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AIR INDIA: COMPARATIVE STUDY OF REVENUE DRIVERS IN INDIAN AIRLINES

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Abstract

In this paper, the researcher has compared various revenue parameters which help airlines generate revenue with special focus on Air India and also with reference to its peer group of airlines in Indian viation pace. A comparison of global standards on various parameters mostly in context to aviation industry in USA as also incorporated in the paper. The good thing about aviation sector is that allmost, all the data is available in the public domain however analysis and interpretation requires a bit of work.

The researcher has reviewed various factors responsible for driving revenue for five major airlines operating in Indian aviation space, some of which are low cost carriers however the line dividing the two has been increasingly becoming thin and since the comparision is only on technical parameters this difference has been conveniently ignored.

The thumb rule like any other business is to keep revenue factors high and cost factors low.

Keywords: Air India, Revenue Drivers in Airline, Air India Revenue

Air India: Comparative Study of Revenue Drivers in Indian Airlines

Indian Air Transport Industry started in 1932, when Tata Airline which started as a department at Tata Sons Limited was converted as a public limited company. The Air India Limited was formed in 1946, by taking over Tata Airlines with all its aircrafts, equipment, engineering facilities, training personal, airmail contracts etc.

The Air Transport Industry was nationalized on 1st August 1955 whence Air Corporation took over the business of **Refer Table 1**:

Table 1 : Companies in Aviation Industries in India

Old Company	New Company
Air India Limited	Air India International Corporation (Later named Air India in June 1962)
Air Services of India Limited	Indian Airline Corporation Limited
Airways (India) Limited	
Bharat Airways Limited	
Deccan Airways Limited	
Himalaya Aviation Limited	
Indian National Airways Limited	
Kalinga Airlines Limited	

The aviation industry in India was predominantly controlled by these two airlines unless Government of India came out with “Open Sky Policy” in 1991.Post 1991 Indian air space saw introduction of various airlines like: Jet Airways, Air Sahara, Damania Airways, Modiluft (later named Spice Jet), Air Deccan, Kingfisher Airlines etc. The policy was focused on implementing fundamental economic

reforms, industry deregulation in key sectors, attracting & accelerating foreign direct investment and pushing forward the privatization of public sector undertakings including the aviation industry. The duopolistic aviation industry of the 1980s and 1990s transformed into oligopoly due to this policy change. During the course of these twenty-seven years, few airlines have closed down and few were acquired, hence we have following major airlines in Indian Air Space as on September 2017 which have been included in our study. We have Included only major five airlines out of thee in our study due to the long duration of sustained operations of the airlines and for ease of data comparison: **(Refer Table 2)**

Table 2 : Air Line Companies included in Study

S. No.	Name of Airline
1	Air India (Includes Air India Express & Alliance Air)
2	Jet Airways (Also includes Jet Lite)
3	Spice Jet
4	Indigo
5	Go Air
6	Vistara
7	True Jet
8	Zoom Air
9	Air Asia

Air India Current Status

Currently Air India globally ranks at 53rd position-out of 848 registered airlines. It is ranked 38th on ASK's, 40th on Cargo payload, 37th in AFTK's and 54th in frequencies of flights. Air India Fleet has a total of 220 Airplanes and have 45 Airplanes on order which shall be delivered by early next year.

This paper shall cover five revenue drivers: Capacity, Load Factor, Passenger Yield, Cargo, Ancillary Revenue.

Revenue Driver: Capacity

Capacity in Airlines is a revenue driver as it creates the potential for customer revenue. Airline capacity helps to understand the planned total seat capacity airlines expect to offer in future. It is dependent on the demand for airline tickets, obliviously it has to higher during peak seasons or at times when the customer movement is higher. As per **Table 3**, Air India has the highest capacity of around twenty-seven thousand, Jet Airways has a capacity of around twenty-one thousand followed closely by Indigo. The capacity though gives us an idea of the ability of an airline to cater to the number of customers however it does not give any idea of the customers served by the airline. Air India though have the highest capacity it does not mean that Air India also has the maximum customer share and highest revenue. For getting an idea about the customer share and revenue one has to understand other factors of the airline business. If the capacity data of 2014 are compared, it is evident that all the airlines except jet airways have increased their capacity by foreseeing the demand as well as the better outlook of the market post 2014 due to decrease in crude oil prices. Jet Airways has been cautious in the proposed fleet expansion however Indigo has been very aggressive in its fleet expansion and have increased number of airplanes from 27 to 107 in a span of two years and also gave another order of new highly fuel efficient alpha planes to Airbus. Indigo has advantage of using single configuration airplanes (Airbus A320-200) whereas other airlines use

various kinds of airplanes in their fleet. Indigo is also aggressive in changing its airplanes quiet frequently to decrease its cost. The average life of aircraft in Indigo is lowest (Two Years One Month).

Table 3 : Capacity of Various Airlines in Indian Airspace as on 31st March 2016

Airline	No. of Air Crafts	Capacity	% of Capacity
Air India	136	27,492	34%
Jet Airways	116	20,860	25%
Indigo	107	19,260	23%
Spice Jet	43	6,552	8%
Go Air	19	3,420	4%
Other Airlines (Vistara, Air Asia, Air Pegasus, Trujet etc.)	22	3,112	4%

In USA, the capacity remained same from the period of 2007 to 2014 however to capitalize on the declining fuel prices the airlines have started to add to the capacity cautiously from the second quarter of 2014.

Revenue Driver: Load Factor (LF)

Load Factor (LP)/Passenger Load Factor (PLF) measures as to how much an airline's passenger carrying capacity is used. It is calculated by the division of Revenue Passenger Kilometers (RPK) and Available Seat Kilometers (ASK). If we assume, the capacity to remain same, then RPK is directly proportional PLF. Airlines try to maximize PLF and this also helps management in taking decision about pricing, capacity and frequency of flights.

On analysis of the Indian Airlines, it is obvious that Spice Jet had the highest increase in PLF from 2014-15 to 2015-16 which is about 10%. This can be largely contributed to Flash Sales done by Spice Jet during this period.

The same it applicable in case of other airlines where the maximum contribution comes from Air Asia who have mastered the pricing for Indian market.

Table 4 : Capacity of Various Airlines in Indian Airspace as on 31st March 2014

Airline	No. of Air Crafts	Capacity	% of Capacity
Air India	133	25,887	36%
Jet Airways	123	18,690	26%
Indigo	77	13,860	19%
Spice Jet	58	9,435	13%
Go Air	18	3,420	5%
Other Airlines (Air Asia (India) Ltd. & LEPL Projects Ltd.)	5	314	0.4%[1]

Another factor contributing to the increase in PLF is the fact that there has been high growth of 21.58% in the number of domestic passengers during 2015-16. The PLF was 74.6% in 2012-13 and slightly low at 73.3% in 2013-14, increased to 82.9% in 2015-16 and was 79.0% in the year 2014-15. **(Refer Table 4)**

Despite of the overall growth in PLF in Indian market, Air India's PLF grew only by 2.2% in one year. The main reason for Air India's bad performance can be attributed to its bad customer service and low on time performance. Air India lags far behind its peers in on time performance, customer service, cleaning of Air Crafts and has the highest number of customer complaints. These operation issues if dealt better, may help Air India increase its PLF.

In USA, the average load factor of all the airlines has more or less remained constant from the beginning of 2012, it has stayed between 84.9% to 86.1% whereas in India it has been 82.9% highest in the best season of 2015-16 which saw maximum increase in the number of passengers.

Revenue Driver: Passenger Yield

The average fare paid per passenger kilometer flown gives the value of passenger yield. It is calculated by the following formula

$$\textit{Passenger Yield} = \frac{\textit{Passenger Revenue}}{\textit{Kilometers traveled by Passenger}}$$

This is calculated in Rupees per Kilometer and is useful measure for assessing fare changes over a period of time. Yield does not give the complete picture of comparisons across markets and/or airlines, as it varies dramatically by stage length and does not incorporate load factor, hence is not useful for comparisons across markets and/or airlines.

Yield Management was first implemented by American Airlines in in 1980s with the objective to maximize customer revenues by selling right seat to the right customer at right price. The effort can be broken down into two components : pricing & yield management.

Pricing—the determination of fare structure (fare classes and levels) and restrictions (advance purchase conditions, cancellation penalties, Saturday night stay requirements, etc.)— depended on a number of factors, the most important of which were the airline's cost structure and pricing philosophy, its competitors' behavior, and its customers' travelling preferences. There are mainly two types of pricing as a practice full fares and discounted fares (with restrictions).

Once prices and restrictions had been determined; it is yield management's responsibility to control the number of seats available in each category. **(Refer Table 5)**

Table 5: PLF of Indian Airlines as on 31st March 2016

Airline	PLF 2014-15 (%)	PLF 2015-16 (%)	YoY Growth in PLF (%)
Air India	73	75.2	2.2
Jet Airways	79.25	79.9	0.75
Indigo	79.4	84.1	4.7
Spice Jet	81.8	92	10.2
Go Air	79.1	83.7	4.6
Other Airlines[1]	67.9	77.8	9.9

In Indian Aviation Industry **(Figure 1)**, the average passenger yield has been Rs. 4.97 per km & Air India has a passenger yield of Rs. 4.1 per kilometer and it stands 9th in a club of thirteen airlines. If the three airlines are clubbed: Alliance Air, Air India Express and Air India,the cumulative passenger yield shall be Rs. 5.73 per km. In USA, the average passenger yield for all the airlines for the year 2016-17 has been USD 1.17 per mile.

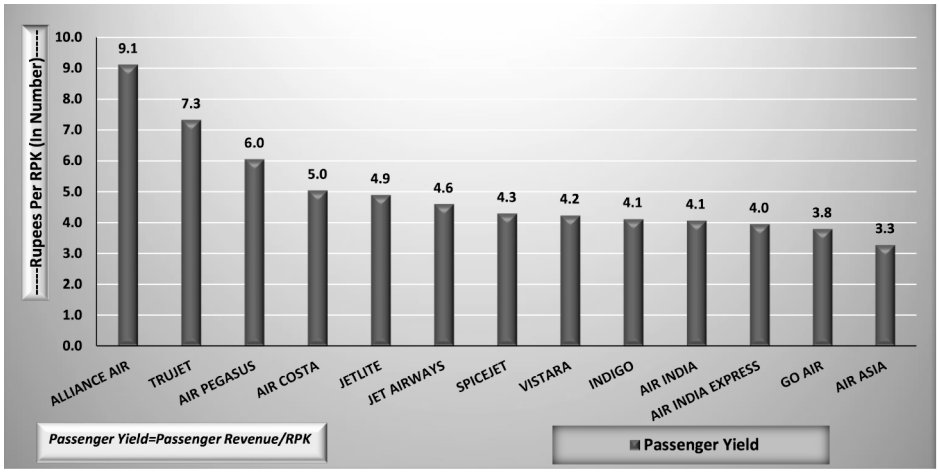

Figure 1 : Passenger Yield in Indian Airlines 2016-17

Revenue Driver: Cargo

Cargo is defined as the goods carried on a plane. Cargo "freighters" carry only goods, but freight also travel's in the holds of passenger planes. Combination planes have a main deck that is divided into a cargo area and a passenger area. This is also a driver through which airlines generate revenue. This type of cargo (carried in passenger planes) is known as Belly Cargo. **(Refer Table 6)**

Table 6 : Cargo: Freight Traffic (Domestic & International)

Freight Traffic	2016-17	2015-16	2014-15
Domestic	6.38 Lakh MT	6.24 Lakh MT	5.91 Lakh MT
International	15.13 Lakh MT	14.04 Lakh MT	13.68 Lakh MT

The domestic cargo traffic grew by 6.3% (CAGR) over the period from 2007-08 to 2016-17 while the growth in International cargo traffic is of 4.4% (CAGR) during the same period.

On analyzing the cargo carried by major Indian Airlines it is inferred that Jet Airways carries maximum amount of belly cargo amongst its peers, Air India is second and Indigo is a close third. Indian market is price sensitive and the Air Cargo is not the preferred mode of transportation, the customers prefer to send material by road for domestic transportation and prefer sea for International transportation. The freight rates of Indian Airlines are relatively high compared to Road or Sea and since the travel time is more of less constant, businesses are able to plan as per this timeline as well. Since they consider the lead time from order to dispatch, they also plan for an additional transportation time hence the penetration of Air Cargo in Indian markets is less. **(Refer Table 7)**

The case is more or less same in USA as cargo revenue generated from freight & mail services accounts for only 2% of total airline revenue.

Table 7 : Cargo carried by Major Indian Airlines for last three years.

Cargo Carried in Thousands of Tons			
Airline	2017 *	2016	2015
Air India	131.07	195.3	215.9
Jet Airways	191.6	242.7	235.3
Indigo	111	173	146
Spice Jet	40	64.7	55.4
Go Air	29.2	55.3	56.3

* 2017 data is taken till July 2017
- Jet Lite & Jet Airways have been clubbed and considered a single entity
- Air India also include alliance air and air India express
- Sum of all the flights have been included like: Scheduled Domestic, Non-Scheduled Domestic, Scheduled International

Revenue Driver: Ancillary Revenue

"Any revenue generated by any product or service by direct sales to passengers minus the revenue generated by sale of thicket."

Idea Works Company includes categories like, frequent flying, advertising, a la carte, commission-based products in ancillary revenue."

Domestic airlines have been levying a fee for choice of seat, use of lounge and onboard meals only as of now and Indian domestic airlines have a long way to go as ancillary revenue made up only 0.7% and 3.3% of total revenue of Spice Jet and Jet Airways respectively in 2012. In India possibility of earning revenue through ancillary means have not be explored fully, as not only airlines did not pay required attention but the DGCA (Regulatory Authority) also discouraged airlines to charge higher for non-ticket services. Earlier, airlines were only allowed to charge for certain services like food but for any other service to become chargeable it needed a go ahead from the DGCA.

According to a survey by US-based consultancy firm IdeaWorks Company, "in 2015 airlines earned $26 billion in ancillary services revenues. According to the survey, US-based low-cost airline Spirit earned about 43.4% of all its revenue from ancillary sources, followed by Allegiant Air and Wizz Air, which earned 37.6% and 36.4 %, respectively, of their revenue from ancillary sources."

This however does not give the correct picture as the airline which have earned the maximum revenue from ancillary services are low cost airlines whose ticket prices are low however they charge for every other service including baggage except hand bag. That being said the fact remains that in India , airlines have still not exploited the opportunities of increasing revenue by means of providing ancillary services on charge basis as this driver is an important revenue generator.

Currently some airlines (e.g Fin Air, Lufthansa) have included third-party merchandise with adhoc inventories – such as hotels, restaurants, duty free retailers, cab companies, sellers of event tickets – to develop a retail environment as part of their in-flight Internet portals.

Indian Airlines have long way to go in generating revenue, as of now the revenue is so less that it does not get featured in DGCA reports.

Findings

The paper helps us understand the major revenue parameters in aviation sector. Air India is behind its peers in all the factors and needs lot of improvement. Air India's bad performance is attributed to its bad customer service, low on time performance, use of old planes etc.

Apart from Air India not performing, other carriers have a long way to go as far as generating more revenue is concerned. India has to deregulate the pricing of ancillary services and DGCA should focus more on safety and compliance and less on allowing the carrier to find ways and means to generate revenue.

Indian aviation has a long way to go with respect to aviation services in developed countries.

Conclusion & Further Study

The analysis presents a comprehensive approach of revenue parameters for Indian airline sector. The revenue parameters shall help us to understand the ways and means by which airlines maximize their revenue and become more sustainable. The other factor that determines any company's growth are the cost parameters. Cost parameters include fixed and variable costs incurred by the company and can be studied further for airline industry to get a holistic perspective of the industry. Any company desiring to grow and sustain should maximize revenue parameters and minimize cost parameters.

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