

It is a phase of rapid growth in the industry with estimated growth of domestic passenger segment at 50% per annum. This has led to intense price competition due to which full service carriers like Jet Airways, Indian Airlines and Air Sahara are giving discounts of up to 60-70% for certain routes to match the new entrants' ticket prices. The customer has thus gained enormously as a result of liberalization of the sector.

Economic Factor

Economic factors include economic growth, interest rates, exchange rates and the inflation rate. These factors have major impacts on how businesses operate and make decisions. Investments in the Sector : The government estimates that the country will need US$400m in private investment in these 35 non – metro airports, while the state – run Airports Authority of India will also have to spend an equal amount. Demand for air travel is growing in india as a result of economic development, globalization, regulatory liberalization and declining passenger fares. We expect air travel to grow 16% CAGR (14.7% for domestic and 16.5% for international passengers) over the next four years until FY10. This growth in passenger traffic will drive a far larger growth of 20% in airline revenues. Civil Aviation Minister Praful Patel today said the government was considering foreign direct investment (FDI) of up to 25 per cent in Indian carriers by foreign airlines. (business standard january 14 2009.

- Rising GDP and increasing per capita income is positively impacting the airlines industry. Another major driver is the booming tourism industry in India. However, the low cost airline segment is facing challenges of increasing competition, rising fuel prices and inadequate infrastructure.

Industry Analytics: Aviation Industry Report 78

- Global economic slowdown reflects the impression of hard time in airline sectors of India too. The most popular airlines (Jet Airways, Kingfisher Airlines) which providing their operations in India are facing a tough time in festive seasons. The situation had become so worse that the management of various airlines services was forced to begin sacking of their employees as the aviation industry facing big loss. The whole world witnessed the dramatic scene of firing of 1900 employees of Jet Airways those were taken back under the political pressure. Kingfisher Airlines which is principal rival of Jet Airways also declared some deduction in their number of employees.

- The situation forced to sign an operational alliance between these two airline flights Jet Airways and Kingfisher Airlines. Just a few days ago all things were going well. Kingfisher Airlines had demanded for new aircraft's also a few days ago but all of sudden the whole scene is changed and the airline postponed their decision of including new aircrafts in the airline. The various airlines blame the high cost of air fuel in this year in India as compared to the rest of the market for this.

- Lower interest rates have meant that people have more disposable income to spend on luxuries like long distance air travel.

- Privatization of International Airports is in offing through Joint Venture route. Three Greenfield airports are getting developed at Kochi, Hyderabad and Bangalore with major shareholding of private sector. The work on Bangalore and Hyderabad airports are already done. Few selected non-metro airports are likely to be privatized. 100% foreign equity has also been allowed in construction and maintenance of airports with selective approval from Foreign Investment Promotion Board.

• In the context of a multiplicity of airlines, airport operators (including private sector), and the possibility of oligopolistic practices, there is a need for an autonomous regulatory authority which could work as a watchdog, as well as a facilitator for the sector, prescribe and enforce minimum standards for all agencies, settle disputes with regard to abuse of monopoly and ensure level playing field for all agencies. The CAA was commissioned to maintain a competitive civil aviation environment which ensures safety and security in accordance with international standards, promotes efficient, cost-effective and orderly growth of air transport and contributes to social and economic development of the country.

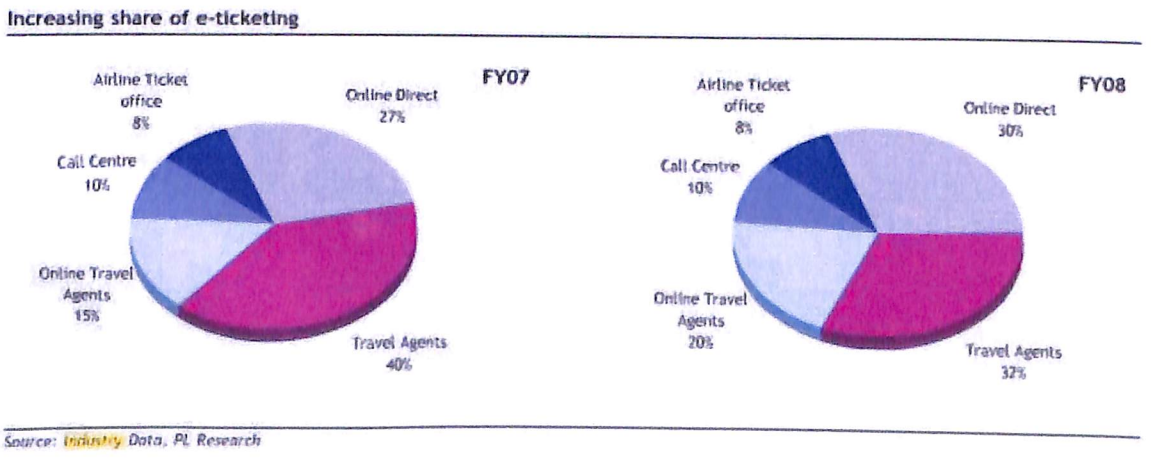
• Low-cost Airlines Raise Demand for Aircraft Manufacturing: The entry of several low cost carriers like Air Deccan, Spice Jet etc is increasing the demand for aircraft manufacturing. The demand for helicopters is also likely to increase with more emphasis on heli-tourism, adventure sports etc.

Technological Factors

• Over the years, airlines have been straddled with legacy business processes with hardly any effort at re-engineering innovative solutions. With IT industry providing a commendable backbone, airlines can now emerge from the inefficiency they have been restrained with. Innovative strategies and new technologies may well offer cost savings, but at the same time they can be hard to implement given the cost.

• Modern aircraft are safer and more economic to run than in the past making possible cheap air travel.

Growth of Electronic Ticketing: while industry is reducing its exposure to brokers/ travel agents, online ticketing and direct bookings are of late witnessing an increase trend as is clear from the below chart.

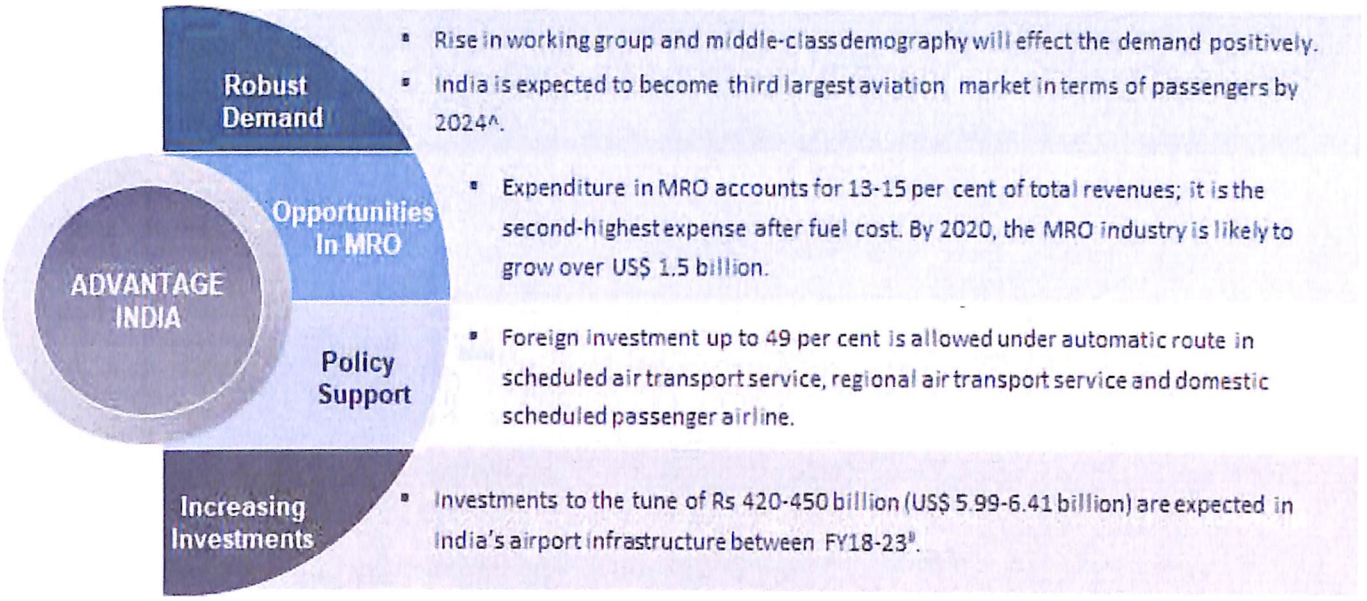


Technical Cooperation with EU : In 2004, India and the EU upgraded their already strong overall relationship into a strategic partnership. This strategic partnership is underpinned by an agreed Joint Action Plan in which civil aviation plays a key enabling role. Since the adoption of the Joint Action Plan in September 2005, co-operation in the area of civil aviation has been given new impetus.

As a first significant step, the two sides agreed to restore legal certainty to all the bilateral air services agreements between India and EU Member States. Therefore, it was agreed that a —horizontal agreement will be finalized as a matter of priority. The aim of the "horizontal agreement" will be to amend certain provisions in the bilateral agreements thereby bringing these into conformity with Community law thus restoring legal certainty to these agreements and the operators flying under them.

Secondly, building on the very successful results achieved under the 1999-2006 —EU India Civil Aviation Co-operation Project, Messrs. Prepared a Joint Action Plan that will set out the key priorities for strengthening future technical and technological co-operation. The Joint Action Plan will identify the main priority areas for future technical cooperation which will cover aviation safety (including strengthening the cooperation with the European Air Safety Agency (EASA)), security, airport infrastructure, air traffic management, environmental policy, economic regulation, training and industrial cooperation.

At the EU-India Aviation Summit, India was also invited to become associated in major EU technological programs such as GALILEO, the satellite navigation program, and SESAR, the air traffic management project.



Note: MRO – Maintenance, Repair and Overhaul, ^As per IATA forecasts, #As per CRISIL

The civil aviation industry in India has emerged as one of the fastest growing industries in the country during the last three years. India is currently considered the third largest domestic civil aviation market in the world. India has become the third largest domestic aviation market in the world and is expected to overtake UK to become the third largest air passenger* market by 2024.

Market Size

India's passenger* traffic stood at 199.60 million in FY20 (April-October 2019) where domestic passenger traffic reached 160.16 million and International passenger reached 39.43 million.

In FY20 (April-October 2019), domestic freight traffic stood at 0.80 million tonnes, while international freight traffic was at 1.20 million tonnes.

India's domestic and international aircraft movements reached 1.24 million and 0.25 million in FY20 (April-October 2019), respectively.

To cater to the rising air traffic, the Government of India has been working towards increasing the number of airports. As of March 2019, India has 103 operational airports. India has envisaged increasing the number of operational airports to 190-200 by FY40.

Further, the rising demand in the sector has pushed the number of airplanes operating in the sector. As of July 2018, there were nearly 620 aircraft being operated by scheduled airline operators in India. The number of airplanes is expected to grow to 1,100 planes by 2027.

Investment

According to data released by the Department of Industrial Policy and Promotion (DIPP), FDI inflows in India's air transport sector (including air freight) reached US$ 1,904.37 million between April 2000

and June 2019. The government has 100 per cent FDI under automatic route in scheduled air transport service, regional air transport service and domestic scheduled passenger airline. However, FDI over 49 per cent would require government approval.

India's aviation industry is expected to witness Rs 35,000 crore (US$ 4.99 billion) investment in the next four years. The Indian government is planning to invest US$ 1.83 billion for development of airport infrastructure along with aviation navigation services by 2026.

Key investments and developments in India's aviation industry include:

- As of December 2019, France-based Safran Group is planning an investment of US$ 150 million in a new aircraft engine maintenance, repair and overhaul (MRO) unit in India to cater to its airline customers.
- In November 2019, the Competition Commission of India (CCI) approves the acquisition of shareholdings in Mumbai International Airport Limited (MIAL) by Adani Properties Private Limited (APPL).
- UK group to invest Rs 950 crore (US$ 135.9 million) in Turbo Aviation's new airline TruStar
- AAI is going to invest Rs 15,000 crore (US$ 2.32 billion) in 2018-19 for expanding existing terminals and constructing 15 new ones.
- In June 2018, India has signed an open sky agreement with Australia allowing airlines on either side to offer unlimited seats to six Indian metro cities and various Australian cities.
- The AAI plans to develop Guwahati as an inter-regional hub and Agartala, Imphal and Dibrugarh as intra-regional hubs.
- Indian aircraft Manufacture, Repair and Overhaul (MRO) service providers are exempted completely from customs and countervailing duties

Government Initiatives

Some major initiatives undertaken by the government are:

- As per the Union Budget 2019-20, government will promote aircraft financing and leasing activities to make India's aviation market self-reliant.
- In February 2019, the Government of India sanctioned the development of a new greenfield airport in Hirasar, Gujarat, with an estimated investment of Rs 1,405 crore (US$ 194.73 million).
- As of January 2019, the Government of India is working on a blueprint to promote domestic manufacturing of aircrafts and aircraft financing within the country.
- In January 2019, the government organised the Global Aviation Summit in Mumbai which witnessed participation of over 1,200 delegates from 83 countries.
- In January 2019, the Government of India's released the National Air Cargo Policy Outline 2019 which envisages making Indian air cargo and logistics the most efficient, seamless and cost and time effective globally by the end of the next decade.

- In November 2018, the Government of India approved a proposal to manage six AAI airports under public private partnership (PPP). These airports are situated in Ahmedabad, Jaipur, Lucknow, Guwahati, Thiruvananthapuram and Mangaluru. AAI received 32 technical bids from ten companies.
- In February 2018, the Prime Minister of India launched the construction of Navi Mumbai airport which is expected to be built at a cost of US$ 2.58 billion. The first phase of the airport will be completed by end of 2019.
- The Government of Andhra Pradesh is to develop Greenfield airports in six cities-Nizamabad, Nellore, Kurnool, Ramagundam, Tadepalligudem and Kothagudem under the PPP model.
- Regional Connectivity Scheme (RCS) has been launched.

Achievements

Following are the achievements of the government during FY18:

- Under RCS-Udan scheme, approximately 34,74,000 passengers were flown, and 335 routes awarded during the year 2019 covering 33 airports (20 unserved, 3 underserved, 10 water aerodromes).
- As on October 2019, 55 AAI airports were declared as Single-Use Plastic Free Airport Terminals.
- India is expected to have the largest number of aircraft flying by its scheduled airlines latest by December 2019.
- Number of Operational Airports crossed 100 in FY19.
- In September 2018, Jharsuguda Airport in Odisha and Pakyong Airport in Sikkim were inaugurated. Pakyong airport is Sikkim's first ever airport and AAI's first Greenfield airport construction.
- In December 2018, Kannur International Airport was inaugurated making Kerala the only state in India to have four international airports.

Conclusion

India's aviation industry is largely untapped with huge growth opportunities, considering that air transport is still expensive for majority of the country's population, of which nearly 40 per cent is the upwardly mobile middle class.

The industry stakeholders should engage and collaborate with policy makers to implement efficient and rational decisions that would boost India's civil aviation industry. With the right policies and relentless focus on quality, cost and passenger interest, India would be well placed to achieve its vision of becoming the third-largest aviation market by 2020. The expenditure of Indian travellers is expected to grow up to Rs 9.5 lakh crore (US$ 136 billion) by 2021. Due to rise in demand in air travel, India will need 2,380 new commercial airplanes by 2038.

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