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AVIATION SECTOR AND CONSUMERS IN EMERGING MARKETS

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Abstract

Purpose of study: To study aviation sector in emerging economies like India and China to get insights about consumers and the factors affecting customer satisfaction in the airline industry. **Methodology adopted:** Secondary research carried out by way of collecting secondary data from sources such as online published literature, reports, books and research journals.

Keywords: Aviation industry, Air transport, emerging markets, consumers in aviation

I. INTRODUCTION

An airline is an organization that engages in air transport services for travelling passengers and cargo (Waitz et al., 2004). The aviation sector comprising the airlines and the airports, air navigation and other essential grounds services make up the air transport infrastructure. Airlines make use of aircraft to provide these services and may form partnerships or alliances with other airlines for code share agreements. Airline organizations are recognized with an air operating certificate or license issued by a governmental aviation body. Airlines may be small domestic airlines, budget airlines to full-service international airlines. Airline services can be grouped as being intercontinental, domestic, regional, or international, and may be operated as scheduled services or charters. Aviation sector comprises of three distinct types of activity namely Air transport for people and cargo/mail; Airport services that comprises of airport facilities, the services provided for passengers on-site at airports, and other essential services provided off-site, such as air navigation and air regulation; Aircraft manufacturing that builds aircraft systems, airframes and engines and avionics systems; Aircraft maintenance organisations.

1. Asian airline industry background

Asia's oldest scheduled carrier still in operation is Philippine Airlines (PAL) officially incorporated on February 26, 1941 and established by mining magnate Emmanuel N. Bachrach on December 3, 1930.One of the first Asian airline companies is Air India, was founded as Tata Airlines in 1932. Among the first Asian carriers were Cathay Pacific of Hong Kong (founded in September 1946), Orient Airways (later Pakistan International Airlines; founded in October 1946), Air Ceylon (later Sri Lankan Airlines; founded in 1947), Malayan Airways Limited in 1947, El Al in Israel in 1948, Garuda Indonesia in 1949, Japan Airlines in 1951, Thai Airways International in 1960, and Korean National Airlines in 1947. With open sky policy introduced in India in the year 1992, and a current growth rate of 18 % per annum, Indian Aviation industry is one of the fastest growing industries globally and ninth largest aviation market in the world (CII, 2013).

1.1 Competition in Indian aviation industry

Airline business has been competitive wherein competition for both product and price existed right from birth of airlines and still continues. Ryan air was first low-price, no-frills airline in Europe, founded in 1985 and is known as being a “ticketless” airline - Passengers

check in for flights using a reference number issued to them at the time of purchase.
India is one of the most important and largest emerging markets after China, with 128 airports - including 15 international airports, 400 aircrafts catering to 143 million passengers and the civil aviation sector growing at an average of 15% in terms of domestic passengers and 7.8% in terms of air cargo. Aviation plays a critical role in delivery of social services such as air ambulances and scheduled transportation, protection from natural disasters, non-renewable resource exploration etc. and there is an increased demand for services such as passenger and cargo airlines, unscheduled service operators - private jets and helicopters, airport management, and support services like Maintenance, Repairs and Overhaul (MRO), ground handling, in-flight catering, and training in the last decade. By the year 2020, India is projected to become the third largest aviation market handling 336 million domestic and 85 million international passengers with estimated of US$ 120 billion (Press Information Bureau, Govt. of India). India has become the world's fastest growing domestic travel market at 26.6 per cent year-on-year growth in January 2017 (IATA). Improved connectivity gives Indian-based businesses greater access to foreign markets, increases competition and choice to customers and encourages firms to specialize in areas of comparative advantage. According to statistics provided by the Ministry of Civil Aviation, India, the Passengers carried by domestic airlines during Jan-Sept 2017 were 849.94 lakhs as against 726.98 lakhs during the corresponding period of previous year thereby registering a growth of 16.91 % in 2017. DGCA, India, in its statistics for 2017 showed that Indigo is a leading carrier of passengers in India domestically and internationally (39.6% market share) followed by Jet Airways (15.5 %), Spicejet (13.3 %) and AirIndia(13.3 %). Indigo has consistent On-Time Performance at around 90% across 3 major airports which is better than all other airliners in the same category, followed by Vistara and AirIndia. This is certainly one of the reasons of its increasing popularity and increasing market share in domestic sector. The number of passengers carried by domestic airlines during Jan-Sept 2017 was 849.94 lakhs as against 726.98lakhs during thecorresponding period of previous year thereby registering a growth of 16.91 %.

1.2 View from China

In 2016, the civil aviation industry in China had 2 950 registered transport aircraft, 300 more than in 2015 at 2650 aircraft with 218 airports in 2016 including 8 new and 3794 scheduled routes. China National Aviation Holding Group held 27.2 % market share in 2016 followed by China Southern AirHolding Group with 25.3 % market share. Not a single accident was reported in any Chinese airline in 2016 and 2017. In 2016, 19952 aviation consumer complaints were registered as compared to 10 849 in 2015, indicating an increase of84%. The total traffic volume of over 5million passengers was recorded in 2016.In 2016, China's considerate avionics made interest in settled resources for the tune of 170 billion yuan, of which 78.24 billion yuan went to common aeronautics foundation improvement and mechanical overhauling, up by 1.7% from 2015. "Provisions on the Management of Flight Regularity" regulation was created in January 2017 with the objective of passengerprotection and to provide relevant assistance to passengers.

1.3 The Investment in India

Rolls-Royce Holdings Plc, the UK-based aircraft engine manufacturer, has opened a new defence service delivery centre (SDC) in Bangalore, which would deliver real-time solutions for improving capability and provide faster front-line support to over 750 aircraft engines used by the Indian Air Force, Indian Navy and State-owned Hindustan Aeronautics Ltd

(HAL).GVK Power & Infrastructure Ltd., which operates the existing airports in Mumbai and Bangalore, is going to build Mumbai's second airport in Navi Mumbai, with an estimated investment of Rs 16,000 crore (US$ 2.48 billion, expected to be operational by 2019.In the Union Budget 2017-18, the Civil Aviation Ministry received budgetary allocation at Rs 5,167.60 crore (US$ 775.14 million) for the next financial year. Air India, Air Deccan, Spice Jet, Air Odisha and Turbo Megha, secured the right to fly 128 routes across India under regional aviation scheme named UDAN.GOI has approved the construction of 18 Greenfield airports in India, with investment of Rs 30,000 crore (US$ 4.66 billion).Indian Cabinet Committee on Economic Affairs, Government of India, approved the proposal to revive 50 un-served and under-served airstrips in three financial years starting from 2017-18 at an estimated cost of Rs 4500 crore (US$ 698.7 million).The detailed traffic and operating statistics for domestic and international services in India are provided in Table and Table 2 as under:

Table 1a: Monthly Traffic And Operating Statistics Of Indian Carriers On Scheduled International Services2017(Jan To Sept):

Month/ Year 2017	Aircrafts Flown			Passengers Carried (In Number)	Passenger Kms.Perfor med (In Thousand)	Available Seat Kilometre (In Thousand)	Pax.LoadFactor# (In %)
	Departures (In Number)	Hours (In Number)	Kilometre (In Thousan				
Jan	12,237	53,016	43,817	19,97,487	68,68,816	82,36,491	83.4
Feb	10,602	46,983	38,518	16,75,453	57,62,472	72,92,115	79.0
Mar	11,802	50,960	42,677	18,47,324	62,69,918	81,01,399	77.4
Apr	11,722	50,072	42,129	18,44,672	62,26,996	79,66,172	78.2
May	12,184	51,678	43,363	19,34,268	65,24,024	81,77,856	79.8
Jun	12,074	50,918	42,702	17,99,327	63,33,760	80,01,156	79.2
July	12,552	53,273	44,721	19,67,472	68,10,459	83,68,281	81.4
Aug	12,603	53,442	44,844	20,19,818	68,98,155	83,96,517	82.2
Sep	12,275	52,239	43,758	18,55,912	64,10,954	81,83,031	78.3
Total	1,08,051	4,62,581	3,86,529	169,41,733	581,05,553	727,23,017	79.9
Source:-Icao Atr Form A Furnished By All Scheduled Indian Carriers.							
Note:- # Pax Load Factor = (Km Performed/Available Seat Kms)*100, ##Weight Load Factor = (Tonne Kms Performed/ Available Tonne Kms)*100							

Table 1b: Monthly Traffic and Operating Statistics of Indian Carriers On Scheduled International Services2017(Jan to Sept)

:	Cargo Carried			Tonne Kilometre Performed				Weight Load Factor## (In %)
Month/ Year 2017	Freight (In Tonne)	Mail (In Tonne)	Total (In Tonne)	Passenger (In Thousand)	Freight (In Thousand)	Mail(In Thousand)	Total(In Thousand)	
Jan	25,111.8	401.5	25,513.2	6,30,818.6	1,13,332.7	2,388.3	7,46,539.5	69.3
Feb	26,327.6	456.8	26,784.4	5,30,153.0	1,20,640.0	2,805.4	6,53,598.3	68.1
Mar	32,302.9	523.1	32,826.0	5,73,940.4	1,46,195.4	3,328.4	7,23,464.2	67.9
Apr	30,404.5	495.6	30,900.1	5,65,395.9	1,34,556.3	3,146.4	7,03,098.6	67.6
May	31,450.6	560.3	32,010.9	5,64,526.1	1,42,408.7	3,515.7	7,10,450.5	69.3
Jun	30,313.5	508.8	30,822.3	5,67,707.5	1,38,414.8	3,235.9	7,09,358.2	69.0
July	29,086.7	505.8	29,592.4	6,26,623.3	1,34,704.0	3,342.9	7,64,670.1	70.6
Aug	29,469.0	532.5	30,001.4	6,31,645.1	1,34,936.5	3,341.5	7,69,923.1	70.5

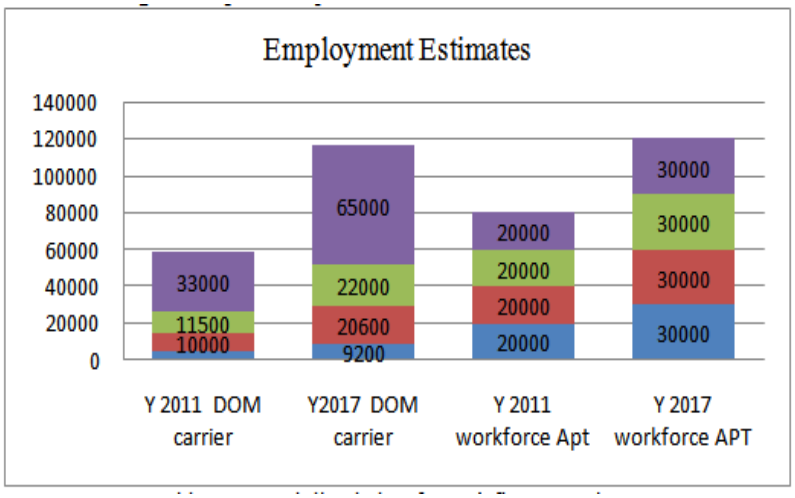
Sep	28,579.6	641.8	29,221.4	5,78,026.3	1,35,202.3	4,028.0	7,17,256.6	67.1
Total	2,63,046.1	4,626.1	2,67,672.1	52,68,836.2	12,00,390.6	29,132.5	64,98,359.2	68.8
Source:-Icao Atr Form A Furnished By All Scheduled Indian Carriers.								
Note:- # Pax Load Factor = (Km Performed/Available Seat Kms)*100, ##Weight Load Factor = (Tonne Kms Performed/ Available Tonne Kms)*100								

Table 2a: monthly traffic and operating statistics of indian carriers on scheduled domesticservices 2017(jan to sept):

Month	Aircraft Flown			Passengers Carried(In Number)	Passenger Kms.Performed (In Thousand)	Available Seat Kilometre (In Thousand)	Pax.Load Factor#(In %)
	Departures (In Number)	Hours (In Number)	Kilometre (In Thousand)				
Jan	70,749	1,20,523	63,579	95,48,612	91,84,893	104,06,549	88.3
Feb	64,556	1,09,411	57,857	86,16,856	82,27,608	94,39,258	87.2
Mar	71,713	1,20,621	63,774	90,07,696	85,48,137	104,52,016	81.8
Apr	69,474	1,17,315	61,814	91,00,687	86,88,834	101,55,279	85.6
May	74,578	1,25,749	66,480	101,40,073	97,16,982	109,34,374	88.9
Jun	72,739	1,22,745	64,789	95,36,983	91,43,756	106,40,306	85.9
July	74,715	1,26,025	66,454	95,33,226	89,95,060	108,12,394	83.2
Aug	74,902	1,25,520	66,855	96,63,380	90,92,204	108,84,015	83.5
Sep	73,765	1,23,278	66,196	95,50,493	90,66,108	107,31,701	84.5
Total	6,47,191	10,91,187	5,77,797	846,98,006	806,63,582	944,55,893	85.4

The manpower requirement (including ANS) for the airports is estimated to increase from current 20,000 to 26,000-30,000 by FY 2017. According to Booz Allen Hamilton analysis, low-cost carriers spend 7 to 8 cents per seat mile to complete a 500 to 600 mile flight, whereas the large airlines spend closer to 15 cents.

Fig 1: Manpower requirement estimates for aviation sector



Source: working group civil aviation for 12th five-year plan 2012-2017

Table 2b: Monthly Traffic and Operating Statistics of Indian Carriers On Scheduled Domestic Services2017(Jan to Sept):

Month	Cargo Carried			Tonne Kilometre Performed				Weight Load Factor## (In %)
	Freight (In Tonne)	Mail (In Tonne)	Total (In Tonne)	Passenger (In Thousand)	Freight (In Thousand)	Mail (In Thousand)	Total (In Thousand)	
Jan	48,824.2	3,270.0	52,094.2	7,95,626.4	108,32,198.4	3,266.0	116,31,090.8	67.4
Feb	46,644.9	3,261.0	49,905.9	7,13,118.4	98,05,596.6	3,214.0	105,21,929.0	66.0
Mar	54,709.8	3,271.0	57,980.8	7,38,475.1	109,42,055.1	3,255.0	116,83,785.2	68.7
Apr	50,135.1	2,780.0	52,915.1	7,51,794.0	98,68,041.8	2,829.0	106,22,664.8	66.6
May	54,771.8	2,886.0	57,657.8	8,40,004.1	109,77,512.4	3,013.0	118,20,529.5	69.5
Jun	55,246.7	2,941.0	58,187.7	7,90,524.5	111,57,191.6	3,001.0	119,50,717.1	70.9
July	55,356.1	3,103.0	58,459.1	7,77,248.0	108,86,224.3	3,169.0	116,66,641.3	70.5
Aug	56,354.8	3,024.5	59,379.3	7,84,035.9	111,12,539.5	3,061.0	118,99,636.4	70.3
Sep	60,811.8	3,138.0	63,949.8	7,92,174.7	123,56,407.9	3,235.0	131,51,817.7	70.7
Total	4,82,855.1	27,674.5	5,10,529.5	69,83,001.1	979,37,767.6	28,043.0	1049,48,811.8	69.0

Source:-Icao Atr Form a Furnished by All Scheduled Indian Carriers.
Note: - # Pax Load Factor = (Km Performed/Available Seat Kms) *100, ##Weight Load Factor = (Tonne Kms Performed/ Available Tonne Kms) *100
The aviation sector supports 1.7 million jobs in India and the details of the same are provided as under in Table3:

Table 3: Economic contribution of the airlines, airports and aerospace:

	Direct	Indirect	induced	% of economy
Contribution to GDP (INR billion)				
Aviation	147	107	77	0.5
Total	147	107	77	0.5
Contribution to employment				
Aviation	276	841	605	0.4
Total	276	841	605	0.4

1.3.1 Tax contribution

Aviation makes a substantial contribution to the public finances. The aviation sector contributes over INR 87.5 billion in taxes through corporation tax and the income and social security contributions (both employee and employer contributions). (IATA, Indian Tax Office, Oxford Economics, 2011).

Aircraft Maintenance Organization

Aircraft maintenance is the overhaul, repair, inspection or modification of an aircraft or aircraft component. Maintenance may include such tasks as routine inspections, major maintenance, modifications and compliance with Airworthiness Directives or Service Bulletins. The maintenance of aircraft is highly regulated. National directions are composed under global measures, kept up by bodies, for example, the International Civil Aviation Organization (ICAO). The upkeep undertakings, faculty and examinations are for the most part firmly managed and staff must be authorized for the errands they complete. Upon initial issue of license, staff competency is accessed for each type of aircraft and at regular intervals.

Consumers in Aviation

In Aviation, having effective quality and safety management systems with necessary control framework is critical as lack of such systems can result in damaging the brand image and profitability of the service provider. Improvements in connectivity through aviation contribute to the economic performance of the wider economy by enhancing its overall level of productivity. Southwest airline creates value for employees by focusing on cornerstones of employee-relations approach "LUV" and the "FUN". This shows respect for employees and encourages them to enjoy their work. Success of Southwest Airlines is dependent on its employees who deliver superior quality services at low cost. Southwest creates a competitive advantage by adding value through employees (Hallowell, 1996).

In evaluation of airline service quality on the basis of SERVQUAL method designed by Parsuraman et al (1988), understanding/ knowing customers, empathy and courtesy are considered very important factors in building service quality. O'Cass and Ngo (2007) stated that market-oriented behaviours are driven by the organizational culture that manifests itself in specific behaviours. It is observed that people learn most of the behaviours and beliefs from the people around them or the ones they grow up with. Although each individual has unique needs and personal preferences, the behaviours and beliefs of the customers of the same organizations show some commonality. Organizational culture helps the organizations to solve its problems of external adaptation and internal integration by creating a shared pattern (Schein, 1992).

1.4 Empirical evidence and conceptual model:

Information on customer grievances, their causes and how various airlines address them provides an important insight into the overall customer orientation and functional policies of these organisations. A report published by DGCA, India in 2017 provides information on number of passengers carried and customer complaints along-with compensation provided which are summarised and tabulated in Table 4 and Table 5 respectively as under:

Table 4: Total Domestic Passengers Carried by Scheduled Domestic Airlines (In Lakhs) –Year 2017(Jan to Sept)

Quarter/ 2017	Air India (Domestic)	Private Carriers	Total Domestic	Percentage Share	
				Private Carriers	Air India
Ist Quarter	37.01	235.79	272.79	86.4	13.6
IInd Quarter	37.52	251.24	288.76	87	13
IIIrd Quarter	38.67	249.71	288.38	86.6	13.4
TOTAL	113.2	736.74	849.93	86.7	13.3

Source: DGCA Report 2017

Table 5: Summary of Customer Complaints and Redressal by Airlines in 2017 (Jan to Sept)

Airlines	Denied Boarding		Cancellations		Delays Beyond 2 Hrs	
	No. of Persons Affected	Compensation provided	No. of Persons Affected	Compensation provided	No. of Persons Affected	Compensation provided

Air India, Jet Airways and Jetlite,Spicejet, Goair, Indigo, Airasia, Vistara, Trujet, ZoomAir	2052	Rs. 92.40 lakhs compensation	17520	Rs. 56.52 lakhs compensation and facilities	103266	Rs. 113.28 lakhs towards facilitation

Source: Adapted from DGCA Report 2017

Air India is the only airline which has 68 open complaints from customers as on September 2017 whereas no private airline has such. From the actual data, it has been observed that the most common reasons of customer complaints in the airline sector are staff behaviour, catering, customer service, baggage, flight problems, fare and others. Out of all the factors, in September 2017 Customer service emerged as the biggest reason for causing customer grievances (31.4%), which increased by around 4% from 27.3 % in July 2017(DGCA Report, 2017). It has been found that most of the customer complaints in China, like India, are related to denied boarding, delayed or cancelled flights, pricing etc. According to a report published by Aviation Dispute Resolution (China) for the year 2016-17, a total number of 4534 complaints were received of which 3741 complaints were registered for denied boarding, delayed or cancelled flights.

Aircrafts emit a variety of greenhouse and other gases, including carbon dioxide, nitrogen oxides, soot, water vapour etc. which are proven to be detrimental to earth's natural environment. Increasing number of customers is becoming aware of the dangers of such emissions and their impact on health and safety of humans and other living organisms on earth. As a result of this, airlines are continuously working with manufacturers to design and implement technology that helps reduce emissions in the long run. Being environmentally aware and working towards making it better has been one of the factors leading to building a good image for airlines and other service providers such as retailers (Srivastava&Kaul, 2014). Bindu (2013) carried out a research on Asians, Europeans and Arab nationals in Dubai and found that majority of the airline customers are largely concerned about the future impacts of emissions on environment and most Europeans were active as well encouraged to consuming sustainably. In a research carried out on 40 airline companies from the emerging market economies by Yan et al (2016), it examined the impact of environmental innovations on firms' financial performance and it was found that both technology and process-based environmental innovations positively influence airlines' revenue.

Abdullah et al (2016) predicted improvement in the aviation sector and expected results bought in with the use of new technology and biofuels in the next 30 years. According to the report, the net carbon emissions will reduce by 50% by 2050 through the use of additional technologies and bio fuels, and a cap on net Carbon dioxide emissions from 2020 through carbon neutral growth. According to an empirical study on customer satisfaction and their behaviour intentions in airline industry carried out by Dias (2011), Airline Service quality explained 42.17 % variance in customer satisfaction. Some of the statements that describe staff behaviour are "Courtesy of employee", "Employees who are willing to help passengers", "Neat appearance of employee", "Crew gives passenger personal attention" etc. (Dias (2011).

Thus, the following model of service delivery can be conceptualised for the airline industry, which is in line with SERVQUAL Model designed by Parsuraman et al (1988); for the airline industry by Zins (2001), Park et al. (2006) and Zeithamlet al (1996):

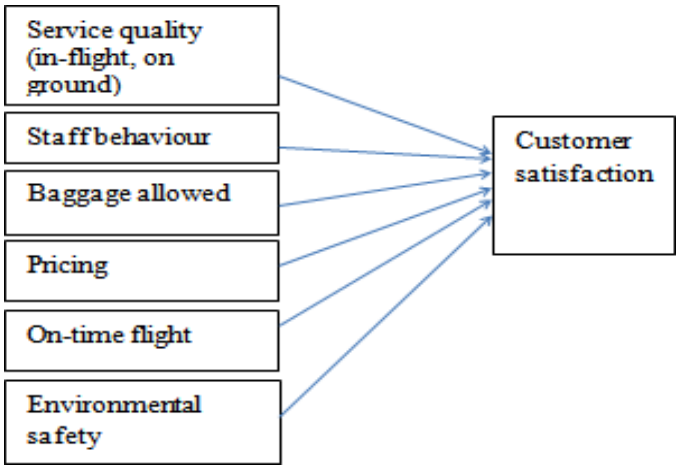


Fig 3: Conceptual Model of Customer satisfaction

II. MANAGERIAL IMPLICATIONS FOR THEORY AND PRACTICE

From this case, it is evident that customer service quality, staff behaviour, baggage, on-time flight and pricing play an important role in creating happy customers who do not complain about the services provided by various airliners. Also, Indigo emerged as one of the best airlines in the domestic market in India with the largest marketshare and best service records with least customer complaints consistently for the last couple of years, indicating that good practices are being followed by Indigo and that the organization. Also, it is laying emphasis on improving customer service and other components associated with service delivery which goes a long way in making the customers happy and satisfied. Focus on price or price war shall leave service organisations at now in position in the longer run. This is mainly because airlines are very sensitive about competitor's price change. Therefore, focus on quality service and customer satisfaction becomes main competitive advantage for airlines. In order to improve sustainability in the long run, and to increase market share and profitability in a competitive environment airlines need to introduce new ways of building loyal customer base.

1.5 Future research:

In order to provide empirical supportto establish the given antecedent and outcome factors of airline service, primary research from customer's perspective froman emerging market (using a self-constructed structured Questionnaire) shall be carried out in future.

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