



Aviation Industry: Challenges and Prospects

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Abstract

Aviation as an industry is structurally extremely unattractive. It is very difficult to make profit in this industry. The industry is, weighed down by regulations, and influenced by several uncontrollable factors. The combined effect of these factors is historically the industry has never earned a rate of return above its investors' capital; in fact, it has destroyed more money than it has created. The main objective of the paper is to highlight the major characteristics of the industry. Factors such as cost of oil or security have direct impact on operational effectiveness and risk management of an airline company. Factors such as natural disasters or health emergencies and socio-political culture of a country too affect the financial health of the industry. The paper deals with Indian Civil Aviation Industry. This paper is a theoretical review.

Keywords: Civil Aviation; Industry; Profitability.

1. A Brief History of Indian Aviation industry

The first air service in India started in 1912. A passenger flight operated between Karachi and Delhi started the era of civil aviation in India. The flight was started by the Indian State Air Services in collaboration with the UK based Imperial Airways.

In 1932, JRD Tata founded Tata Airline, the first Indian airline. In early 1948, Government of India established a joint stock company, Air India International Ltd in collaboration with Air India (earlier Tata Airline). The inaugural flight of Air India International Ltd took off on June 8, 1948 on the Mumbai-London air route. The Government nationalized nine airline companies vide the Air Corporations Act, 1953. Accordingly it established the Indian Airlines Corporation (IAC) to cater to domestic air travel passengers and Air India International (AI) for international air travel passengers. This Act ensured that IAC and AI had a monopoly over the Indian skies. A third government-owned airline, Vayudoot, which provided feeder services between smaller cities, was merged with IAC in 1994. These government-owned airlines dominated Indian aviation industry till the mid-1990s. However in 1986, the Indian government granted permission to private sector companies to provide air taxi service.

In April 1990, the Government adopted open-sky policy and allowed air taxi- operators to operate flights from any airport. In 1994, the Indian Government, as part of its open sky policy, ended the monopoly of IA and AI in the air transport services by repealing the Air Corporations Act of 1953 and replacing it with the Air Corporations (Transfer of Undertaking and Repeal) Act, 1994. Private operators were allowed to provide air transport services. Foreign direct investment (FDI) of up to 49 percent equity stake and NRI (Non Resident Indian) investment of up to 100 percent equity stake were permitted through the automatic FDI route in the domestic air transport services sector. However, no foreign airline could directly or indirectly hold equity in a domestic airline company.

By 1995, several private airlines had ventured into the aviation business and accounted for more than 10 percent of the domestic air traffic. These included Jet Airways Sahara, NEPC Airlines, East West Airlines, ModiLuft Airlines, Jagsons Airlines, Continental Aviation, and Damania Airways. Meanwhile, Indian Airlines, which had dominated the Indian air travel industry, began to lose market share to Jet Airways and Sahara. While these policy changes led to a dramatic increase in the number of private airline carriers; due to viability issues, by the end of the 20th century all private air carriers, except Jet Airlines and Air Sahara, exited the market (Khurana,2009).

In 2003, civil aviation of India entered a new phase. Low cost airlines for the first time entered the civil aviation market. Air Deccan was the pioneer of no frills, low cost model of air travel in India. Air Deccan brought a new competitive spirit to India's civil aviation by challenging Jet Airways-Air Sahara duopoly. This low cost model opened the doors of Indian civil aviation for everybody. Earlier air travel in India was reserved for the elites, as it was an expensive mode of transportation. Low cost airlines with their price adjustment and cost cutting techniques managed to get a mass base. By 2007 mergers and acquisitions became common in India's civil aviation sector. Within a span of two years Air India and Indian Airlines merged, as did Jet Airways and Air Sahara, and Kingfisher Airlines and Air Deccan. Today, Indian aviation industry is dominated by private airlines and these include low cost carriers such as Indigo, GoAir, SpiceJet etc, who have made air travel affordable. Historically, the Indian aviation sector has not developed at a rate it could have. There are several reasons for this low growth. This will be discussed in the next segment.

2. Airline Industry: Characteristics and Challenges

Aviation as an industry is extremely capital intensive. Even after several attempts the price of Aviation Turbine Fuel (ATF) continues to increase exponentially. Apart from ATF airport charges, unavailability of commercial pilots, higher cost of capital and inflexible labor laws are some structural challenges which all airline companies are currently experiencing. The problems have compounded due to industry-wide capacity additions and liberal bilateral grants by the government much in excess of actual demand. This is one industry which already has the problem of oversupply; constant capacity addition makes the situation even harder. Factors such as cost of oil or security have direct impact on operational effectiveness and risk management of an airline company. Factors such as natural disasters or health emergencies and socio-political culture of a country, also affect the financial health of the industry. The major characteristics of the industry are mentioned below.

2.1 Government Intervention

Government intervention for aviation industry is higher compared to any other industry. The global aviation market is very competitive, but the industry is burdened with over regulation. Competition and government interference produce a fragmented industry. The high regulations in aviation are mostly concerned with international routes. The level of government intervention over an airline's domestic operations is comparatively low. The landing rights or flying rights over another country's territory does not lie in the hands of the airline company; rather it depends on the political relation and bilateral rights between two or more countries. Safety issue is one important reason behind the high level of government intervention. A single aircraft carries several passengers whose safety may be jeopardized by inappropriate airline policies and practices, like non-adherence to safety standards and aircraft maintenance etc. Not only central government, but state governments also play some role in the aviation industry. One good example of state government intervention is the difference of tax on ATF between different states. Governments also put restrictions on FDI in aviation.

2.2 Bilateral Agreements and Freedoms of International Air Service

In 1944, when the World War II was in the closing stages, 54 countries came to the Conference in Chicago, USA to talk about the future of international aviation. The conference resulted in the signing of the Convention on International Civil Aviation, commonly known as the Chicago Convention. The Chicago Convention established the rules under which international aviation operates. It also established the International Civil Aviation Organization (ICAO). The organization is responsible for fostering the planning and development of international air transport.

The Chicago Convention determined that no scheduled international air service may be operated over or into the territory of a contracting state without their permission. Over the years, ICAO developed a series of traffic rights, known as Freedoms of the Air. These freedoms continue to form the basis of rights exchanged in air services negotiations today. The major Freedom rights are

- The privilege to fly across its territory without landing.
- The privilege to land for non-traffic purposes.
- The privilege to put down passengers, cargo and mail destined for the territory of the state whose nationality the aircraft possesses.
- The privilege to take on passengers, mail and cargo destined for the territory of the state whose nationality the aircraft possesses.
- The privilege to take on passengers, mail and cargo destined for the territory of any other contracting state and the privilege to put down passengers, mail and cargo coming from any such territory.

- The 6th Freedom is the freedom to carry traffic between two foreign states via the state in which the airline is registered. A country's geographic location decides if that country has or does not have good opportunities to carry 6th freedom traffic. For instance European countries have good opportunities and Australia almost nothing.
- The 7th Freedom is the freedom to operate a service between two foreign states.
- The 8th Freedom is the freedom to operate domestic flights in foreign countries. It is almost never granted.
- Based On the freedoms of the Air two or more countries conclude bilateral or multilateral agreements. The nature of the agreements depends on how many freedoms of the air are granted. The bilateral air services agreements allow to the designated airlines of those countries to operate a commercial flight that covers the transport of passengers and cargoes between that two countries. Also they normally regulate the frequency and capacity of air services between countries, pricing and other commercial aspects. But the nature of bilateral agreements can be restricted or liberal. The "restricted" agreement leaves governments regulating capacity, price, as well as the markets to be served. A "liberal" agreement tends to remove government restrictions on capacity and pricing, but still defines which markets can be served. An "Open Skies" agreement essentially deregulates market aspects of the service to be provided between the two countries. Bilateral air services agreements/arrangements contain provisions on; *traffic* rights, capacity, tariffs, designation, ownership and control.

2.3 Market Structure

There are no civil aviation markets in the world that could be characterized as a perfectly competitive market. Generally civil aviation markets exhibit either monopolistic or oligopolistic market characteristics. India's civil aviation sector is much younger than other modes of transportation and its market structure has changed frequently over the last few decades. India's civil aviation sector evolved from a market tightly controlled by the government with two air carrier service providers to a relatively competitive market with a somewhat small number of domestic and international air carriers. The strategy of each firm depends on the behavior of rival firms.

Some features of India's civil aviation sector include a large number of consumers (passengers and cargo), a relatively small number of airlines with significant market share, significant cost barriers to market entry, differentiated services, and competitive firms affecting each other's business decisions. These market characteristics indicate that India's civil aviation sector has an inherent oligopolistic market structure. Since within India's civil aviation sector, economies of scale and scope exist; in order for each market participant to break even, the firm must achieve a minimum efficient scale of operation.

2.4 Operational and Strategic Complexity

The Aviation industry has certain characteristic feature which makes it a very complex industry. The unused seats can't be inventorised, the impact of seasonality and cyclicity is very high in this industry. Long time taken for single decisions like aircraft acquisitions makes the structure of the aviation industry very unique. One example could be the seasonality issues. During peak season in a bid to capture customers' airlines buy more planes or hire more employees which increase the fixed cost. During the lean season the high fixed cost affects the financial performance of the company.

Pangarkar (2008) opines that "a large jet aircraft costs in excess of US\$200 million, and its procurement typically involves significant lead time. Since an aircraft has an operating life span of 25 to 30 years and depending on the average age of the company's fleet, airline executives may be committing themselves to a time frame of decades, creating huge strategic commitments, when placing a new aircraft order". Existing assumptions regarding the regulatory, economic or operating environments easily go awry over such a long period of time, increasing the strategic risk for airlines.

2.5 Labour

Like cost intensity aviation business is equally labor intensive. The nature of the work force in an aviation company ranges from highly skilled employees to un-skilled employees. The intrinsic nature of the labor force is fragmented and complex. It is a challenge for the management of any airline company to manage different types of employees. Historically aviation industry is highly unionized. The labor relations are not very good in the aviation industry. Unions have managed over time to ensure generous pay package and exceptionally good working conditions for the employees. Strikes are very rampant in this industry and it is used more as a threat rather than a weapon for ensuring better corporate democracy. The union power comes from the fact that airlines use highly capital intensive equipment that is useless unless flown. Therefore, a strike could easily bankrupt any airline and the unions know this. As a consequence, labor contracts are unbelievably complex and

generous to union members. There are different sections of employees with different skill set, thus has a complex and diverse labor structure which often results in multiple unions and inter-union rivalry (Pilarski, 2012).

2.6 Monopoly Provider

The supply chain of an airline company consists of IT vendors, airports, aircraft manufacturers etc. As stated above almost all aviation markets around the world are oligopolistic in nature, but airline suppliers are very monopolistic in nature. This monopolistic structure of the supplier industry reduces the bargaining power of the airline company and makes it difficult for an aviation company to make profit. In terms of aircraft manufactures there are two companies Boeing and Airbus. Aircrafts are the most important element of the aviation business and it costs millions of dollars. Manufacturers and leasing companies overproduce airplanes and sell or rent them at low prices in lean seasons. This aggravates the problem of overcapacity in aviation industry. Apart from the manufactures airports are natural monopolies. Airline companies have to fully depend on the airports for its function. Since airports are monopolies the charges are uncontrolled and very high.

According to a CII report (2014) the airport (aeronautical) charges levied by the Indian airports are reportedly stated to be the second highest amongst the Asian and Gulf countries, after Hong Kong. The airports / aeronautical charges include Route Navigation Facility Charges (RNFC), Landing, Housing and Packing Charges, User Development Fees (in case of private airports) Terminal Navigation Landing Charges, X-ray Baggage Charges etc.

3. Conclusion

Pangarkar (2008) in his book “Flying high in a competitive industry” does a macro-environmental analysis of the aviation industry. According to him in terms of political factors, the impact of ‘open skies’ philosophy has prompted some deregulation in the industry in terms of entry, even though several constrains remain in terms of continued protectionism and red tape in several countries. Many routes require development in terms of infrastructure. On many routes there exist restriction in terms of slot allocation and landing. Turmoil political condition is partially responsible for a protected aviation industry.

In terms of economic factors, the world economy is mature, but there is a high growth in emerging economies. Even in the areas of high growth, however, where air travel demand is also growing fast, the profitability of the airline industry is weak or negative. The only positive hope for the industry is there is a rise in real incomes and disposable incomes which can result in more air travel ergo growth of aviation industry. But coming to the negative side of the rise of real income, it invites more income polarization which causes the exclusion of the poorer parts of the population from the industry.

In terms of social factors, there is a higher level of multi-culturalism and demand for learning about and understanding new cultures which fuels demand for air travel. At the same time, though, environmental concerns lead to severe criticism of the industry and its effects on CO2 emissions. Compared to other industry the role played for air pollution by aviation industry is much lower, but it receives a disproportionate criticism and attention from activists.

Finally, in terms of technological factors, internet has revolutionized air travel. Today because of internet purchase decisions or information flow has become very transparent. Internet has also helped the aviation industry to come out of its elite status and become more people oriented. Internet is used by the airline to improve the quality of its service. The impact of the internet has been tremendous. One of its greatest effects from the point of the customer is better transparency in information regarding purchase decision with reduced search cost. Other technological advances include new plane designs which enable longer range travel as well as higher capacity in terms of passenger numbers and efficiency in terms of fuel consumption. In addition, bio-metric check-in, customer relationship management (CRM) software and traffic management technologies for airport enable activities to be undertaken more efficiently as well as allow airlines to relate to their customer base more effectively.

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