



A STUDY ON THE FACTORS PLAGUING THE FUNCTIONING OF AVIATION INDUSTRY IN INDIA

¹Dr. Bhuvana Venkatraman, ²Jitendra Singh

¹ Associate Professor, ² Research Scholar

Department of Commerce, Guru Ghasidas Vishwavidyalaya
Bilaspur, Chhattisgarh, India

Abstract : The aviation sector provides global connection, which is important for the growth and development of international trade and commerce. Further, it also impacts how a country's economy is shaped by connecting it to the rest of the world. Civil Aviation sector in India has gradually transformed itself from a medium of transportation for the elite to a necessary infrastructure for the society. The development of this sector totally depends upon the kind of support it gets from the operating environment. While few airline companies are provided with sufficient liquidity or strong financial support from their parent companies to deal with the challenges in their functioning, others continue to face financial troubles and liquidity related problems, though in a better position compared to previous years. This paper discusses the problems faced by civil aviation in India and analyses the factors that are present in the operating environment in which civil aviation industry in the country is operating. The analysis has been done on the basis of the secondary data that are available on different websites, articles and news items which appeared in the local/international news papers and journals.

Keywords: Civil Aviation, Aviation Turbine Fuel (ATF), financial crunch, Bankruptcy, DGCA

1. History of aviation industry in India

The history of Indian Aviation Industry dates back to December 1912 when the first domestic air route was opened by Indian Air Services in association with the UK based Imperial Airways. It was an extension of London-Karachi flight of the Imperial Airways. Three years later the Tata Sons Ltd., started the first Indian airline as a regular airmail service between Karachi and Madras without any support from the Indian government. After 1947, the government acquired control of the aviation industry and as a national carrier it established Air India. Between 1950s and 1960s various other airlines were also established, including Indian Airlines, which operated domestic flights. In 1990s the government permitted private airlines to operate in the country, this was a major shift in the Indian aviation industry. This shift paved the way for the establishment of various other private airlines, including Jet Airways, which became country's one of the leading airlines before it ceased its operations back in 2019.

Indian Airlines and Air India were the two state-owned aviation entities that had whole control over the airline industry in India for nearly four decades. At that time, there were only few numbers of flights, as compared to today's scenario. After that many private airline operators entered the sector for example, various low-cost airline and service operators started functioning domestically and internationally. Owing to the development and transformation of airport infrastructure, India witnessed a number of airline operators further entering into the aviation industry.

Despite the growth of the aviation sector in India, the sector faces many challenges. The failure to tackle with these challenges resulted in grounding several airlines in the recent past. The reason airlines constantly face financial crisis is because in this business companies really do not have control over their costs. The major expense in running an airline is of the oil i.e. Aviation Turbine Fuel (ATF). Airline companies have no control over its price. The higher it goes, the more is their expenditure in operating the airline. Despite

years of substantial losses, many unprofitable airlines continue to remain in business because various stakeholders cannot afford to let them close.

2. Review of Literature

There is vast scope for the aviation industry to grow in India. But if we consider the performance of airlines then it is found that many problems are associated with their performance. If we study the financial statements of these airline operators it can be seen that most of the Indian airlines are running into losses since 2008. Airlines in India are grappling with many issues such as high fuel prices, rupee dollar exchange rate; heavy operating expenses etc. (The Economic Times, May 03, 2023). The survival becomes more difficult when airlines started following low-cost mode in early 2000s.

The existing problem with aviation sector can be understood by the fact that, the Regional Vice President for Asia Pacific of International Air Transport Association (IATA), made a remarks during a press conference at the 78th annual general meeting of the global airlines body. He said that it is not easy for airline to turn profitable in India. A lot of issues are there to overcome (Business standard, Jun 19 2022). Owing to such issues there have been cases of many airlines shutting operations. A prominent example is of the national carrier Air India. Along with Malaysia Airlines, Garuda Indonesia and Thai Airways International, Air India was one of a struggling national airlines in Asia (Nikkei Asia, January 23, 2020). These carriers have lost their ground to privately owned low-cost airlines due to some common problems such as political interference and overly bureaucratic management. Air India had been making losses since 2007 when it was merged with the state-owned domestic operator Indian Airlines. It remained operational due to taxpayer-funded bailouts (BBC, Oct 08, 2021). Since the financial year 2011-12, the Government of India has supplied more than ₹ 300 billion into the troubled national carrier, whose net losses for the year ended March 2019 reached ₹ 85 billion. The secretary of Department of Investment and Public Asset Management (DIPAM) said that its losses were around ₹ 20 crore per day. Thus the government was left with no option but to sell its stake in the carrier (The Times of India, Oct 08, 2021).

Another airline which struggled through the financial crisis was Jet Airways. Once India's largest private airline, Jet Airways decided to temporarily suspend operations as lenders refused to consider extending emergency funding of ₹ 983 crore to keep the airline flying (The Indian Express, April 18, 2019). The officials said that the airline is not in a position to pay for fuel or other critical services to keep the operations going. Consequently, Jet Airways was compelled to shut its operations back in year 2019.

Similar was the case of decline of a renowned carrier Kingfisher airline. Aviation news writer Simple Flying reports that In September 2011, Kingfisher's leadership disclosed to the Bombay Stock Exchange (BSE) that the firm had incurred significant losses and its net worth had been eroded (Simple Flying, oct 20, 2020). Latest case of airline bankruptcy in the row is the case of Go First airlines. Go First declared bankruptcy in May 2023, citing financial losses caused by a variety of factors, including the Covid-19 pandemic, increased fuel costs and engine procurement issues (Business Line, May 30, 2023).

After analyzing a host of papers on the financial performance of airlines, Shome, S., & Verma, S. (2020) observes that majority of the airlines have been under financial distress. The financial loss of Indian carriers during financial year 2020-21 is approximately ₹ 19,000 crore. The financial loss of Indian airports during financial year 2020-21 is approximately ₹ 3,400 crore (The Economic Times, Aug 05, 2021). This could be attributed to the spread of Covid-19 pandemic that hit nearly all the industries badly. But if we talk about the financial performance of the industry during pre-pandemic times, the profits were still low.

Mahtani, U. S., & Garg, C. P. (2018) found that Air Asia faced a cash crunch in 2016 and was forced to put its expansion plans on hold. Spicejet, a low-cost airline, reported huge accumulated losses in the financial year 2014 and was forced to cancel over 2000 flights by the end of the same year. Similar financial distress situations have led to several bankruptcies over the past ten years.

Air Carnival, stopped operating in April 2017. Air Costa closed operations in March 2017, because of financial difficulties. Air Pegasus went bankrupt in 2017 and Kingfisher Airlines, a major airline, was forced to stop operations in October 2012 when it was unable to pay its loans and liabilities. These airlines collapsed or were sold due to financial crunch, debt and mismanagement. India's private aviation industry has always been turbulent due to high costs, low profitability, intense competition and lack of scale

(Economic times, May 03, 2023). Currently, more than 145 aircraft are grounded in India due to engine issues and lack of spare parts availability from engine manufacturers (The Sunday guardian, May 14, 2023).

Like that of many predecessors, a very recent case of suspension of operations by a Low-cost carrier (LCC) has marked one more chapter in the sordid saga of the history of civil aviation industry in the era of liberalization in India. The owners of Go First airline (formerly Go Air) has decided to abruptly file for bankruptcy at the National Company Law Tribunal (NCLT) (The Hindu, May 18, 2023).

3. Indian Airline Companies That Have Ceased Operations In The Past

Owing to myriad of factors, Indian aviation sector has been a grim space for the aviation sector. In this section an attempt is made to give an overview of the Indian airlines that have been grounded because of failure to sustain operations due to financial distress and rising operational cost.

Go First airline became the latest airline to face financial crisis and shut down the operations. According to a report of the Indian express, as of April 2023, the total outstanding debt of the airline to lenders stood at ₹ 6,521 crore. Another Indian newspaper, The Sunday Guardian reports that, the airline has net negative revenue of ₹ 10,800 crore. In the last financial year of 2022-2023, Go First recorded its biggest ever loss of ₹ 1,808 crore, while the company has a negative net worth of ₹ 3,222 crore. Owing to this serious financial problem, the airline filed voluntary insolvency before National company law tribunal (NCLT).

Back in year 2019 Jetairways ceased their operations. The airline was the country's oldest private airline of the country. The airline shuttered its operation because it failed to compete with emerging low-cost carriers, such as SpiceJet and IndiGo. Other than this Air Odisha and Chhattisgarh Air Link were the two small airlines that ceased their operations in the same year.

in year 2017 four airlines viz., Air Carnival, Air Costa, Air India regional and Kairali airlines shutdown their operations, financial crisis being the major reason. The cost of operation was so high that within a short span of time their financial problems became very severe. Other than this, Air Pegasus, Easy Air, Jet Konnect, Air Mantra and Kingfisher Airlines were few other airlines that ended operations in year 2016, 2015, 2014, 2013 & 2012 respectively.

However, this is not the complete list of failed airlines, there are many more. But important here is to understand the fact, that Aviation sector is a cost intensive sector, each flight before taking off spends a huge sum of money in the form of operation cost, fuel prices, parking fees etc. The aviation sector is burning money as the operation cost are very high and when the operating revenue is not seeing the growth it was expected, how can airlines keep their business running with such high costs.

4. Research Objectives

- 4.1. To study the impact of Import dependency for crude oil, high prices of ATF on the operating cost of aviation industry.
- 4.2. To study the impact of rupee depreciation against the US Dollar on the cost structure of airlines
- 4.3. To study the impact of demand fluctuation and competition on the profitability of aviation industry

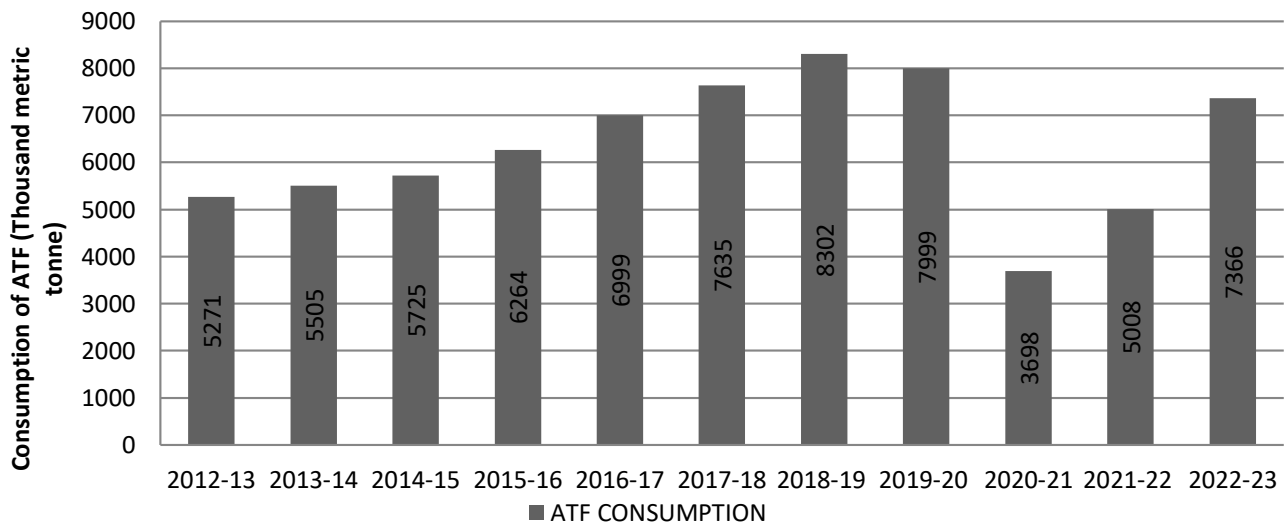
5. Research Methodology

Functioning of aviation sector in India is subject to government regulations. Directorate General of Civil Aviation (DGCA) from time to time publishes information related to the performance of civil aviation in India. Those published sources act as the basis of data collection for this research work. Proposed research work is exploratory in nature where by the motive is to explore the factors that contribute to financial distress of aviation industry in India.

The study is made with the help of secondary data. Published data related to the performance of civil aviation sector is available in the form of media reports, research papers, government records etc. those sources were surveyed to obtain relevant information. Besides this the annual reports of different airlines where studied to understand the operating cost and revenue of the industry.

6. Data Interpretation And Findings

6.1.1. Crude oil is an important raw material for today's world economic development. However, the distributions of production and consumption pattern of crude oil worldwide are very uneven. The U.S. Energy Information Administration reveals the data related to top producers and consumers of crude oil during year 2022. As per it the production of crude oil is concentrated mainly in United States (20%), followed by Saudi Arabia (OPEC) (12%) and Russia (11%). On the other hand, the consumption of crude oil is concentrated mainly in United States (21%), China (15%), and India (5%). From the data it is clearly visible that India is not among the top producers of crude oil but a top consumer of it. Owing to this reason India has become world's third-largest oil-consuming and importing nation. It imports 85 per cent of its crude oil needs from Middle East, Africa, United States and Russia. According to Handbook on Civil aviation statistics 2022-23, DGCA, there has been an increasing trend in the consumption of ATF which also means that the operating cost of airlines is also increasing.



Source: Handbook on Civil aviation statistics 2022-23, DGCA

Chart 1: consumption of ATF from 2012 to 2023

An important factor that affects the consumption of the ATF is its price. Due to import dependency and depreciation of rupee etc. the prices of ATF are high in India. It constitutes about 30-40 percent of the operational cost of the airline companies, any increase in its price increases the cost of operation of airlines.

The most effective way to combat the current price increase of ATF is to bring down the taxes. But given the revenue it generates for the state, it will be a compromise on the part of the states as it will reduce their revenue. Profitability of aviation industry in India is particularly vulnerable when one considers the following factors:

- I. The country is 85% dependent on imports to meet its oil needs.
- II. Jet fuel makes up for almost 40-45% of the running cost of an airline.
- III. Price sensitive customers.

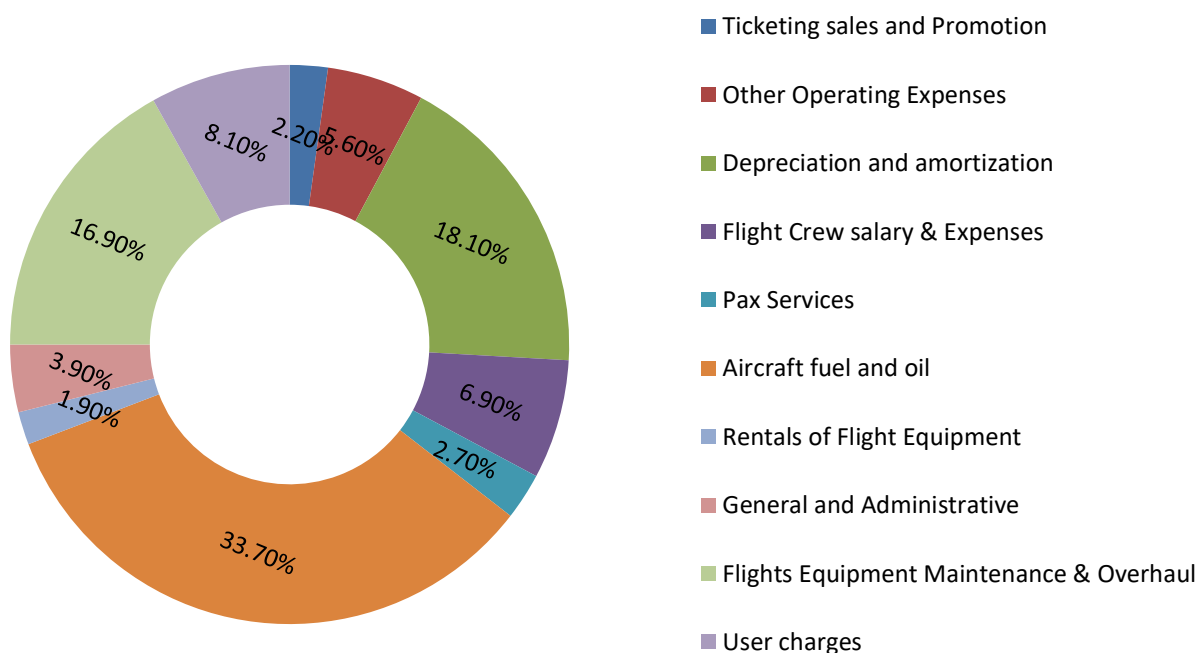
Considering the need of aviation sector for ATF, it is important to understand that high rate of VAT imposed by state governments adds to the price of ATF making it more expensive input. Consequently, government has been pressing for rationalization of VAT on ATF by respective state governments. Some states have already reduces the percentage of VAT as low as 1%, while some others are still charging VAT as high as 29%.

If states bring down the VAT levels on ATF, then not only will there be greater number of flights coming into the states but also there will be a higher amount of refuelling. For example after bring down VAT in J&K, Srinagar has experienced a 360% rise in refuelling. So the Laffer curve economic theory and economies of scale theory works that reduced tax rates will increases the revenues

6.1.2 Findings

- a The graph shows that the consumption of ATF has increased over the years.
- b About 85% of the crude oil needs of India are fulfilled by imports. Such a heavy import dependency can easily threaten by any crude oil supply disruption and make prices of petroleum product more volatile.
- c Owing to different rates of VAT imposed by states, price of ATF is not same across the country.
- d ATF is not covered under GST, so airline companies cannot get relief in the form of input tax credit (ITC).
- e By reducing the VAT on ATF, states can increase number of flights coming to the state.

6.2.1 There is a complex link between ticket price and airline profitability. there is actually not all that much money in the business compared to other industries because operations of airlines is subjected to the incurrence of high fixed cost, like airlines has to pay few charges to the Airports Authority of India(AAI) like air navigation, landing, parking etc. in order to use the airports. This high fixed cost increases pressure on the operating profit. There have been several incidences in the past where the airlines owe crores of rupees to the AAI which further increase pressure on their operating profit. Besides this, airlines are required to pay salaries to all the staff even when the demand is low. Airline staff, especially pilots, are highly paid they cannot be hired and fired at will because they are not easily available when needed.



Source: Handbook on Civil aviation statistics 2022-23, DGCA

Chart 2: Approximate cost structure of aviation industry in India, 2021-22

On the other hand, Rupee depreciation against the US Dollar makes the import of crude oil more expensive. The increasing prices of ATF could be attributed to many reasons one out of those is the depreciation of the Indian Rupee against the US Dollar. Depreciation of the rupee gives rise to higher imported input cost and thus higher imported inflation. Due to this import of crude oil also get expensive which give rise to higher ATF prices. The rise in price significantly impact the cost structure of airlines since ATF constitute about 30-40 percent of the operational costs of airlines.

Besides the payment for fuel other expenses such as aircraft lease payments, foreign debt and a substantial portion of aircraft and engine maintenance expenses, are also paid in US dollars. An increase in all of these expenses raises the operational expense of the aviation companies. Given the competitive

landscape of the domestic aviation industry, the ability of airlines to increase the fare in line with the increasing input costs can help to expand their profit margins.

6.2.3 Findings

- a Operation of airlines is subjected to the payment of high fixed cost.
- b When the value of rupee depreciates, imports of ATF becomes expensive, as a consequence its prices increase in the country, so the cost of operation of airline companies also increases.
- c Other expenses, like aircraft lease payments, foreign debt and engine maintenance expenses are also paid in dollars. So any depreciation in the value of rupee, impacts negatively to the aviation sector.
- d According to DGCA, fuel, oil, equipment maintenance and overhauling charges constitute about 50 percent of the operation cost of aviation industry.

6.3.1 A fluctuation in demand can be risky for any business all over the world. In aviation industry, demand elasticity is a major challenge. There could be many reasons for demand elasticity like, fluctuation in business activity, global disruptions such as conflicts and pandemics, fluctuation in the income level of households etc. any unfavorable change in these factors translates to immediate reduction in air travel. To understand the demand fluctuation the best example that can be cited are of the outbreak of Covid-19 pandemic in 2020 and Russia-Ukraine war in 2022. The data on domestic air traffic released by DGCA shows a negative annual growth of -56.29% and a negative monthly growth of -43.72%.

Every airline wants to have demand good enough to sell the tickets and earn profit. But in case of many airlines demand is less. According to DGCA, only Fly Big airline were operating at a Passenger load factor (PLF) higher than break-even load factor (BELF). PLF is an important tool to measure the performance of airlines. At a PLF lower than BELF the airline will incur losses and above it profit will be earned

Table 2: comparison of passenger load factor (PLF) and break-even load (BELF) -2021-22

Airline	BELF	PLF	Difference
Air India	85.6	70.4	-15.2
Air India Express	55.3	59.9	4.6
Alliance Air	71.1	59.8	-11.3
Air Asia	137.5	70.2	-67.3
Air Taxi	139.6	34.8	-104.8
Fly Big	41.5	51.1	9.6
Go Air	88.6	73.9	-14.7
Indigo	83.7	73.6	-10.1
Spicejet	106	79.2	-26.8
Star Air	84	73.5	-10.5
Vistara	88.2	71.1	-17.1

Source: Handbook on Civil aviation statistics 2022-23, DGCA

A higher PLF indicates that an airline is successful in selling available seats. However, higher PLF may not result in higher operating profit. When BELF is more than PLF, the airline in question is suffering losses.

Due to intense competition, Cost of operation can often mount to unmanageable levels. It is not easy to attract customers they always seek low fares and offering low fares will bring losses. In Indian market customer is very price sensitive, it's not easy to persuade them to pay extra for better amenities and services. On the other hand raising fares can bring down the sales. Owing to such challenges most of the private airlines in India have closed within five years of operation. The following table shows operating losses of the industry over years.

Table 3: year wise financial summary of scheduled indian airline operators.

Financial Year	Operating Revenue (₹)	Operating Expenses (₹)	Operating Result (₹)
2017-18	921,457.5	912,324.8	9,132.7
2018-19	811254.4	811254.4	(67094.2)
2019-20	9,89,047.03	10,44,385.41	(55,338.38)
2020-21	395,202.44	543,917.04	(1,48,714.60)
2021-22	6,63,009.45	7,94,895.46	(1,31,886.01)

Source: DGCA

6.3.2 Findings

- a Indian aviation sector has been suffering losses for many years.
- b There is a high competition in the industry, especially due to the entry of Low-cost carriers (LCC) .
- c Given the current situation, it is very difficult to reach the breakeven position for many airlines in the country. Data from DGCA shows that other than few exceptions, nearly all the airlines are suffering operational losses.
- d Majority of airlines are operating at a Passenger load factor (PLF) higher than break-even load factor (BELF).

7. Suggestions

- 7.1 Till now, ATF has not been covered under GST, but there is a strong need to include it. If included under GST, there will be uniform tax for all states, airliners can also claim input tax credit on it, the benefit of which can also be transferred to the consumer in the form of reduced ticket price.
- 7.2 Weak infrastructure for civil aviation industry is seen as a hindrance in its growth, with the increase in air traffic more flights and related infrastructure is needed. As the world's fastest-growing economy, civil aviation infrastructure needs investment in the form of latest system of air traffic controllers, new airports, new flying schools and more regulators.
- 7.3 According to CAPA outlook for 2023-24, about 100 planes of various Indian carriers are on ground due to supply chain issue. In a recent report, Financial Express writes that, "Nearly 110 aircraft or 15% of India's total fleet across four airlines - Air India, SpiceJet, GoAir, IndiGo - are grounded for want of maintenance or engine replacements". So, necessary steps are needed to solve the supply chain issue in Civil Aviation sector.
- 7.4 About 16 percent of the revenues are spend by airlines towards repairs and maintenance. More maintenance, repair and overhaul (MRO) facilities should be provided domestically so that foreign dependence can be reduced. This will bring down the maintenance cost of airlines and that again will have a ripple effect on passengers.
- 7.5 Shortage in the availability of pilots and also in cabin crew is likely to create a scarcity of supply to meet the expected demand. Hence the measures must be taken to ensure their required supply. There is also a need to collaborate the efforts of original equipment manufacturers (OEMs), industry and educational institutes to assimilate the management practices and latest technology in the aviation industry.

8. Conclusion

After performing this research work it was studied that the aviation sector came under serious financial pressure during the spread of Covid-19 pandemic. Airlines in India reported huge financial losses after the suspension of air travel in March 2020. However, many airline companies were suffering financial stress even before the spread of pandemic affected the air travel. Due to severe financial stress, many airlines have exited the market. Currently, in India about 145 aircrafts are grounded due to lack of spare parts availability and engine issues. This constitutes about 22% of the total aircraft fleet available in the country, this leads to further slump in the growth of the aviation industry in India.

A study into the factors that makes the functioning of aviation sector difficult reveals that there are few issues, which if checked, can put the industry into profitable tracks. Like if ATF is covered under GST than uniformity in tax rate can be achieved and operating cost of the airline companies can be reduced, foreign dependence for MRO if reduced can save the revenue of the airlines etc.

A study of the financial statement of airlines reveals that many airlines are running into losses for many years, turning them profitable is a challenge. Considering all the aforementioned factors, it can be concluded that import dependency for crude oil, high prices of ATF, imposition of VAT on ATF by state governments, demand fluctuation, depreciation of Indian rupee against dollar, high fixed cost of operation are the main issues which are faced by the civil aviation sector.

References

- Mahtani, U. S., & Garg, C. P. (2018). An analysis of key factors of financial distress in airline companies in India using fuzzy AHP framework. *Transportation Research Part A: Policy and Practice*, 117, 87-102.
- Shome, S., & Verma, S. (2020). Financial distress in Indian aviation industry: Investigation using bankruptcy prediction models. *Eurasian Journal of Business and Economics*, 13(25), 91-109.
- Sajal Ghosh, Import demand of crude oil and economic growth: Evidence from India, *Energy Policy*, Volume 37, Issue 2, 2009, Pages 699-702, ISSN 0301-4215, <https://doi.org/10.1016/j.enpol.2008.10.021>.
- Singh, Rahul. "India's Russian oil imports highest ever, makes up for 25% of all oil import". *Hindustan Times*, Jan 15, 2023, URL: <https://www.hindustantimes.com/business/indias-russian-oil-imports-highest-ever-makes-up-for-25-of-oil-import-101673776679684.html>
- Chandrasekhar, C.P. "Go First filing for bankruptcy raises questions about 'open skies' policy", *Frontline*, The Hindu, May 18, 2023, URL: <https://frontline.thehindu.com/columns/economic-perspectives-c-p-chandrasekhar-another-one-gone-as-go-first-files-for-bankruptcy/article66841312.ece>
- Online, ET. "From ModiLuft to Jet, the Indian airlines that couldn't stay afloat", *The Economic Times*, May 03, 2023, URL: https://economictimes.indiatimes.com//industry/transportation/airlines-/-aviation/from-modiluft-to-jet-the-indian-airlines-that-couldnt-stay-afloat/articleshow/99963900.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Online, ET. "Five reasons why private airlines fail so often in India", *The Economic Times*, May 03, 2023, URL: https://economictimes.indiatimes.com/industry/transportation/airlines-/-aviation/five-reasons-why-private-airlines-fail-so-often-in-india/articleshow/99959908.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Pant, Manish. "Aviation Sector Heats Up With Competition as Akasa Air, Jet Airways Prepare for Take-Off", *Business Today*, 26, June, 2022, URL: <https://www.businesstoday.in/magazine/corporate/story/aviation-sector-heats-up-with-competition-as-akasa-air-jet-airways-prepare-for-take-off-337112-2022-06-10>
- Press Trust Of India. "Not easy for airline to turn profitable in India, says IATA official", *Business Standard*, Jun 19 2022, URL: https://www.business-standard.com/article/companies/not-easy-for-airline-to-turn-profit-in-india-says-iata-official-122061900860_1.html
- PTI. "Indian airlines, "airports saw financial losses worth Rs 22,400 cr in FY 2020-21", *The Economic Times*, Aug 05, 2021, URL: https://economictimes.indiatimes.com/industry/transportation/airlines-/-aviation/indian-airlines-airports-saw-financial-losses-worth-rs-22400-cr-in-fy-2020-21/articleshow/85068983.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- M. George Mathew , M. Pranav, "Jet Airways grounded as lenders refuse bailout, 16,500 jobs up in the air", *The Indian Express*, April 18, 2019, URL: <https://indianexpress.com/article/business/banks-reject-rs-400-cr-emergency-funding-for-jet-airways-report-5680803/>
- Times of India, "3 attempts, 20 years: Why government was able to sell Air India this time", *The Times Of India*, oct, 08, 2021, URL: http://timesofindia.indiatimes.com/articleshow/86870568.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

- BBC, "Air India: Struggling national carrier sold to Tata Sons", BBC, Oct 08, 2021, URL: <https://www.bbc.com/news/world-asia-india-58778274>
- Sharma kiran, "Modi to put loss-making Air India back on the auction block", Nikkei Asia, January 23, 2020, URL: <https://asia.nikkei.com/Business/Transportation/Modi-to-put-loss-making-Air-India-back-on-the-auction-block>
- Singh Sumit, "What went wrong with Kingfisher Airlines?", Simple Flying, oct 20, 2020, URL: <https://simpleflying.com/what-went-wrong-kingfisher-airlines/>
- Mondal, Dibyendu. "India's aviation market gets hit by turbulence", The Sunday guardian, May 14, 2023, URL: <https://sundayguardianlive.com/business/indias-aviation-market-getshit-by-turbulence>
- SARAVANANA, P, W. PAUL. "Go First's bankruptcy disrupts airline industry". Business Line, May 30, 2023, URL: <https://www.thehindubusinessline.com/opinion/go-firsts-bankruptcy-disrupts-airline-industry/article66913097.ece>
- Handbook On Civil aviation statistics 2022-23, DGCA
- Express Web Desk, (June 21, 2023). Go First extends suspension of flights till Sunday. The Indian Express. <https://indianexpress.com/article/business/aviation/go-first-extends-flights-suspension-till-june-25-8677152/>

