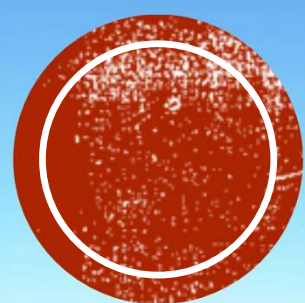


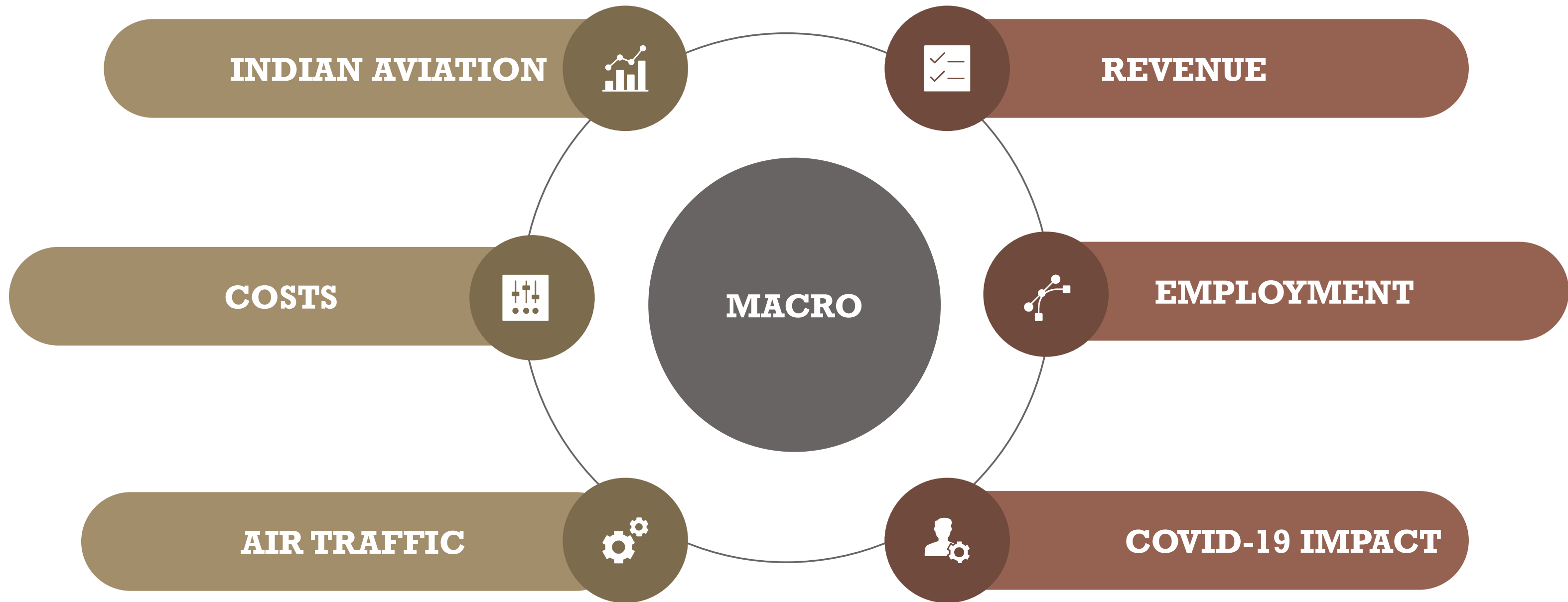
AVIATION INDUSTRY – ECONOMIC ANALYSIS





THE AVIATION INDUSTRY

• Domains Considered •



ABOUT AVIATION INDUSTRY



- Aviation includes all activities surrounding the aircraft industry.
- More than 4.5 billion passenger travels occurred in 2019.
- The aviation industry supports more than 88 million jobs worldwide.
- The industry combined generates more than \$700 billion.
- Amount contributed to GDP on average by aviation sector is 4.3 times higher than other sector



INDIAN AVIATION INDUSTRY



- Indian aviation industry is projected to become 3rd largest in the world by 2024.
 - Increasing demand and cost affordability fleet is projected to quadruple the air fleet in size to approximately 2500 airplanes by 2038.
-
- India has 125 operational airports out of which 29 are international, 86 domestic and 10 custom.
 - Govt. of India has aimed to develop 100 airports by 2024 (under UDAN scheme) and also are expected to invest about \$1.83 billion in development of infrastructure by 2026.
 - The MRO (Maintenance, Repair & overhaul) market has also seen allied growth and current market of \$900 million is expected to surge to \$4.3 billion by 2025, increasing at a CAGR of about 14-15%.



Revenue Sources



Passengers Level 1

Common passengers using air services as utility, accounting most to economy class



Passenger Level 2

Business travelers account for 12% percent of airlines' passengers, but they are typically twice as lucrative – accounting for as much as 75% of profits.



Services

Providing services like cargo, shipping, as well as bank partnered schemes like Credit card plans and frequent flyer plan also add to revenue.



Food & Services

Optional yet crucial services like in plane food ,WI-FI connectivity as well as movie watching plans.



REVENUE STATISTICS

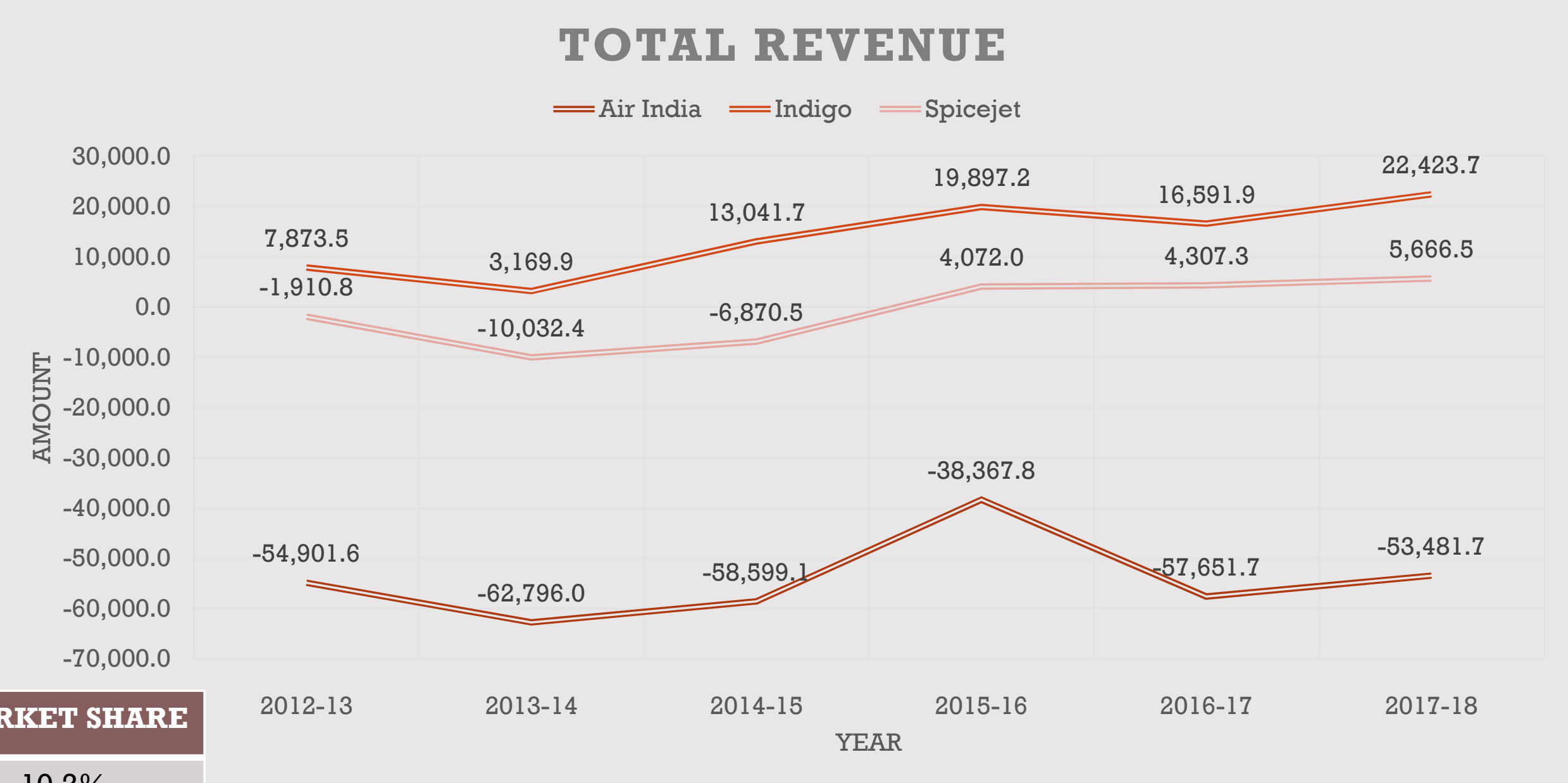
Analysis using top 3 aviation service providers in India accounting about 77% market share

$$\text{Profit} = \text{Revenue} - \text{Costs}$$

FINANCIAL ITEM	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
OPERATING REVENUE (in million Rs)						
AIR INDIA						
Total Operating Revenue	160,721.1	190,934.9	206,131.6	199,923.3	218,596.1	230,036.7
Total Operating Expenses	198,349.9	223,488.5	226,854.4	198,873.3	215,615.9	246,617.4
NET PROFIT OR LOSS(-) (Before Income tax)	-65,119.4	-68,929.9	-59,058.4	-37,579.0	-49,179.4	-53,377.4
Profit or loss after tax and after extra ordinary items	-54,901.6	-62,796.0	-58,599.1	-38,367.8	-57,651.7	-53,481.7
INDIGO						
Total Operating Revenue	92,030.8	111,165.8	139,253.4	161,399.1	185,805.0	230,208.9
Total Operating Expenses	84,073.0	108,467.0	123,578.6	136,370.7	168,897.0	204,442.5
NET PROFIT OR LOSS(-) (Before Income tax)	9,932.2	4,777.4	18,465.2	28,289.5	21,443.4	31,266.8
Profit or loss after tax and after extra ordinary items	7,873.5	3,169.9	13,041.7	19,897.2	16,591.9	22,423.7
SPICEJET						
Total Operating Revenue	56,006.8	63,042.3	52,015.3	51,517.7	61,912.7	77,950.9
Total Operating Expenses	58,805.0	73,036.8	60,885.0	47,735.1	58,465.9	72,735.7
NET PROFIT OR LOSS(-) (Before Income tax)	-1,910.8	-10,032.4	-6,870.5	4,072.0	4,307.3	5,666.5
Profit or loss after tax and after extra ordinary items	-1,910.8	-10,032.4	-6,870.5	4,072.0	4,307.3	5,666.5



REVENUE STATISTICS -GRAPHICALLY



AIRLINE	MARKET SHARE
AIR INDIA	10.2%
INDIGO	53.9%
SPICEJET	13%

Note on AIR INDIA →
Majorly owned by the state , till the year 2017 , after which privatization started



REVENUE TREND

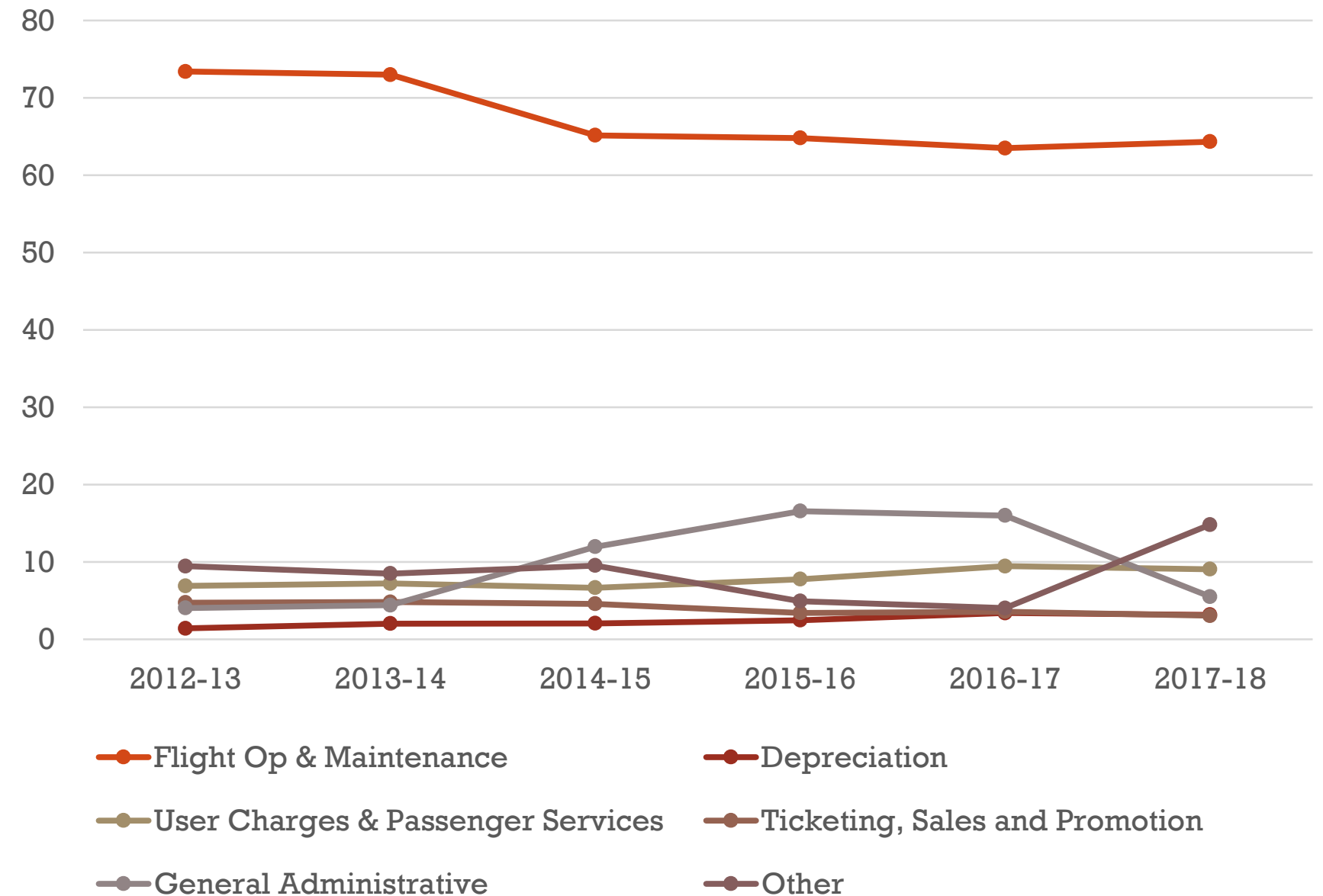
- Revenue has increased over time.
- In India, being profitable is a very hard task. Considering failed ventures of The Jet airways, Kingfisher airlines and Sahara airlines, Indigo is only the firm that has remained profitable in all of its life time.
- The state-run Air India has always taken huge loses in the last decade and is functional only because it is a government venture thus is never short of fund.
- However, considering huge loses , the firm is now open for privatization and stakes are available for sale.



COSTS

- *Flight Operations & Maintenance*
- *Depreciation*
- *User Charges & Passenger Services*
- *Ticketing , Sales and Promotion*
- *General and Administrative*
- *Other Expenses*

Trend of Cost Factors per year in Indian Aviation Sector



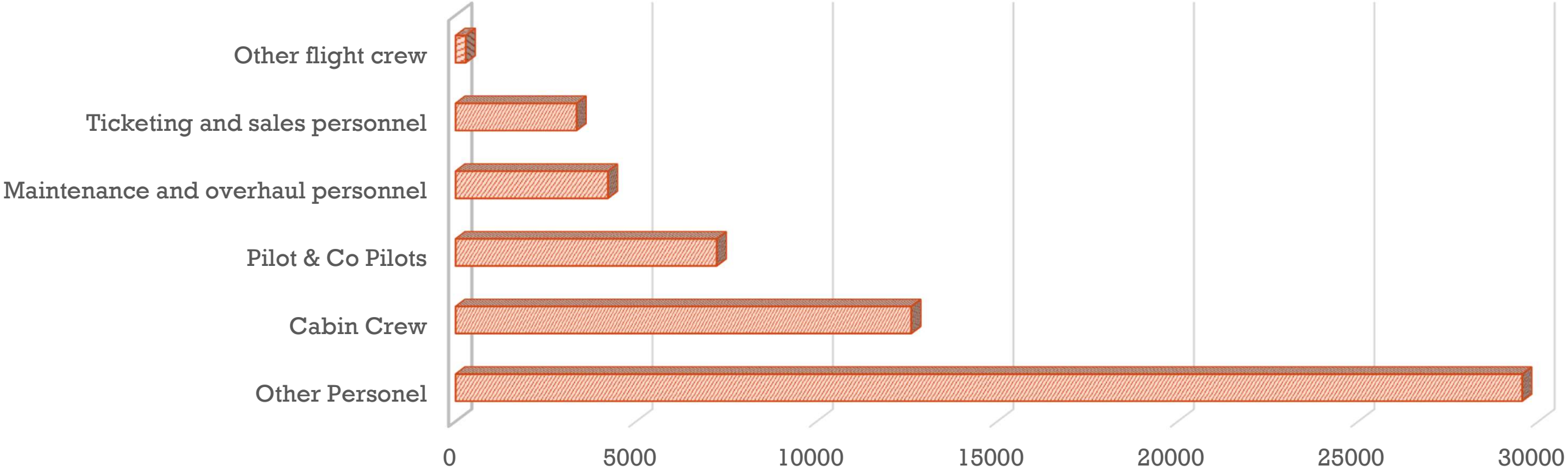
- *Expressed in percentage of total revenue*
- *Data concluded via consideration of only the major firms operating*



EMPLOYMENT

EMPLOYEES

Employees



	Other Personel	Cabin Crew	Pilot & Co Pilots	Maintenance and overhaul personnel	Ticketing and sales personnel	Other flight crew
Employees	29549	12619	7230	4219	3349	280

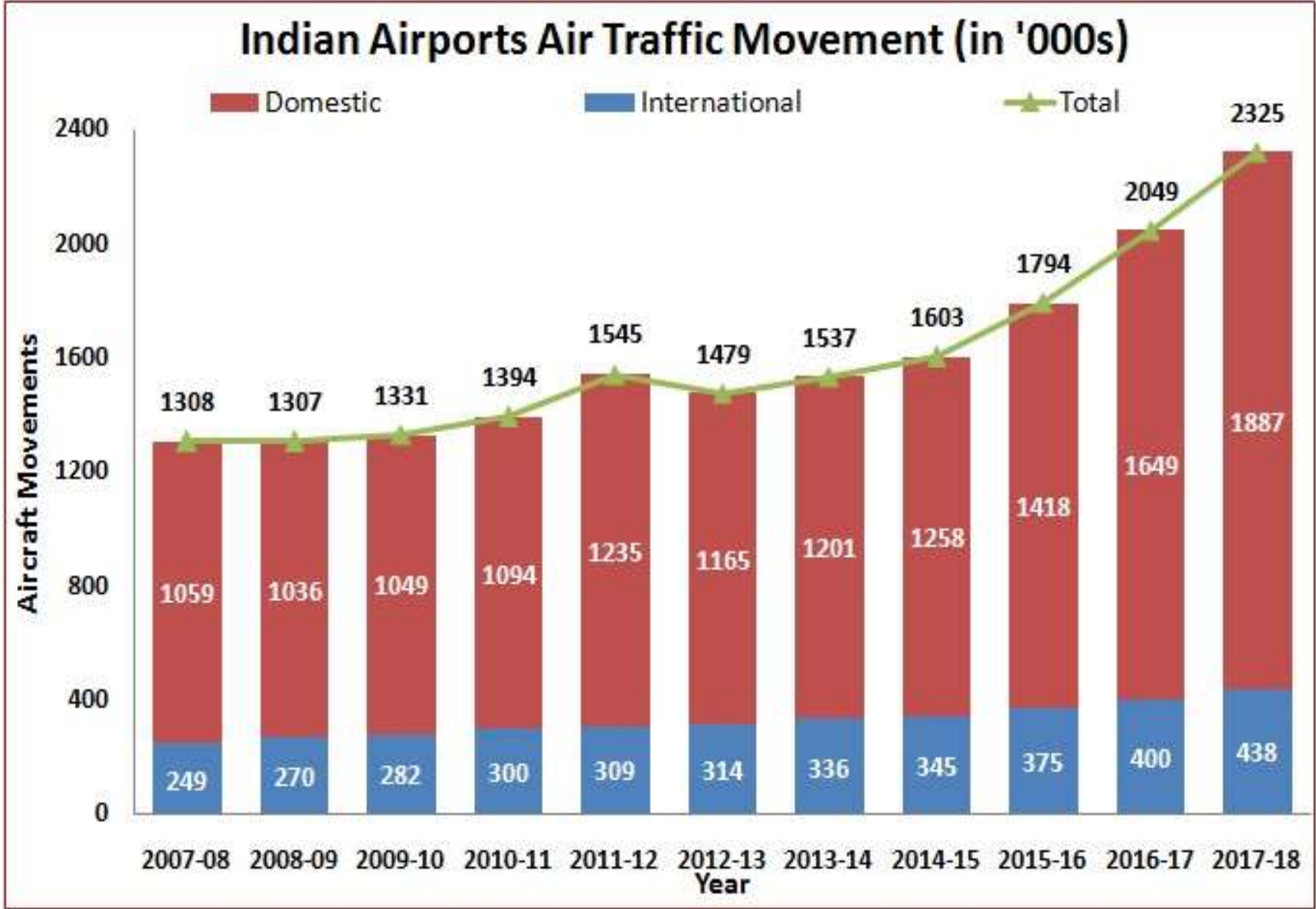


COST & EMPLOYMENT

- The major cost has always been flight and maintenance, comprising more than 70% of all costs.
- However, the costs for the industry has seen a paradigm shift. It is now known, that pouring more money into flight operations will not yield more profits in such a highly competitive industry.
- In recent times, when flight operations have been banned (year 2020), the industry's sources of income are combined sources other than flight & maintenance.
- The management and allied part of employment is much higher than the required flying component of industry.
- The industry has seen so many failed ventures in the past , that job security is not a main incentive. In order to attract employees the pay grade is higher in the industry as compared to other travel industries.



AIR TRAFFIC



Air traffic in India has almost doubled between 2007 & 2019.

Projected upward trend goes hand in hand with decrease in cost of tickets and increase in number of passengers.



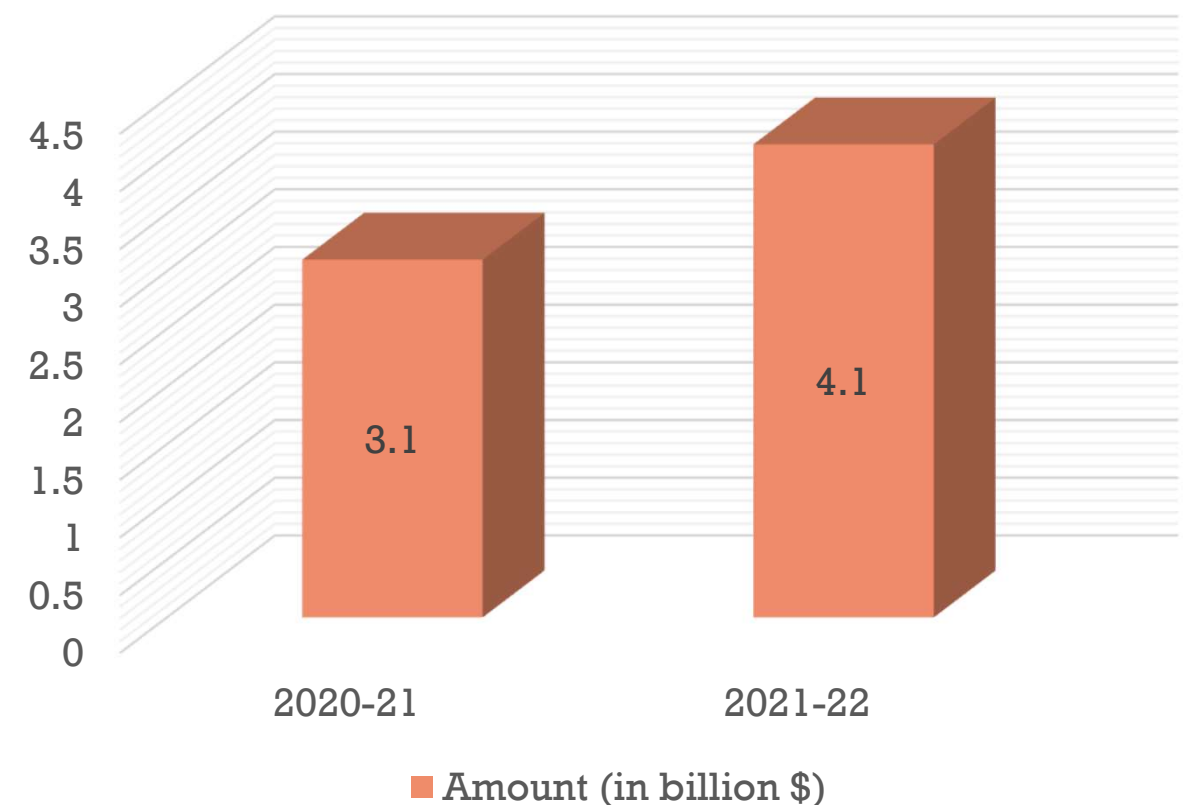
COVID-19 IMPACT

Covid-19 related travel restrictions were imposed on 25th march 2020. Started with complete termination of all domestic as well as international flights except the state run special 'Vande-Matram' flights.

Key statistics based on study by 'Centre for Asia-Pacific Aviation (CAPA)', [Aviation consultancy & Research firm]

- ❑ Operating Income decline – 6.1% (Rs 8400 crore)
- ❑ Operating Loss – Rs 1700 crore
- ❑ Net Loss – Rs 5400 crore
- ❑ Cash Loss for sector – Rs 3500 crore in FY2021 (expected)

Loss in Indian Aviation Industry
(in billion \$)



CONCLUSION ABOUT INDIAN AVIATION

- Aviation industry will have to postpone capital investment and reduce operational costs. Also, the industry will have to reduce other costs and have to limit recruitments to only critical recruits only. The will also have to work with suppliers with cost cuts.
- Also, the aviation sector will have completely rethink and invent new strategies in order to stay in business , majorly focusing on non-aviation earnings as, current scenario of pandemic implies that the hit will remain for more than a few years as suggested by many studies.

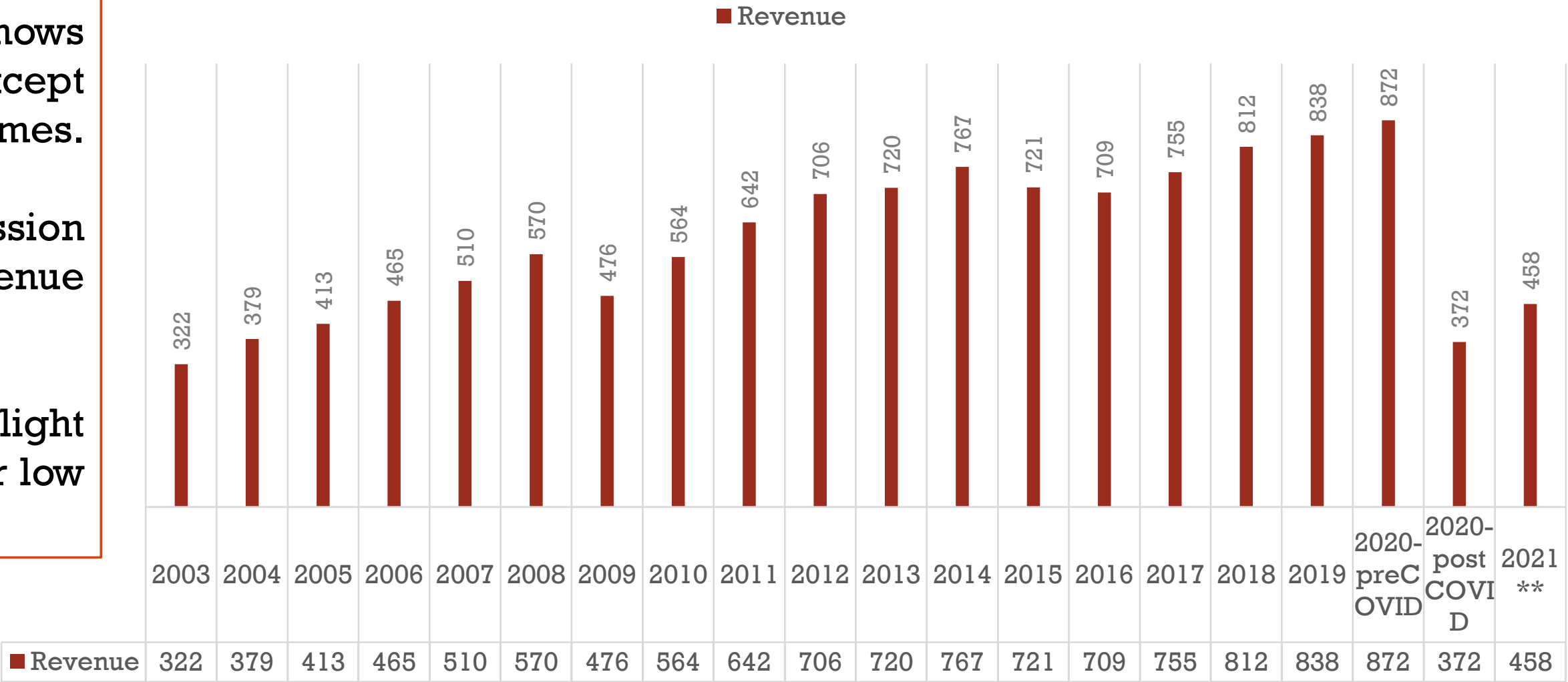


A LOOK AT ECONOMICAL SIDE OF INTERNATIONAL INDUSTRY

REVENUE

The revenues per year shows an increasing trend , except for 2008 and Covid times.

- The great recession accounts for low revenue in 2008 .
- International flight restriction accounts for low revenue post 2020.





THE CASE OF JET AIRWAYS



ABOUT JET AIRWAYS

- ❑ Founded and owned by Naresh Goyal. Jet Airways was the largest privately owned airline in India.
- ❑ Started operations on April 1, 1992, it commenced its first flight on May 5, 1993, and the last trip on April 17, 2019 .
- ❑ A fleet of 117 aircrafts comprising Boeing 737, and ATR 72-500
 - ❑ Only private airline with operations on international routes
 - ❑ Known for superior consumer service and experience.



Naresh Goyal



DECISIONS IN BUSINESS CYCLE - I

- In 2002, the airline's deal for 10 aircraft at Farnborough air show of \$520 billion couldn't be made because lack of money.
- Govt. opened private carriers for international flights in 2003, Jet Airways started operations in 2004, and also went public.
- Etihad bought 49% stake in Jet , Goyal owned 51% and stopped Jet from lacking funds. In 2005, IPO was launched and it raised about \$19 billion.
- In 2006, Jet Airways tried to acquire another failing airlines, Air Sahara for \$500 million but negotiations failed, however they did so for \$200 million in 2007. Air Sahara was rebranded as JetLite for the middle-class segment.
- They also collaborated with Kingfisher airlines for frequent-flyer program , sharing the crew and ground-handling equipment and also code-sharing for flights.



DECISIONS IN BUSINESS CYCLE - II

- They also launched Jet Konnect, another low-cost brand comprising of ATR 72 and Boeing 737 which operated on profitable routes and with higher loaded passengers in 2008.
- It was very clear that Jet Airways, although being operational could not sustain any profitable model, which is clearly illustrated from their revenue statistics.
- In 2009-10, Jet Airways became the first airlines to stop allowing liquid drinks bought by passenger and force them to use the ones provided by them, they also banned meat products on the airline.
- Jet Airways laid-out over 1900 employees, however govt of India intervened and overturned the decision.

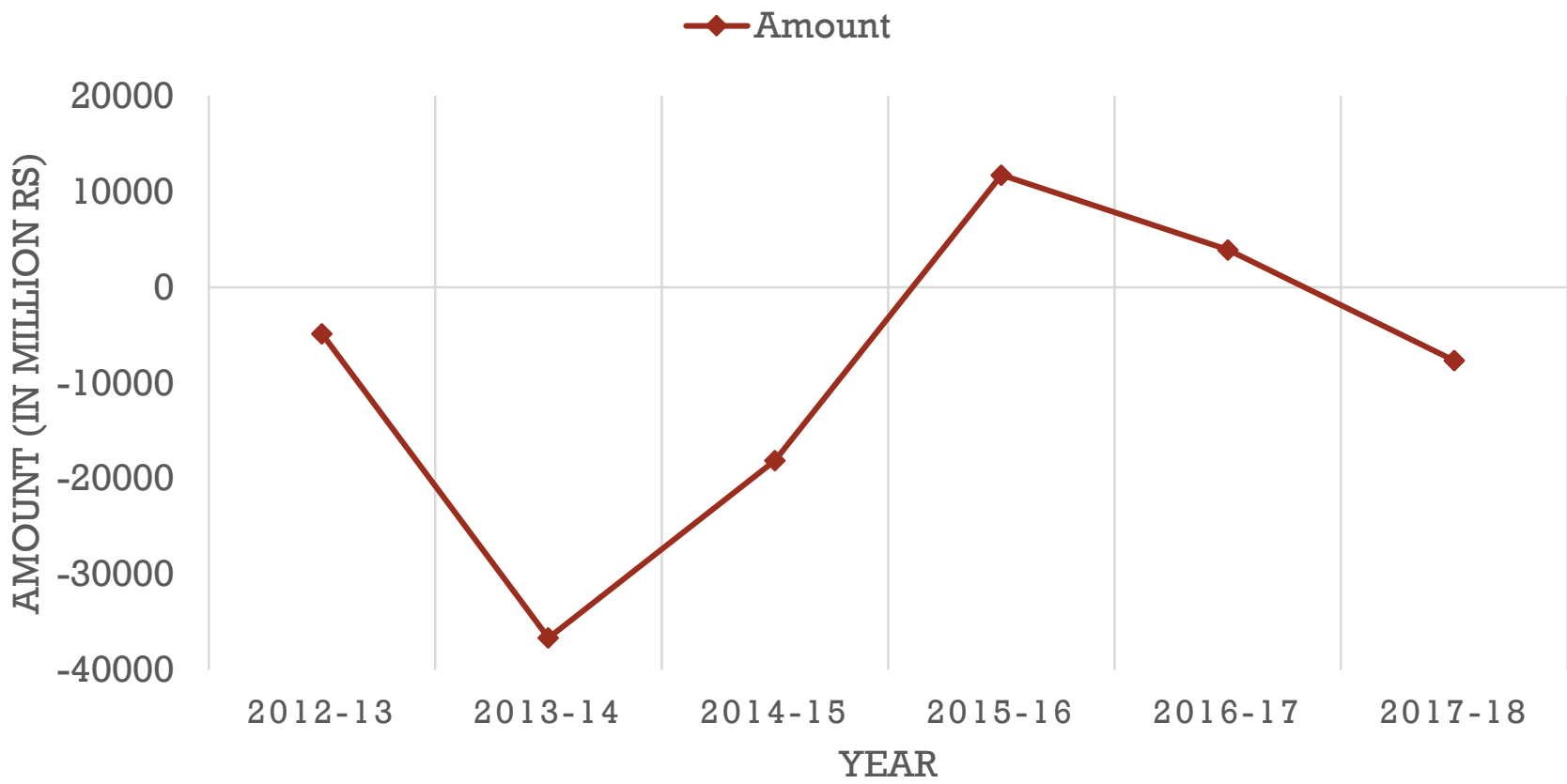


REVENUE

Statistics shows that Jet Airways has posted very high losses consistently since the late 2000's.

These loses are very severe for a private firm for surviving in business.

PROFIT & LOSS



FINANCIAL ITEM	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Total Operating Revenue	170916.4	172325.1	195606.0538	211117.713	212576.653	232570.416
Total Operating Expenses	169690.411	201072.5	215030.0971	199085.387	212070.032	239784.518
NET PROFIT OR LOSS(-) (Before Income tax)	-4854.16	-36678.5	-18135.88017	11735.632	3908.338	-7669.711
Profit or loss after Income Tax	-4855.36	-36678.5	-18137.08017	11735.632	3904.55	-7676.19



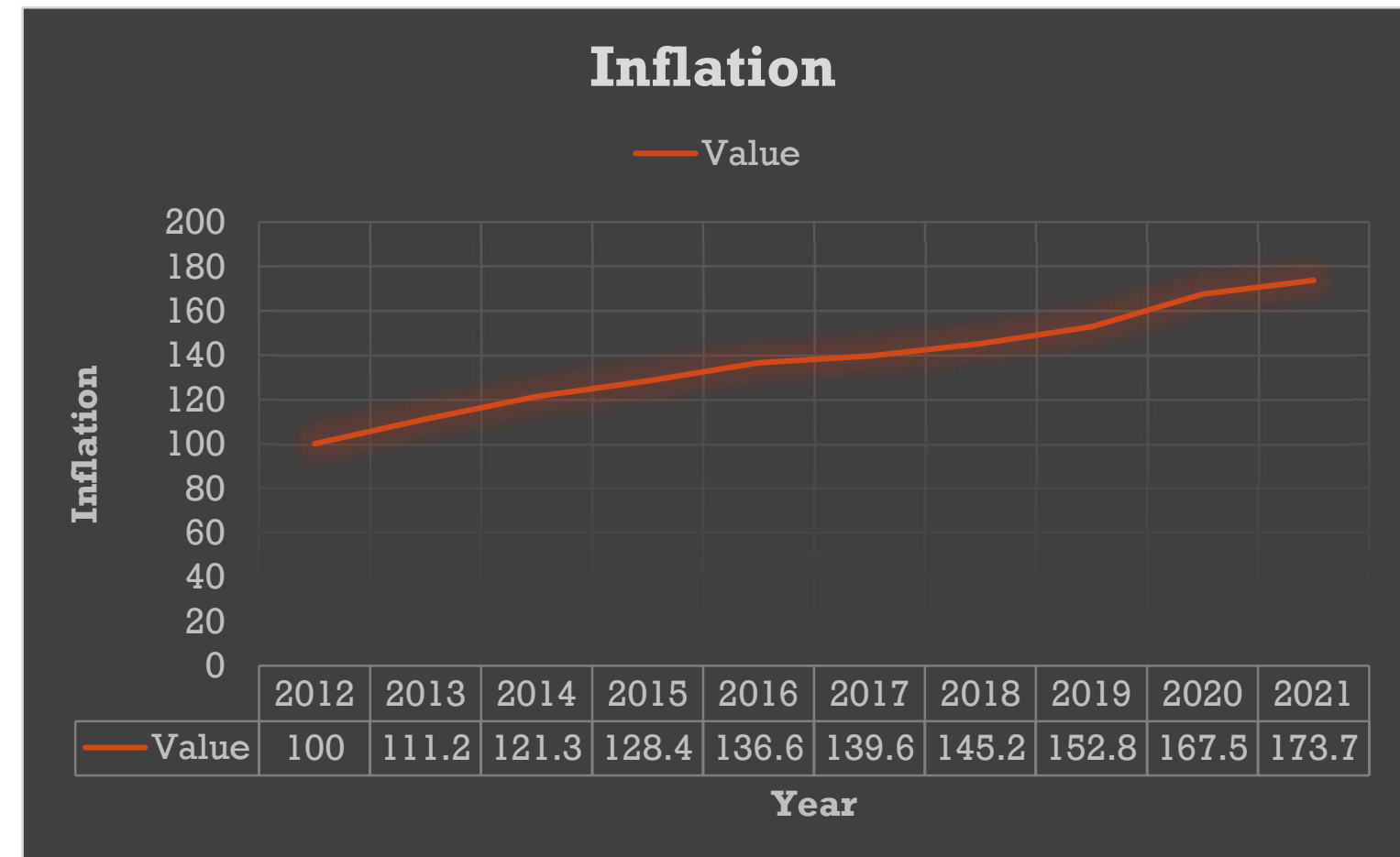
PARADIGM SHIFT

- Indian aviation industry experienced a paradigm as well as a demand shift.
- New airlines emerged, and provided service to a new and larger consumer group, the middle class. Jet Airways till then, was considered to be of use to only high class and upper middle-class groups of the society.
- SpiceJet and Indigo entered the domain with seats for middle class with very minimal leg space, no in-plane food and limited services.
- For most of the domestic flights which were at max of 3-4 hrs., this trade off was acceptable by the masses and thus demand shifted towards the newer and cheaper air services.



THE FALL

- During the same time, prices of crude oil rose and value of rupee fell.
- Jet Airways posed loss for 8 years straight.
- In 2017, the airline decided to cease operations due to lack of fund to continue further operations.
- Mr. Naresh Goyal and his wife Mrs. Anitha Goyal resigned from Board of Directors.
- When, Tata Group wished to step in and buy stakes to redeem the airline, Mr. Goyal refused to let go from his position in Board , and the deal didn't happen.
- Every chance to save the airline was lost, and it had to shutdown.



Inflation chart – From 2012-2021
(2012 taken as base year)

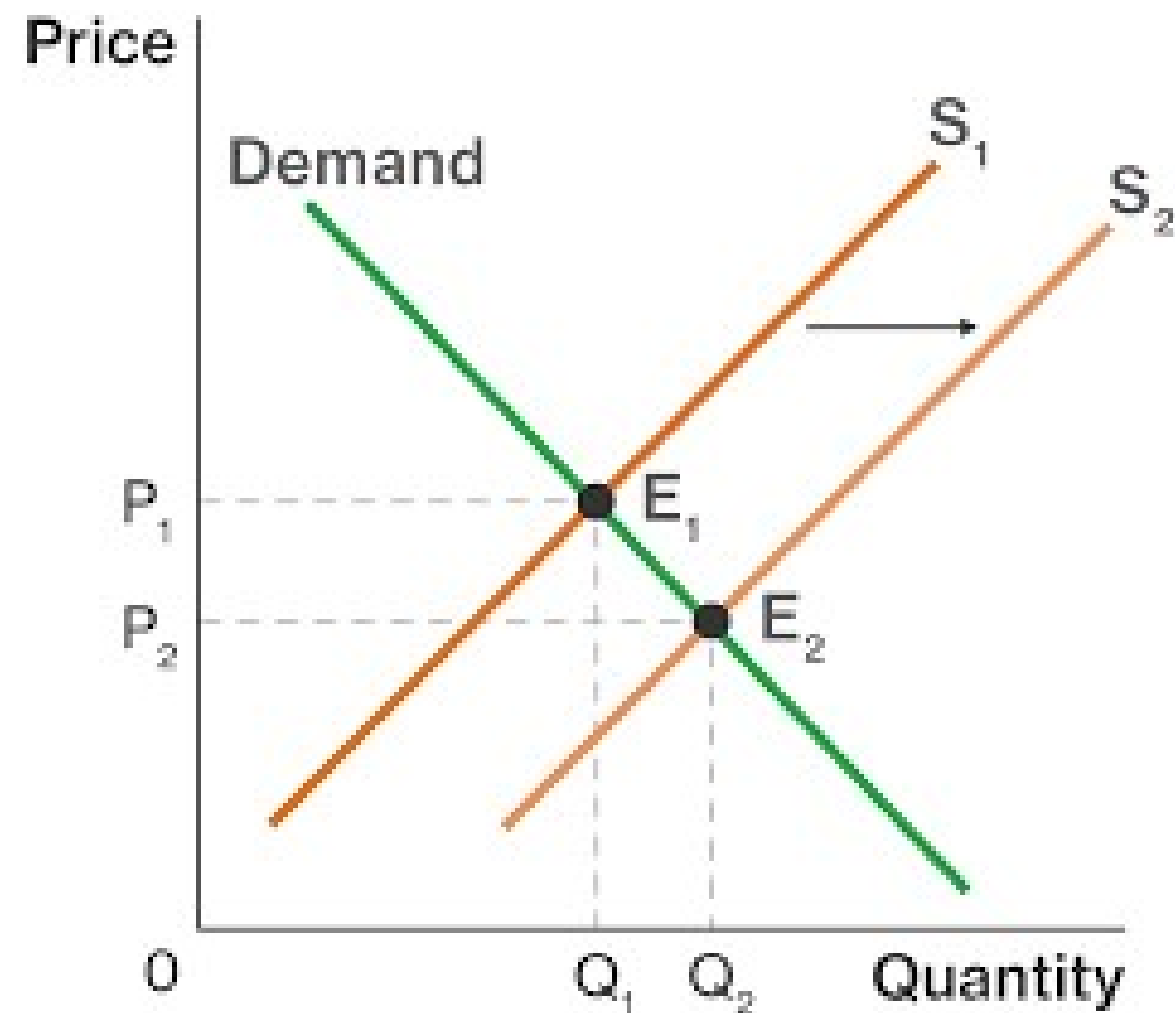


THE AFTERMATH

- Indian Oil Corporation stopped providing oil to airline for non payment. Lenders in 2018, also rejected pleas for Rs 4 billion funding and ceased operation.
- Membership with IATA was suspended. Partners Etihad Airways and Hinduja also didn't buy it off.
- PNB, SBI, National Investment & Infrastructure fund (NIIF) were asked to buy 1/3 stake in the airline as to find some investor and save it , however these attempts failed.
- Finally, all creditors seized all operations due to non-payment , Jet Airways finally filled for bankruptcy.



ECONOMIC ASPECTS – A SUPPLY SHIFT



- ❑ The newer airlines increased the number of passengers especially, the middle class group.
- ❑ They did so , by decreasing the price per ticket.
- ❑ Jet Airways however stayed on the old model for quite to long, thus suffered loses while adjusting itself to the new model



CONCLUSION FROM THE JET AIRWAYS STORY

- The prime reason for the failure of Jet Airways was that it could not understand the demand from consumer side quite well. They continued on their old model for high class service for quite long where the industry had shifted to more economic model.
- Also, when steps were taken to change the model, the steps were taken in expansionary vision i.e, before rectifying problems within the model, Jet Airways bought several other ventures to compile them in the newer model.
- Jet Airways depleted its monetary resource in expansions although being non-profitable to sustain such growth.
- The response from Jet Airways also provided very poor and yet brutal decision like banning liquid beverages including water bought by passengers and banning certain items along with meat , tarnished their brand value.

THE FUTURE OF JET AIRWAYS

- The Kalrock-Jalan consortium will now own 90% of the revived Jet Airway.
- Investment of ₹1,375 crores (\$184.8mn) has been made initially.
- Public shareholders will only receive one share for every hundred.
- Owners like Etihad will lose preferential shareholding.
- Creditors who are owed over \$1 billion, are taking a 95% haircut on their dues, but will receive ₹185 crores (\$24.8mn) within six months.
- The airline is making a comeback in upcoming years, and it is important for them to learn from the mistakes.
- Covid times are difficult already, it is essential to adopt a profitable model.



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