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#### SUCCESS STORY OF INDIGO: A LESSON TO INDIAN AIRLINES INDUSTRY

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#### **ABSTRACT**

The case discusses the success story of Indigo Airlines, Indian number one airline company. Early 2000, when aviation fuel prices soaring and the rupee dropping, these years were some of the most difficult years for the Indian airline industry and when major players of this industry like Kingfisher airlines, SpiceJet, Indian Airlines and Jet, were bleeding money; Rahul took a bold step to enter the market at such a time. Indigo started its operations on the 4th August 2006 and by the end of December 2010, Indigo replace Air India and became the third largest airline in India with a market share of 17.3%. Now competition was with Kingfisher and Jet Airways. In the next two years, Indigo became not only the most profitable airline in India but also became the number one airline in India in terms of market share. Today, Indigo accounts for a total of 109 Aircrafts operating 818 flights to 40 destinations globally (35 cities in India and 5 cities abroad) in a day, with a current market share of 36.8%, the company is most profitable and largest airline company of India. The objective of the case is to find out the reasons for the success of Indigo in adverse market conditions.

### **KEYWORDS**

FDI, aviation, working capital, route planning, competitive advantage, brand equity.

### INDIAN AVIATION INDUSTRY: AN INTRODUCTION

abriel La Landelle, a French author, first time, coined the word Aviation in 1873. It is basically related with designing, development, production, operation, and use of aircrafts.

Potential for aviation sector is enormous in India. Indian aviation market already is catering more than 150 million travelers and it would be around 450 million by 2020. It is expected that Indian aviation market, would be the third-largest aviation market in the world by 2020.

### **KEY CHARACTERISTICS OF INDIAN AVIATION INDUSTRY**

Recovering from the bad past, now high growth is seen in Indian aviation industry. The Indian aviation sector is fastest and steadily growing sector of service industry. Worldwide, Indian aviation sector is one of the 5 fastest-growing aviation markets. At present, India's aviation industry is catering approx 117 mn home passengers and 43 mn worldwide passengers. It is expected that in the coming ten years, these market would reach around 337 million home and 84 million worldwide passengers. From January 2016 to August 2016, domestic air passenger traffic increased by 23.14 %. It was increased from 52.36 million to 64.47 million during the same period in 2015. Increase in passenger traffic was very high in the FY 2015-16 and it increased at a rate of 21.3 per cent and reaches to 85.57 million

Total aircraft movements at all Indian airports in July 2016 were 168,400, which was 14.3 % higher than July 2015. There was 8.2 % rise in International aircraft movements and 15.8 % rise in domestic aircraft movements.

Contribution of India's aviation industry to Indian GDP is about 0.5 % and employed around 1.7 million people. (Source: Department of Industrial Policy and Promotion)

Opportunities and threats are the two side of a same coin. Though there are vast opportunities for aviation sector in India but there are threats too.

#### **OPPORTUNITY FOR INDIAN AVIATION INDUSTRY**

India aviation industry is growing at a very fast speed. One of the major opportunities for Indian aviation sector is government liberalization policy which results in to the entry of large number of private players in this sector. In case of domestic airlines permissible foreign equity is up to 49 %. 100per cent NRI (Non-Resident Indian) investment is permissible in domestic airlines. FDI of 74% is permissible through automatic approvals & 100 % through special permission for airports upgrading.

A significant increase is seen in the number of air travelers in India. Reasons for this increase are increasing income and purchasing power of Indian middle class and growing tourism in the country. India is world youngest country with more than 70% population in age group of 15-35 which is again a major factor increasing the air passengers.

Indian government's open sky policy is also a factor favorable for the growth of Indian Aviation industry. Open sky is an agreement which allow any number of airlines fly between two countries. There is no restriction on number of flights, number of destinations, number of seats, price and so on.

Currently, India's has open sky agreements with US without restriction. With UK, India has open sky agreement with few restrictions regarding frequencies of flight with respects to flights to and from Mumbai and Delhi. India has limited open-sky with ASEAN and bilateral agreements with more than 100 countries. In India initial set up cost for launching an airline is not so high. It can be launched with initial investment of \$10 million or less.

#### THREAT FOR INDIAN AVIATION INDUSTRY

One of the areas of major concern for Indian Aviation Industry is raising cost of fuel. Air traffic and economic downturn was also a factor of great concern for Indian aviation industry. Another major threat is taxation rates and increasing operational costs. High exit barriers due to high capital investment & more government restrictions.

In India there is scarcity of trained pilots & ground staff and high bargain power of suppliers of aircrafts. Indian aviation industry is a matured Industry with high competition in lower cost segment. There is also availability of Substitutes like railways and buses.

#### **ISSUES**

This case is structured in a way that helps out in achieving the following teaching objectives:

- Understanding the opportunities and challenges for Indian Aviation Sector.
- To understand the various strategies used by Indigo Airlines making it no. 1 Airline Company in the country.
- Favorable factors which made the brand successful in the aviation market.
- Examine alternative plans for future progress for the company

Why Indigo was successful. The success of Indigo is the result of their unique and innovative business model and operational strategies used by the company. Reason for success of Indigo was that it not only focus on building the brand but also focus on innovation and best use of technology, providing best quality and customer service at lowest possible cost.

#### **INDIGO AIRLINES**

#### INTRODUCTION

IndiGo is India's no. 1 ranked airline company capturing a market share of 36.9% in FY 2016. Rahul Bhatia, owner of Inter-Globe Enterprises and Rakesh S Gangwal started Indigo airlines in the year 2005 with 51.12% & 48% stake respectively. Currently in India Indigo is serving 35 cities and internationally 5 cities (Bangkok Dubai, Kathmandu, Muscat and Singapore) with daily flights of 731.

IndiGo profit was 19.9 billion in the FY 2016, the highest ever for the airline. 33.1 million people were flew across Indigo network in the FY 16. There is increase of 27.1 % Domestic passenger volumes CAGR from FY11 to FY16. The IndiGo airline is the only airline company in India which with zero working capital loans and a net debt-free company.

#### **BACKGROUND NOTE**

Indigo started its business operation in the year 2005, when in June 2005; IndiGo placed its first order of 100 Airbus named, A320-200 aircraft. Mr. Bruce Ashby, who was the Former Executive vice-President of US Airways, was selected as first Chief Executive Officer of IndiGo airlines. In the beginning, the airline acquired parking lots in two major cities of India, Mumbai and Delhi. The first Airbus was delivered to IndiGo on 28 July 2006, & IndiGo started its operations from 4 August 2006. The first service was between New Delhi to Imphal.

#### **PROGRESS**

IndiGo had six aircraft, in its first year of its operation. It acquired new aircraft in 2007 and completed the figure of 15. In December 2010, IndiGo become third in the industry by replacing Air India and achieved a market share of 17.3%. Now the aim of the company was to become a number one brand in Indian airlines industry by going ahead of Jet Airways & Kingfisher Airlines, which were at number one and number two position respectively at that time.

TABLE 1				
FY12	FY13	FY14	FY15	FY16
57,181	94,583	114,470	143,199	166,013

Source: Annual Report 2016, Indigo Airlines

### MOVING WORLDWIDE

After completing five year of domestic operation Indigo got its license to operate internationally in January 2011. The first international airlines were launched by Indigo's on 1 September 2011. It was between New Delhi and Dubai. In following weeks, this service was expanding to four more countries Muscat, Bangkok, and Kathmandu & Singapore from New Delhi & Mumbai.

In 2012, IndiGo replaced Kingfisher and become the 2nd largest airline company of India in terms of market share.

Currently, IndiGo is India's no. 1 ranked airline company with a market share of 36.9% serving 35 cities in country and 5 cities internationally with 731 daily flights.

TABLE 2: NET PROFIT (in Millions)				
FY12	FY13	FY14	FY15	FY16
1,279	7,873	3,170	13,042	19,897
Source: Annual Report 2016, Indigo Airlines				

### BUSINESS MODEL OF INDIGO AIRLINES

Currently, in India, IndiGo airline is at first position capturing 36.9% of total Indian aviation market. This success is the result of Indigo strategic focus on building operational efficiency, taking structural advantages along with customer orientation and employee-focused environment.

Major reason behind the success of IndiGo airline was adding new aircraft and expanding capacity. Company adopted the strategy of capacity expansion which results in increased efficiency and lower cost. The IndiGo airline increased its capacity by over 39 per cent, though there was fall of 4 % in the total industry capacity. Another reason for success was effective route planning, which also result in increasing market share. IndiGo's strategy was to cover only selected routes and provide more capacity on these select routes. Moving to more routes required new investments (rentals, staff, ground-handling, equipment etc.). This decision gives IndiGo economies of scale and competitive advantages.

IndiGo has connecting flights to various destinations. This ensures that a traveler from these destinations will not have to look at a non-IndiGo flight to go to any of these destinations.

Indigo also used only one type of aircraft which result in reduction of training of employees and also reduced the service cost. Indigo's entire focus was on low-cost model. Company buy a single type of aircraft i.e. Airbus A320 with similar seating configuration to make use of the same crew from pilots to flight attendants to the ground force in order to cut hiring, training, up gradation and maintenance costs.

Indigo is using Sale-and-leaseback financial model. In this deal, Indigo uses a 6-year sale and leaseback agreement. According to this deal the lessor has to take the aeroplane back after six years. Indigo believe that new aircrafts are better than old as it does not require frequent overall checks. Such a check is required normally the aircraft is around eight years old.

Indigo was the first airline in India who opted for low-cost carrier and offers only Economy Class seats accommodating 180 passengers in an aircraft. As economy carrier they don't have to spend much time, money and crew on privilege passengers, or maintain expensive lounges at airports.

Indigo decided not to provide any in-flight entertainment or complimentary meals and offers a buy onboard in-flight meal programme, which helps them to keep fares low. No frill strategy used by company where it was not offered any frills such as free food/drinks; lounges etc. just to cut down the cost.

Indigo trained their ground staff to deplane all passengers in six minutes, unload and load the hold within 10 minutes and to get the plane ready to fly again within 25 minutes. Flight on time is one of the major strength of Indigo airlines and these type of trainings help in maintaining the quickest turnaround time.

Company also used online selling of ticket as a major channel of distribution rather than selling tickets through agents or travel agencies. The role of employees was also versatile and they were trained to perform multiple roles. The company also focused on opportunity present in the international market and tried to tape those untapped opportunities.

One of the major challenges for airline industry is high fuel price. Fuel cost accounts for about 45% of the total operating costs. Indigo saves fuel by using different ways.

Indigo is not only using latest software's to optimize flight planning to minimize fuel burning routes and altitudes but also using latest fuel saving technology. Moreover, Indigo is planning to convert its all fleet to the A320Neo, a plane that is expected to use approx 15% less fuel as compared to the A320. Indigo has the aircraft taxi to the terminal with one engine, shutting down the second engine to save fuel. This moderates the aeroplane's speed in the air and saves fuel.

#### CHALLENGES

One of the challenges for Indigo Airlines is to position itself in international market. It is mainly considered as a domestic brand and its international presence is very low. In India it has 40 destinations but globally only 5.

In India Spice Jet, Air Asia, Jet Airways etc all the airlines are targeting economy class of customers and to differentiate its products and services from the competitor's products and services in the low cost airline industry is again a challenge for Indigo.

Raising fuel cost and high taxation and operational cost is again a challenge for Indigo. In India, government had more control on deciding price of fuel. Fuel cost accounts for about 45% of the total operating costs and rising price of fuel is a major challenge.

Another challenge for Indigo is availability of trained pilots and experienced ground staff. In India there is lack of experience work force in aviation industry. More over aviation industry in India is a matured Industry with high competition in lower cost segment. There are many players who are operating in this segment and many more are about to come.

#### **ALTERNATIVES FOR INDIGO AIRLINES**

Though IndiGo Airline is a very big name in Indian aviation industry with a highest market share and number one aviation company but for further strengthen its market position and to gain competitive advantage company must increase its domestic and international operations by adding new destinations in its list and long haul flights. IndiGo has an option to further expand its business in the market of freight/ cargo & charter plane services; both are the untapped markets in India having high potential.

#### **EXHIBIT**

#### **EXHIBIT 1.1: LEADERS OF INDIAN AVIATION INDUSTRY (2014)**

	Rank	Company	Key Points		
	1	Indigo Airline Indian number one airline com-	Year of Establishment	2006	
		pany	Market Share	36.9%	
			Head Quarter	Gurgaon	
			Туре	Private	
			Owner	Rahul Bhatia (Inter Globe Enterprises) and Rakesh S Gangwal,	
				NRI	
	2	<b>Jet Airways &amp; Jetlite,</b> one of the largest airlines	Year of Establishment	1993	
		in India.	Market Share	19.8%	
LEADERS			Туре	Private	
OF INDIAN			Owner	Mr. Naresh Agarwal	
AVIATION	3	Air India is Indian oldest airline company. Its	Market Share	16.4%	
INDUSTRY		presence is in all major parts of India	Туре	Government	
	4	Spice Jet: Fastest Growing airline company in India	Year of Establishment	2005	
			Market Share	12.3%	
			Registered Office	Chennai	
			Corporate Office	Gurgaon	
			Туре	Private	
			Owner	Kalanithi Maran, Sun Group	
	5	Go Air is the one of the most popular and	Year of Establishment	2005	
		budget Airline Company in India and is present	Market Share	8.2%	
		in most of important destinations in India	Туре	Private	
			Owner	Wadia Group	

Source: DGCA (Directorate General of Civil Aviation) Report

### **TEACHING NOTES**

#### Success Story of Indigo: A Lesson to Indian Airlines Industry

The case discusses how Indigo Airlines becomes Indian number one airline company in adverse market conditions where industry is facing challenges of rising fuel costs, down value of rupee, decrease in air domestic traffic, high taxation and operational cost, non availability of trained pilots and experienced ground staff, matured Industry with high competition in lower cost segment.

Indigo become successful because it focusses simultaneously on brand building and innovation. Indigo always try to providing best quality and customer service at lowest possible cost by best use of technology.

### TARGET AUDIENCE

The case has been taught and is effective as part of master's degree, MBA programme and other management courses like PG Diploma in Management and BBA as a part of the course Strategic Management & Service Marketing. This case study can be taught while explaining strategic service marketing.

Students/participants are given an insight about various opportunities and challenges in aviation industries and how they can be faced through effective strategy development. They are also motivated to develop innovative strategies which can be implemented and utilized effectively.

### LEARNING OBJECTIVE

By the end of the case, reader will be able to-

- 1. Understand the reasons behind the success of Indigo.
- 2. The role of innovative strategies in the success of an organization
- 3. And how one can be successful in adverse and saturated markets

### **TEACHING PLAN AND ANALYSIS**

Teaching of this case, a 20 minute introduction to the case by the instructor may be useful before beginning discussion. The introduction should explain about the reasons for the success of Indigo in the adverse market. The goal of the case is that students should understand that how effective and innovative strategies can help a company to be successful and to become number one company with good profit in few years of its operation.

Once the introduction is complete, breaking the class into teams of three to five students may be useful. The teams should discuss and summarize their answers to each of the following questions presented in the case study and choose one representative to present a summary of the team's answers to the class.

### QUESTIONS

- a) Do SWOT analysis for Indian Aviation Industry?
- b) What are the various factors responsible for success of Indigo Airline?
- c) What are the various opportunities and challenges for Indigo Airlines?
- d) Suggest suitable measures for further success of Indigo Airline.

### **REFERENCES**

- 1. DGCA (Directorate General of Civil Aviation) Report
- 2. John Samuel Raja & Binoy Prabhakar (22 Dec, 2013). The secret of Indigo's consistent profits, ET Bureau.
- 3. Naazneen Karmali(Oct 20, 2014). How Rahul Bhatia Built InterGlobe and its Airline Indigo into A Class Act, Forbes Asia Magazine.

#### WEBSITES

- 4. en.wikipedia.org/wiki/Indigo
- 5. www.indigo.com

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