

To What Extent the Strategies Implemented by Indigo Airlines Helped to Reduce the Impact of The Crisis Due to Supply Chain Issues?

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Abstract:

Indigo, one of the largest and the most preferred airlines in India, with the philosophy to offer courteous and hassle free travel experience, affordable flight and flights on time, with its fleet of more than 300 planes and operating 1800 flights daily had been in news for supply chain issues. To overcome the supply chain issues Indigo's Management implemented strategies to reduce the impact of crises. The essay will analyse if IA (Indigo Airlines) could reduce impact of crisis leading to Research Question: To what extent the strategies implemented by Indigo airlines helped to reduce the impact of crises due to supply chain issues? under the concept of Change. Change refers to modification in the way business is conducted as a response to internal and external factors. Change arises when factors that influence the operations of the organization do not stay the same. This process should be managed carefully ("Attention Required!"). The essay will look into, if IA's response could reduce the impact crisis of supply chain in response to the change in external factors.

Introduction:

Indigo, one of the largest and the most preferred airlines in India, with the philosophy to offer courteous and hassle free travel experience, affordable flight and flights on time, with its fleet of more than 300 planes and operating 1800 flights daily had been in news for supply chain issues.

Indigo lost its capacity after grounding 70 planes in its fleet either waiting for spare parts due to supply chain issues or undergoing inspection carried by Pratt & Whitney who recalled hundreds of PW1100G engines, which stems from the defect of powder metal used to make the engines for A320 aircrafts, a flaw that can cause cracks in engine (SD1)

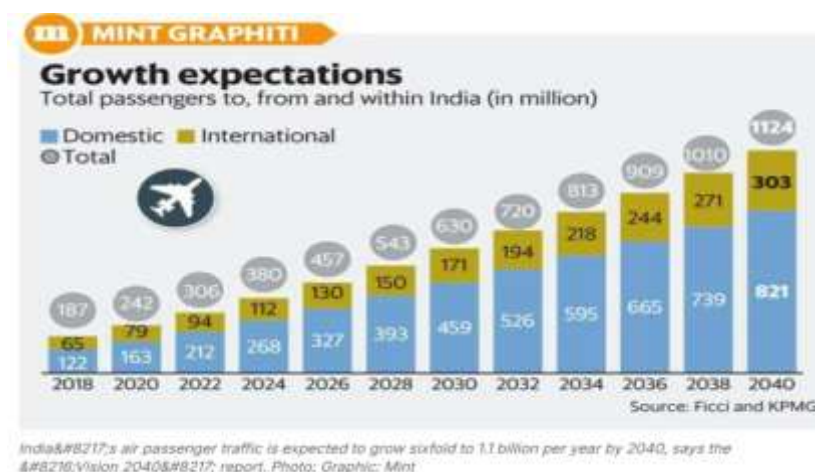


Fig 1: Expected growth in Indian commercial market (Kundu)

Indian commercial Aviation market is expected to grow by 20.26% in 2026 in comparison to 2024, further will increase by 195.79% in 2040 as shown in Fig1. Indian market promises tremendous growth opportunities. It is a must for Indigo to sort supply chain issues to take advantage of the growing market. To overcome the supply chain issues Indigo's Management implemented strategies to reduce the impact of crises. The essay will analyse if IA (Indigo Airlines) could reduce impact of crisis leading to Research Question: **To what extent the strategies implemented by Indigo airlines helped to reduce the impact of crises due to supply change issues?** under the concept of **Change**

Change refers to modification in the way business is conducted as a response to internal and external factors. Change arises when factors that influence the operations of the organization do not stay the same. This process should be managed carefully ("Attention Required!").

The essay will look into if IA's response could reduce the impact of supply chain crisis in response to the change in external factors.

Methodology:

The data will be collected through secondary sources, care is taken to collect information from varied sources which include research papers, newspaper articles, company's published reports and websites. However, secondary data may not be accurate and outdated.

Tools used are appropriateness of crisis management used by AI, infographics and Ratios.

Analysis:

As soon as the issues with P&W engines were disclosed to IA in 2023, AI started disclosing their plan of action in public to avoid the speculations in the mind of stakeholders from that very month. All the newspapers contained synopsis of Annual reports of 2022-23 and statement from CEO Pieter Elbers aiming at 100 million passengers, looking forward to double the size and scale in 2024. AI is taking steps to prepare its sales and distribution for further international presence even when AI faced supply side issues. To reduce the crisis faced, AI has taken actions to reduce operational disruptions. This was appropriate as this **transparency and communication** would assure stakeholders like shareholders of their profits and increase in share price and the customers of no flight cancellations.

In Nov 2023, The CEO in an interview given to The Business line, he disclosed that AI by the End of 2024 and early 2025 that the priority is building their base to get one aircraft every week assuring customers of smooth functioning however In September 2023 out of 76612 passengers, 50945 passengers were affected due to flight cancellations by Indigo though full refund was given to the passengers according to the DGCA¹ and this was due to grounding of aircrafts ("Indigo Flight Cancellations/delays Affected 76,000 Passengers in Sep: DGCA Data").

In April 2024, AI decided to lease 20 aircrafts from April to make up for capacity lost due to grounding of its 70 Aircrafts, "IndiGo is in talks with multiple leasing companies and airlines to add to its fleet before the summer schedule begins in April. The airline is in the final stage of negotiations to onboard eight aircraft on wet lease from airlines and another 12 from the secondary market," a senior executive said. The executive from the leasing company said that AI is looking to add planes on wet lease for 6 months and through short term leases in the secondary market. AI signed a lease transaction for 4 Air bus A320 neo aircraft with BOC Aviation. They also retained older Airbus A320 aircraft, extended leases. This has

¹Directorate General of civil Aviation.

helped AI to increase their capacity by 25% as of Feb 2024 (SD1) ("Mc Exclusive: IndiGo to Lease 20 Aircraft from April to Mitigate Capacity Loss Due to Grounded Planes").

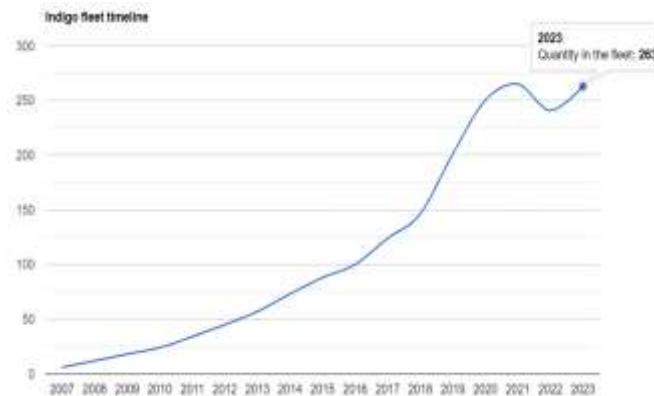


Fig 2: Indigo fleet time line ("Just a Moment..")



Fig 3: Fleet size as on 2024

In 2023 Indigo's fleet size was 263 which has increased to 382 by 2024 this shows an increase in size of fleet by 45.25% with an order backlog of 977 aircraft, this has helped AI to satisfy 27.8m customers which increased by 6% from 2023 keeping the market share at 61% which has been 60.5% in 2023. The on time performance of AI fell from 84% to 22% in Jan 2024 which is comparatively lower than their competitors wherein vistara was at 54%, Spice Jet at 43% AIX connect at 31%. However, online performance improved to 74.83% with a low cancellation rate of 1.4% making AI 7th largest airlines allowing AI to schedule flights to 122 destinations as shown in infographic in fig 4.

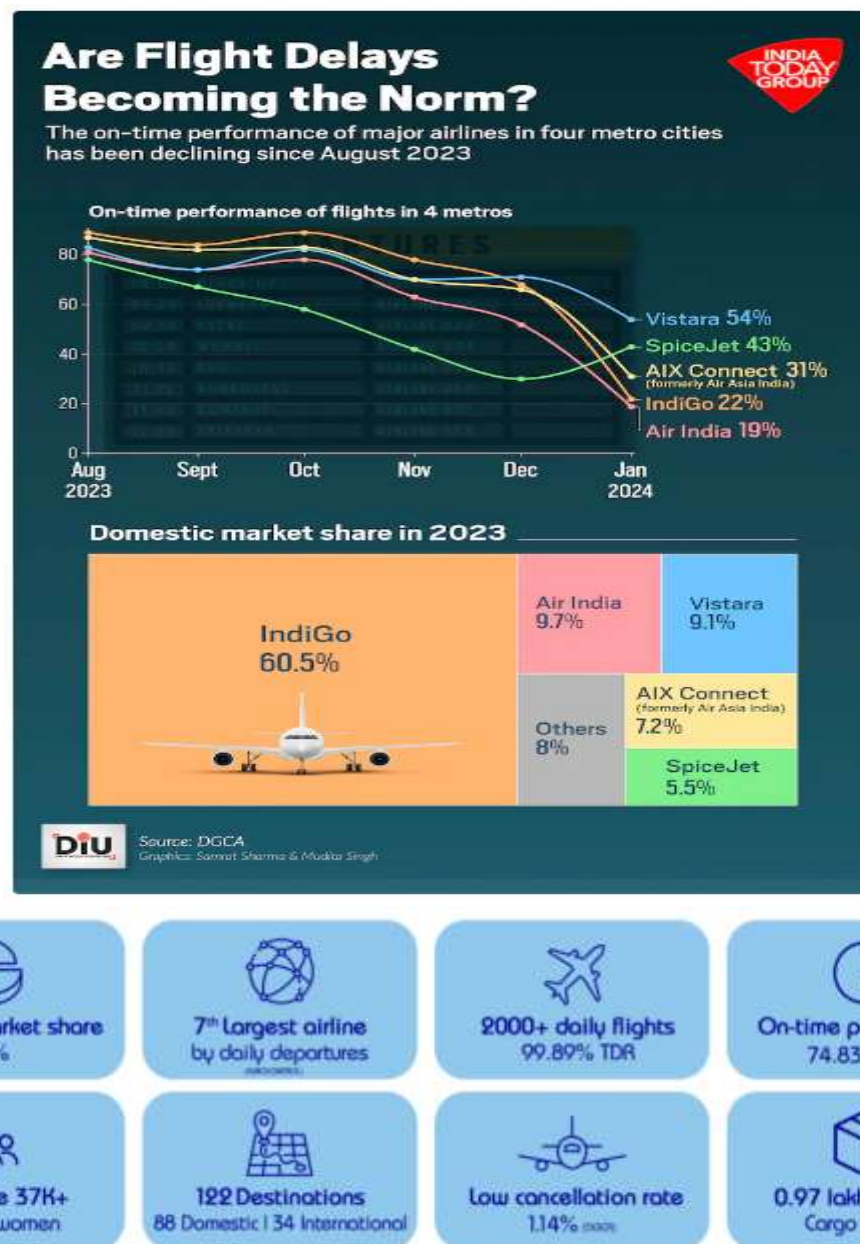


Fig 4: Infographic SD 2 and SD3

They further plan to add A321 XLR aircraft in 2025 and A350 wide-body planes by 2027 which will help enhance global connectivity and capacity allowing AI to increase its international destinations over 40 by March 2025 ("IndiGo's Flight Surge: Seven New International Destinations Coming This Fiscal Year - Airlines/Aviation News | The Financial Express")

AI has been prompt in taking steps to resolve the issue of supply chain however the process is slow. The decision making was in good **speed** with a clarity from the CEO at every interval showing that AI could manage the crisis which is evident in increase in MS, fleet size, number of passengers, destinations covered.

To ensure that AI doesn't face a similar situation in future, AI has a risk management framework. The risk management committee has been empowered to frame, implement and monitor the risk management practices, they are expected to oversee, review and update the calendar becoming certain risks very important. The committee meets on regular intervals to discuss risks related to airline security.

AI created teams of professionals with experience and knowledge to acquire equipments and services along with well-defined procurement process establishing adequate control and strong equity with OEMs and service providers ensuring high quality products at competitive prices SD

AI has high numbers of Aircraft on Ground (AOG), to reduce the impact of supply chain issues they continued with recovery strategy ensuring seamless operations and minimizing disruptions to passengers. AOG occurs when an aircraft is unable to fly due to scheduled or un scheduled maintenance or technical faults. AOG mitigation strategies include 24x7 operations control, aircraft swap, and initiating relief flights. They have round the clock teams of operations specialists, certified engineers, flight dispatchers to ensure a swift response to any AOG incidents. IA positions spare parts at multiple stations, have comprehensive trend monitoring and reliability analysis, trains maintenance team to update on latest techniques and many such strategies as mentioned in SD 3.

This helps AI to maintain low MEL² rate, which is one of the lowest in aviation industry and maintains 99.9% TDR³ this has been possible due to ACARS systems allowing to identify and resolve technical issues.

Schedule of domestic flights on weekly basis			
Airline	Winter 2023	Summer 2023	Winter 2022
IndiGo	13119	11465	10085
*Tata Group	5726	5492	5399
SpiceJet	2132	2240	3193
GoAir	0	1538	1390
Others	2755	2172	1874

Fig: Schedule of domestic flights on weekly basis (Sinha)

The above figure shows that AI could schedule 14.42% more flight in winter 2023 in comparison to summer 2023 which is almost double than Tata Group. AI were ranked 5th most punctual airline in the world by OAG⁴ and most punctual airlines in India for 2023 (DGCA).

²MEL: minimum equipment list

³TDR: Technical dispatch reliability

⁴Official Aviation guide

Financial performance Q1 FY 2025



However, it is a must to understand the external factors in India to analyse if the strategies used by AI will help resolve issues in future too.

Social factors: According to the Airport authority of India, India's passenger volume would increase to 412 million in 2024-25, The disposable income of Indians is increasing creating a demand for domestic and international travel. IT is expected that India will take over China and the United States as 3rd largest Passenger market by 2030. AI will also get higher passenger load from their competitors as not all are financially strong to increase their fleet size. This will lead to an increase in demand for more aircraft however the question is will Indigo be able to increase the size of their fleet? Looking at the debt equity ratio which is low and increased share price in stock market shows higher trust in shareholders which makes it clear that it will not be difficult for AI to either fund their aircrafts through bank loans by buying and selling shares. But will the Aircrafts be made available on time?

The checking of the engines by P&W will take 250-300 days means the supply side issues will continue even in 2025 according to credit rating agency, ICRA(V) SD.

Economic factors: The Indian Government has been attempting to build more airports in order to handle the increased aviation traffic. India plans to have 220 operating airports by 2025 as per Aviation Industry report 2023 IBEF adding new routes. The government is taking pertinent measures in infrastructure to accommodate growth. The government would invest Rs.980 million on building airport infrastructure.

Government expects to achieve GDP growth of 8% each creating 90 million jobs by 2047 raising income six fold to over \$12000 capital ("What Does the Future Hold for India?")

Technological factors: It is expected that AI/AR/VR, block chain, big data, and machine learning will help maximize operational efficiency and cut costs. Advanced monitoring systems, quicker check-in procedures, enhanced flight services and maintenance will all be made possible by these technologies. Improved technology will lead to lower cost and Indians being price sensitive will get attracted towards flight travels in comparison to any other mode of transportation.

Political factors: India has a stable government for the next 5 years which supports expansion plans of AI. All the above factors guarantee increased demand for services of AI however will the suppliers be able to make the right numbers of Aircrafts to meet demand is still a question. The investment is huge for the suppliers and to expect new suppliers in the market is also difficult due to capital requirement and laws which increases barriers to enter the suppliers market.

The market potential of the aviation industry will also generate new employment opportunities. Skilled professionals who excel in customer engagement and service management will play an important role in maintaining the airline's competitive edge. It is estimated that India will require 14000 Aircraft maintenance engineers (AME) in the next 8 years.

Indigo has placed around 1200 aircraft orders with major aircraft manufacturers, which are to be delivered in the next 10 years. This does not include 1000 aircrafts which are being delivered to the carrier in a staggered manner over a period of time. This indicates the need for a huge workforce which includes cabin crew, pilots, flight dispatchers and a huge amount of workforce to maintain and service them.

Air India is starting its own pilot training school, Ashok Gopinathan, President and accountable manager of GMR Aero Tech said that gap in training from schools are frequently encountered when new recruits are hired leaving the employee less than industry ready. This leads to providing additional training resulting in loss of productive hours which would increase cost.

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