

An Empirical Study of Passengers Perception of Service Quality of Selected Indian Airlines

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Abstract

This research paper evaluates the underlying forces of service quality influences on passengers' perception of Indian airlines. The study also evaluates, which dimensions have a positive influence on service quality and which dimensions have the most and least important impact on service quality in national air travel, as perceived by airline passengers. This research paper also analysed the data from passengers of three classes - economic, business and premium. The findings of this research paper are based on the analysis of a sample of 500 respondents each from Air India, SpiceJet Ltd. and Jet Airways. Respondents have given their rating for all 20 service quality attributes under four service quality factors for each airline and the ratings were assigned as very good-5, good-4, neither good nor bad-3, bad-2 and very bad-1. The results suggest that passengers are satisfied with the service quality dimensions delivered such as in-flight service, in-flight digital service and back-office operations. The findings reveal that these three dimensions are positively related to perceive service quality. Thus, it is observed that the passengers are highly satisfied with service quality of Spice Jet Ltd. Domestic air traffic has shown a consistent growth of 20 -25% throughout 2015 and 2016, peaking in January this year at 25.13%. However, the domestic travel demand rose 16% in February this year (2017), ending the long streak of over 20%. India which enjoyed the fourth position in terms of overall air passenger traffic (both domestic and international) along with the UK, has also inched closer to becoming the third largest one by March next year.

Keywords: Quality, Passengers' Perception, In-flight services, In-flight digital services, Back-office Operations.

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1. INTRODUCTION

The Civil Aviation industry has lead in a new era of expansion, driven by factors such as Low-Cost Carriers (LCCs), modern airports, Foreign Direct Investment (FDI) in domestic airlines, advanced Information Technology (IT) interventions and growing emphasis on regional connectivity. India is the ninth-largest civil aviation market in the world, with a market size of around US\$ 16 billion. India is expected to become the third largest aviation market by 2020.

“The world is focused on Indian aviation – from manufacturers, tourism boards, airlines and global businesses to individual travellers, shippers and businessmen. If we can find common purpose among all stakeholders in Indian aviation, a bright future is at hand” said Mr. Tony Tyler, Ex Director General and CEO, International Air Transport Association (IATA).

According to an industry report, India has become the third largest aviation market in terms of domestic passenger traffic, beating Japan.

According to Capa (Center for Asia Pacific Aviation), India’s domestic air passenger traffic stood at 100 million in 2016 and was behind only the US (719 million) and China (436 million). India acquired the third spot globally by unseating Japan, which flew 97 million domestic passengers in 2016 “India will become the third largest market 2-3 years ahead of what was projected. This is because the growth has been much higher,” said Kapil Kaul, head of Capa India.

According to IATA, India witnessed the highest domestic air passenger growth at 23.3% in 2016, way ahead of neighbouring China. Last year, airlines worldwide carried 3.6 billion passengers and 52.2 million tonnes of cargo worth USD 6 trillion. Among the world’s largest domestic aviation markets, India had the fastest domestic passenger growth in 2016.

In 2016, domestic airlines in India flew 81 million passengers, registering a 20% growth over 2015. Growth was driven by low fares and average domestic fares were 15-20% lower in 2016. With annual growth of 18.8% (in a market of 80 million domestic passengers), India’s performance surpassed that of Russia (11.9% growth, in a market of 47 million domestic passengers), China (9.7% growth, in a market of 394 million domestic passengers) and the United States (5.4% growth, in a market of 708 million local fliers). Last year, carriers flew 3.6 billion passengers on scheduled services, an increase of 7.2% compared to 2015. SpiceJet Ltd. is India’s 2nd budget airline that has made flight more affordable for more Indians than ever before. SpiceJet operates 312 daily flights to 55 destinations, including 45domestics and 10 international ones. SpiceJet connects its network with a fleet of 27 Boeing 737NG and 17 Bombardier Q-400s. The majority of SpiceJet’s fleet offers SpiceMAX, the most spacious economy class seating in India and perhaps the world, at an additional fee option.

In any business, satisfying the customer is the ultimate goal or objective of any marketer. Excellent passenger satisfaction is one of the greatest assets for aviation industry in today’s competitive environment. Passengers’ satisfaction towards service arises when a company can provide passengers with benefits that exceed passengers’ expectation and this is considered value-added. If the passengers’ are satisfied with the product or service which the company is providing then they will buy more, and do so more often. Passenger gratification is an essential goal for each airline providing passenger services. The on-board experience is still something special for the passenger. The passengers’ have a wide choice to select the suitable airline product according to their requirements. Therefore, Airlines are continuously improving their service

quality to compete with their competitors. There are many factors that can help airlines to build its customer base so as to determine passenger satisfaction.

2. DEFINITION AND CONCEPT OF PERCEPTION

Perception is the process by which we translate sensory impressions into a coherent and unified view of the world around us. Though necessarily based on incomplete and unverified information, perception is equated with reality for most practical purposes and guides human behaviour in general. In other words, it is the ability to see, hear or become aware of something through the senses. Through this research paper, we want to ascertain the passengers' perception towards service quality of selected airlines.

For aviation industry, Passengers' perception is one of the most important tools for the evaluation of their marketing activities. The airlines are keen on checking the passengers' perceptions towards service, perceptions towards products quality, pricing, packaging and the sales promotion activities. Perception is the sum total of the immediate response of the passengers' sensory receptors. In this competitive world each and every airline is competing for creating a good image in front of passengers. Until and unless a passenger should perceive that the product/service is good then only they can survive in the market. If we compare the transportation facilities of north eastern states with other states of India, the conditions in north eastern states is very poor. Roadways and the railways are not much developed and thus travelling is a big problem for the commuter in these states. Moreover, the states like Uttarakhand have limited transportation facilities. This is one reason due to which most of the middle class people are forced to avail air services especially in case of some emergency. Though the Uttarakhand state is very small, the aviation sector is prospering in this state.

Service quality is a focussed evaluation that reflects the customer's perception of: reliability, assurance, responsiveness, empathy and tangibles. Every passenger has an ideal expectation of the service they want to receive when they use airline's services. Service quality measures how well a service is delivered compared to passenger expectations. Airline's that meet or exceed expectations are considered to have high service quality. There are four dimensions that passenger consider when assessing service quality. These are:

2.1. Reliability

Reliability is the first dimension service quality. Reliability refers to the ability to perform the promised service dependably and accurately. It is very important that aviation industry is able to fulfil the service that it advertises at the time of selling its tickets.

2.2. Assurance

Second dimension of service quality is assurance that means service providers are knowledgeable and have ability to convey trust and confidence to their passengers about the service they are providing.

2.3. Responsiveness

Willingness to help customers and provide prompt service in a timely manner is third dimension that affects service quality. It is important that employees are prepared to respond to passengers quickly.



2.4 Empathy

Fourth dimension of service quality is empathy. It is important for aviation industry to understand and share the feelings of their passengers and provide individualized attention.

2.5. Tangibles

Last dimension of service quality has to do with the tangibles of the service. Tangibles are the physical facilities being provided, such as the comfortable seats and cleanliness of aircraft, reading material and informative documents, quality of entertainment and food, handling of luggage, demonstration of safety instructions and appearance of cabin crew.

3. LITERATURE REVIEW

Previous researchers have given their concluding observation on why saving of money and time, safety and service quality, in-flight service and off-flight service are improving at an increasing rate. But there are not sufficient empirical studies which clearly bring out the key factors responsible for passengers' perception of service quality in Indian aviation industry. Factors like limited domestic flights, few airports, high fare etc. Due to these factors middle class people give least preference to travel via airways. For effective and efficient usage of airlines, Indian government should release some subsidiary policies or they should provide some accommodation facilities.

It is relevant to refer briefly to the earliest studies and researches in the related areas of the subject to find out and to fill up the research gaps, if any. Literature on prospects of aviation industry can generally be found from a number of books, research papers, journals and websites available only on aviation sector.

3.1 Bagozzi (1980); Cronin and Taylor (1992), "Casual models in marketing Wiley, New York," suggested that aviation sectors needed to understand passengers need and expectations to deliver better service to them. According to him, customer satisfaction and service quality judgment involves consumer comparing their prior expectations to actual service performance. Where customer satisfaction and loyalty has been examined in the air transport context, factors such as service value and corporate image are tended to be ignored. Such omission, however, could cause problems of model mis-specification and weak predictive power.

3.2 Movash and Ozment (1994), "Toward Management of Transportation Service Quality" states that delivering high quality service to passengers is essential for airlines survival. Service quality conditions influences a firm's competitive advantage by retaining customer patronage and with this comes market share, and ultimately profitability.

3.3 Nguyen and LeBlanc (1998), "The mediating role of corporate image on customers' retention decision" states that in spite of the importance of perceived service value as a form of assessment of services, there has also been only limited analysis of the exact nature of service value and its influences on customer behaviour.

3.4 Mc Dougeell and Levesqye (2000), "An assessment of service quality and resulting customer satisfaction in Pakistan International Airlines: Findings from Foreigners and Overseas" state that value can be defined as a customer overall assessment of the utility of a

product based on perception of what is received and what is given. Service value has been identified as an important variable of customer satisfaction and behavioural intentions.

3.5 Dr. Komal Nagar (2008), “Perceived service quality with frill and no-frill airlines: an exploratory research among Indian passengers” states that Direct competition between full service airlines and no-frill carriers is intensifying across the globe. This paper contributes to literature by examining the consumer’s perspective of the service component of the two carriers. Based on a survey of 180 passengers of both low cost carriers and full service carriers, this paper reveals differences in the perceived service quality of passengers of the two airlines. Results of the study reveal that although there have been significant changes in the aviation industry, which is currently in turmoil, yet the emergence of low fare carriers has been successful in making inroads in this sector. The findings provide evidence for the importance of service quality in both low cost and full cost airlines. Results show that passengers consider significant difference in the tangible features of full service carriers in that they consider it to be an important aspect of service quality. Whereas low cost carriers have become attractive given their low fares, passengers still consider tangibles to be an effective source of service quality perceptions.

3.6 Gilling Water (2012), in this paper “Passenger Perceptions of the Green Image Associated with Airlines” suggested that Environmental issues in air transport have grown rapidly in recent years, and in response some airlines have been proactive to demonstrate their ‘green’ credentials. The aim of this paper was to identify air traveller perceptions of different airlines with regard to green image, and how passengers perceive different measures that airlines can introduce their environmental impact. The research was based on a large quantitative survey, of over 600 travellers, conducted at Liverpool John Lennon Airport between April and July 2010. The data in this paper stems from a range of attitudinal statements on airlines, and measures that airlines could adopt to improve their environmental performance. When presented with a list of airlines, about half of respondents were able to differentiate between airlines based on environmental friendliness. The results showed that the low-cost airlines in general are not seen as more or less environmentally friendly than full service network airlines. Yet air travellers have indicated differences in the environmental image based on individual airlines. Furthermore, results varied depending on whether passengers had flown previously with a particular airline. Passengers also differentiated between measures that airlines can adopt to reduce the environmental impact on aviation. Using newer aircraft is showed as the most effective way to address the issue.

3.7 Naganathan Venkates (2013), in his paper entitled “A study on changing consumer preference and satisfaction levels towards the Budget Airline, Tiger Airways and Air Asia; Competitive prospective” analysed that in the international context, Air transport has played a pivotal role in global social and economic growth. The entry of low-cost carriers (Budget Airlines) had made a revolution in the Airline Industry (AI), with a different ways of operations compare to the traditional airline. In today’s competitive market scenario, organizations have to understand the importance of building and efficiently manage its customers; since customer’s expectation are increasing due to many airlines competing with one another by giving better offers and services. Today’s Aviation Industry has to focus not only at delivery of the service to the customers, but should also focus on satisfying the customers with the quality service at

competitive price. To keep the customer satisfaction the Aviation Industry need to be more innovative and come up with the necessary changes on the basis of the customers perceptions. In this regard, this study has been undertaken to find the passengers' customer satisfaction regarding the service quality in budget Airlines. This paper has focused on the Tiger Airways and Air Asia as the two key budget airlines and he has done the comparison of their service quality through questionnaires, feedback and through personal interviews and the collected data has been consolidated to give a report on both the airlines customer satisfaction and their preferences. Further he has highlighted the comparison of public (Government owned or Full Service carriers (FSC)) and private (LCCs) with respect to passengers service on a global perspective.

3.8 R. Archana and Dr. M.V. Subha (2013), identifying the dimensions of service quality as antecedents to passengers' satisfaction of Rajiv Gandhi International Airport studied the factors which influences on passenger satisfaction. The result from the analysis has suggested that all the five dimensions of service quality as well as service range influences the passengers satisfaction. The information endowed with the study can be used for designing the marketing strategies to improve the passenger satisfaction in aviation industry.

3.9 Naganathan Venkates (2013), "A study on changing consumer preference and satisfaction levels towards the Budget Airline, Tiger Airways and Air Asia; Competitive prospective" analysed that air transport has played a pivotal role in global, social and economic growth. The entry of low-cost carriers (Budget Airlines) had made a revolution in the Airline Industry (AI), with a different ways of operations compare to the traditional airline. In today's competitive market scenario, organizations have to understand the importance of building and efficiently manage its customers; since customer's expectation are increasing due to many airlines competing with one another by giving better offers and services. Today's AI has to focus not only at delivery of the service to the customers, but should also focus on satisfying the customers with the quality service at competitive price. To keep the customer satisfaction the AI need to be more innovative and come up with the necessary changes on the basis of the customers perceptions. In this regard, the present study has been undertaken to find the passengers' customer satisfaction regarding the service quality in budget Airlines. This paper will focus on the Tiger Airways and Air Asia as the two key budget airlines.

4. RESEARCH GAP AND PROBLEM STATEMENT

Not much of the research paper has been published on the topic "**An Empirical Study of Passengers' Perception of Service Quality of Selected Indian Airlines**". There are not enough empirical evidences in Indian context that point out the clear factors about the service quality of Indian Airlines. According to the review of literature it has been observed that very few studies had been conducted at Indian level on aviation sector specifically on this topic. So, there is a major gap of research work in aviation sector between international and national scenario. Therefore, in the absence of similar study the proposed research paper is expected to fulfil the research gap in India.

The present research paper focuses on service quality influences on passengers' perception and the research paper also examines which dimensions have a positive impact on service quality and which dimensions have the least important impact on service quality in Indian airlines, as

perceived by airline passengers. These dimensions include in-flight service, in-flight digital service and back office operations.

5. OBJECTIVE OF THE STUDY

To explore the level of passengers' satisfaction with the service quality on Indian airlines in terms of three dimensions of service quality instrument i.e., in-flight services, in-flight digital services and back-office operations.

6. HYPOTHESES

Hypothesis 1

- **H₀**: There is no significant impact of "Safety & Service Quality" on Passengers' Satisfaction in selected airlines.
- **H_a**: There is significant impact of "Safety & Service Quality" on Passengers' Satisfaction in selected airlines.

Hypothesis 2

- **H₀**: There is no significant impact of "In Flight Service Experience" on Passengers' Satisfaction in selected airlines.
- **H_a**: There is significant impact of "In Flight Service Experience" on Passengers' Satisfaction in selected airlines.

Hypothesis 3

- **H₀**: There is no significant impact of "Off Flight Service Experience" on Passengers' Satisfaction in selected airlines.
- **H_a**: There is significant impact of "Off Flight Service Experience" on Passengers' Satisfaction in selected airlines.

7. RESEARCH METHODOLOGY

Research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. The advanced learner's dictionary of current English lays down the meaning of research as a careful investigation or inquiry especially through search for new facts in any branch of knowledge. "All progress is born of inquiry. Doubt is often better than overconfidence, which leads to inquiry, and inquiry leads to invention." which is quoted by famous Hudson Maxim in context of significance of research. Research inculcates scientific and inductive thinking and it promotes the development of logical habits of thinking and organization. Research, as an aid to economic policy, has gained added importance, both for government and business.

Research methodology is a systematic way to solve a problem. It is a science of studying how research is to be carried out. Essentially, the procedures by which researchers go about their work of describing, explaining and predicting phenomena are called research methodology. It is also defined as the study of methods by which knowledge is gained. Its aim is to give the work plan of research.

7.1 Research Design

The research work is Empirical in nature. It relies on experience or observation alone, often

without due regard for system and theory. It is data-based research, coming up with conclusions which are capable of being verified by observation or experiment. This type of research can also be known as experimental type of research. Empirical Research is appropriate when proof is sought that certain variables affect other variables in some way. Evidence gathered through experiments or empirical studies is today considered to be the most powerful support possible for given hypothesis.

7.2. Data Collection and Analysis

7.2.1 Source of Data- This research is based on both Secondary and Primary data.

- a) **Secondary data:** For this purpose of analysis of current status in Indian Aviation Sector, secondary data has been analysed. The sources of such data are websites, bulletins and other published records of airlines like annual reports, periodicals & newsletters etc.
- b) **Primary data:** In this research paper, primary data has been collected through respondents of selected airlines. A survey has been conducted through structured questionnaire, personal interviews and observations etc. from the passengers of public as well as private sector airlines.

The above mentioned data has been collected, coded and entered into SPSS 22 before processing the same for analysis. Statistical tools used to analyse the data as per the objectives included Descriptive Statistics (such as frequencies, percentages and arithmetic averages).

7.3 Instrument Development

On the basis of concept development based on the literature review, 20 service quality variables for selected airlines namely Air India, Spice Jet Ltd. and Jet Airways were found relevant for the current study and these were further supplemented with some important demographic variables such as gender, age, area, educational qualifications, occupation and income.

The questionnaire contained close-ended questions on all variables found during literature review and on the demographics of the respondents. Close-ended questions were chosen to have a structured response which also helps in the formatted data collection. The questionnaire is divided into 3 parts. Part I includes Passengers' Profile, Part II includes General Opinion Survey and Part III includes Specific Opinion Survey.

Specifically Part III includes 20 service quality variables divided into four main service quality factors such as saving of money and time, safety and service of quality, in-flight service experience and off-flight service experience were developed on five point Likert Scale for each airline. In a Likert Scale, the respondent is asked to respond to each of the statements in terms of five degree, i.e., Very Good, Good, Neither Good Nor Bad, Bad, Very Bad. Likert Scale has been used because it is relatively easy to construct the Likert-type scale and it is considered more reliable as respondents answer each statement included in the questionnaire. It also takes lesser time to construct.

7.4 Pilot Test

Pilot tests are often conducted to improve the content of questionnaires. Therefore, a pilot test using the 'Split Ballot' technique was conducted to test the questionnaire. This technique involves the use of two or more versions of a questionnaire to measure the same thing and is used to reduce the effect of position bias when using multiple-choice questions in a questionnaire

(<http://www.surveyanalytics.com/>). 100 respondents at 2 airports namely Indira Gandhi International airport, Delhi and Jolly Grant airport, Dehradun participated in the pilot test. The questionnaires were distributed to airport passengers and executives and were collected personally. Two different sets of questionnaires were distributed to 50 respondents each. Respondents evaluated the questionnaire in terms of ambiguity in wording, level of difficulty in questions, ease of answering questions, overall structure and length of questions as well as the time necessary to complete the questionnaire. Finally, one set of questionnaire was selected on the basis of maximum number of responses and the above mentioned parameters.

7.5 Sample Design, Sample Area and Sample Size

For this study, non-probability sampling design was used. Non-probability sampling is that sampling procedure which does not afford any basis for estimating the probability that each item in the population has of being included in the sample (Kothari C.R., 2008). Under the non-probability sampling, convenience sampling has been used. In convenience sampling, the sampling unit may either be self-selected or selected because of ease of availability. NCR Delhi, Mumbai Airport, Chennai Airport, Trivandrum Airport, Kolkata Airport, Ahmedabad Airport, and Dehradun Airport have been selected for intensive study on the principle that they can be representative of the entire country, where the availability of passengers is in huge number who travels via airways. A structured questionnaire was administered to the respondents of all the cities mentioned above.

A total number of 1500 respondents (Air India passengers: 500, SpiceJet Ltd.: 500, Jet Airways: 500) were approached to fill up the questionnaire.

However, only 1440 respondents filled up the questionnaires correctly and, therefore, were included in the sample for final data analysis.

7.6 Instrument Validity

It is tested to ensure that the survey instrument is measuring what it is designed to measure or that each scale accurately measures the variables included in the study. Construct validity (i.e., do items measure hypothetical concepts) was tested by using Cronbach's alpha coefficient. Alpha was developed by Lee Cronbach in 1951, to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1 (Dennick, R., 2011). According to Hair, J., the acceptable lower limit is 0.60. Scales for this study were considered to have good reliability with a Cronbach's alpha value of 0.99. The instrument was found valid and reliable. The following Tables (1-3) shows the validity test as under:

Table 1: Showing instrument found valid and reliable

		N	%
Cases	Valid	480	100.0
	Excluded ^a	0	.0
	Total	480	100.0

a. Listwise deletion based on all variables in the procedure.

Table 2: Showing Reliability Statistics

Cronbach's Alpha	N of Items
.994	20

Table 3: Showing Item Statistics

	Mean	Std. Deviation	N
Fare Value and Insurance Facility	4.3417	.89997	480
On-time performance	4.1792	1.03245	480
Allowance for carryon baggage	4.3000	1.07038	480
Company's Seasonal Promotional Schemes	3.9875	1.11352	480
Communication Skills In Different Languages	4.2417	1.20192	480
Demo of safety instructions	4.3333	1.04858	480
Trust worthiness	4.5333	.89939	480
Availability of personal space when seated	4.1875	1.05894	480
Aircraft's ambiance	4.1917	1.14353	480
Cabin appearance/Cleanliness	4.3500	1.16059	480
Responsiveness of cabin crew members	4.5583	.81526	480
In-Flight Entertainment Facilities	4.1958	1.14829	480
In-Flight Catering Facilities	4.2583	.80183	480
Availability and Cleanliness of lavatories	4.4750	.81697	480
Courtesy of staff	4.5208	.71341	480
Promptness of baggage delivery	3.9250	1.29339	480
Adequacy of Staff at the Counter	4.3125	.99595	480
Ease of locating the required service counter	4.4167	.95915	480
Facilities for physically challenged persons	4.4417	.90737	480
Knowledge of Staff of Airlines	4.5958	.90877	480

8. DATA ANALYSIS AND INTERPRETATION

8.1. For this study attributes for the demographic variables are classified as under:

Table 4: Showing General Profile of the Respondents

Particular	Classification	No. of Respondents	Percentage (%)
Gender	Male	860	59.72
	Female	580	40.28
	Total	1440	100
Age	Less than 25 years	210	14.58
	25 - 50 years	582	40.42
	50 - 75 years	420	29.17
	Above 75 years	228	15.83
	Total	1440	100
Area	NCR	810	56.25
	NON-NCR	630	43.75
	Total	1440	100

Educational Qualification	Up to HSC	50	3.47
	Graduate	348	24.17
	Post Graduate	658	45.69
	Professional	384	26.67
	Total	1440	100
Occupational Status	Salaried	216	15
	Self-employed	588	40.83
	Professional	414	28.75
	Any Other	222	15.42
	Total	1440	100
Monthly Income	Less than Rs 25000	186	12.92
	Rs 25000 - Rs 50000	438	30.42
	Rs 50000 - Rs 75000	550	38.19
	Above 75000	266	18.47
	Total	1440	100

(Source: Collected from Primary Data)

Interpretation: Out of the 1500 respondents taken for the study, from which only 1440 respondents replied, 59.72% of the respondents are male, 40.42% of the respondents belong to the age-group of 26-50 years, and 56.25% belong to NCR. In educational qualification, 45.69% of the respondents are post graduate and 40.83% of the respondents are self-employed whose monthly income ranging between 100001-150000.

8.2. Descriptive Statistics

The descriptive statistics mean ranking ranges from minimum value 1 to maximum value 5. The respondents were asked to give their opinion regarding various perception dimensions namely reliability, assurance, responsiveness, empathy and tangibles. Respondents give their rating for all 20 attributes under four service quality factors for each airline and the rating were assigned as very good-5, good-4, neither good nor bad-3, bad-2 and very bad-1. Higher the rating more will be the service quality. The mean and standard deviation rating were found out for each item through SPSS. The Results are classified as under:

Table 5: Showing relationship between the personal factors and satisfaction towards services provided by selected airlines through ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	395.515	4	98.879	251.363	.000
Within Groups	564.485	1435	.393		
Total	960.000	1439			

Interpretation: It is observed from the above Table 5 that the calculated F-ratio value is 251.363 which is higher than the table value of 3.3192 at 1% level of significance. Since, the calculated value is higher than the table value, it is inferred that the satisfaction scores differ significantly among the frequency of travel. Hence, all the null hypotheses are rejected.

Table 6: Showing Mean and Standard Deviation Regarding Service Quality of Air India

Factors of Service Quality	Mean	N	Std. Deviation
Fare Value and Insurance Facility	3.0792	480	1.11826
On-time performance	3.4750	480	.89033
Allowance for carry on baggage	3.5000	480	.86693
Company's Seasonal Promotional Schemes	3.4083	480	.95402
Communication Skills In Different Languages	3.5125	480	.79130
Demo of safety instructions	3.2625	480	1.00617
Trust worthiness	3.3750	480	1.00987
Availability of personal space when seated	3.5292	480	.89021
Aircraft's ambiance	2.8833	480	1.07880
Cabin appearance/Cleanliness	2.8833	480	1.14271
Responsiveness of cabin crew members	2.8750	480	1.10842
In-Flight Entertainment Facilities	3.2500	480	.96926
In-Flight Catering Facilities	3.0500	480	.99140
Availability and Cleanliness of lavatories	3.1292	480	1.00727
Courtesy of staff	3.2500	480	.92065
Promptness of baggage delivery	3.7417	480	.61295
Adequacy of Staff at the Counter	2.9875	480	.98201
Ease of locating the required service counter	3.0083	480	1.12289
Facilities for physically challenged persons	3.0708	480	1.10379
Knowledge of Staff of Airline	3.1333	480	1.17335

Interpretation: The above Table 6 reveals that majority of respondents have given highest mean rating for availability of personal space when seated (3.52) and the least mean rating is given for responsiveness of cabin crew members (2.87). On the other hand, majority of respondents have given highest standard deviation rating for staff knowledge of Air India airline (1.17) and the least standard deviation rating is given for promptness of baggage delivery (.61). The mean and standard deviation rating indicates that service quality factors such as tangibility, responsiveness, reliability, assurance and empathy have a mean rating within range 1-4 (Very Bad-Good).

Table 7: Showing Mean and Standard Deviation Regarding Service Quality of SpiceJet

Factors of Service Quality	Mean	N	Std. Deviation
Fare Value and Insurance Facility	4.3417	480	.89997
On-time performance	4.1792	480	1.03245
Allowance for carryon baggage	4.3000	480	1.07038
Company's Seasonal Promotional Schemes	3.9875	480	1.11352
Communication Skills In Different Languages	4.2417	480	1.20192
Demo of safety instructions	4.3333	480	1.04858
Trust worthiness	4.5333	480	.89939
Availability of personal space when seated	4.1875	480	1.05894
Aircraft's ambiance	4.1917	480	1.14353
Cabin appearance/Cleanliness	4.3500	480	1.16059
Responsiveness of cabin crew members	4.5583	480	.81526

In-Flight Entertainment Facilities	4.1958	480	1.14829
In-Flight Catering Facilities	4.2583	480	.80183
Availability and Cleanliness of lavatories	4.4750	480	.81697
Courtesy of staff	4.5208	480	.71341
Promptness of baggage delivery	3.9250	480	1.29339
Adequacy of Staff at the Counter	4.3125	480	.99595
Ease of locating the required service counter	4.4167	480	.95915
Facilities for physically challenged persons	4.4417	480	.90737
Knowledge of Staff of Airline	4.5958	480	.90877

Interpretation: It is observed from the above Table 7, that the majority of the respondents have given highest rating for staff knowledge of Spice Jet airline (4.59) and least rating is given for promptness of baggage delivery (3.92). On the other hand majority of respondents have given highest standard deviation rating for promptness of baggage delivery (1.29) and the least standard deviation rating is given for courtesy of staff (.71). The mean and standard deviation rating indicates that service quality factors such as tangibility, responsiveness, reliability, assurance and empathy have a mean rating within a range 1-5 (Very Bad-Very Good).

Table 8: Showing Mean and Standard Deviation Regarding Service Quality of Jet Airways

Factors of Service Quality	Mean	N	Std. Deviation
Fare Value and Insurance Facility	3.0917	480	.84246
On-time performance	3.2875	480	.79969
Allowance for carryon baggage	3.3125	480	.72981
Company's Seasonal Promotional Schemes	3.2208	480	.87004
Communication Skills In Different Languages	3.5292	480	.72474
Demo of safety instructions	3.5375	480	.70092
Trust worthiness	3.6792	480	.57176
Availability of personal space when seated	3.6917	480	.68745
Aircraft's ambiance	3.5125	480	.66516
Cabin appearance/Cleanliness	3.2417	480	.87169
Responsiveness of cabin crew members	3.3292	480	.83503
In-Flight Entertainment Facilities	3.3042	480	.82446
In-Flight Catering Facilities	3.2958	480	.78076
Availability and Cleanliness of lavatories	3.1792	480	.78423
Courtesy of staff	3.3500	480	.81888
Promptness of baggage delivery	3.6167	480	.69814
Adequacy of Staff at the Counter	3.6458	480	.69863
Ease of locating the required service counter	3.7458	480	.56884
Facilities for physically challenged persons	3.7333	480	.60937
Knowledge of Staff of Airline	3.5250	480	.74758

Interpretation: The above Table 8 reveals that majority of respondents have given highest rating for ease of locating the required service counter (3.74) and the least rating is given for fare value and insurance facility (3.09). On the other hand, majority of respondents have given highest standard deviation rating for cabin appearance/cleanliness (.87) and the least standard deviation

rating is given for ease of locating the required service counter (.56). The mean and standard deviation rating indicates that service quality factors such as tangibility, responsiveness, reliability, assurance and empathy have a mean rating within range 2-4 (Bad-Good).

9. CONCLUSION

Satisfying passengers is the main motto of every airline. Saving money and time, safety and service of quality, in-flight service experience and off-flight service experience affect the passengers' satisfaction. In this research paper, passengers are satisfied with the service quality dimensions delivered such as in-flight service, in-flight digital service and back-office operations. According to the opinion of respondents towards service quality regarding SpiceJet Ltd., mean and standard deviation rating lies between very good to very bad, whereas Jet Airways mean and standard deviation rating lies between good to bad and Air India mean and standard deviation rating lies between good to very bad. The purpose of this study was to explore the level of passengers' satisfaction with the service quality on Indian airlines in terms of three dimensions of service quality instrument i.e., in-flight services, in-flight digital services and back-office operations. Thus, from the above analysis it is concluded that the passengers are highly satisfied with service quality of SpiceJet Ltd.

According to Capa (Centre for Asia Pacific Aviation), Japan, which flew 141 million passengers in 2016, was ahead of India whose total air passenger traffic was 131 million in the previous year, The US with 815 million passengers in 2016 enjoyed the top position, followed by China with 490 million, according to the report.

Considering all current situations of aviation growth India will reach the third spot for both domestic and international air travel ahead of the projected period. Therefore, Indian Aviation Industry has lot of scope to surpass US and China in coming years.

10. LIMITATIONS

- The sample size was of only 1500 out of which only 1440 respondents replied from the large population for the purpose of study, so there may be difference between results of sample from total population.
- There is no way to identify the target population in this study and hence scientifically random sample size has been taken.
- Respondents were reluctant to go into details because of their busy schedule.
- Due to continuous change in environment, what is relevant today may be irrelevant tomorrow.

In spite of the above limitations, a sincere effort has been made to minimize them so that the research study might be unbiased and effective.

11. FUTURE RESEARCH

The future research may attempt to study the various other variables such as, Information Technology, Complaint Handling and Organizational Culture, and many more that were not included. The future work can be enhanced by using the extended parametric tests or statistical tools with special reference to other national and international airlines.

REFERENCES

- [1]. **Air Transport Association (2002)**. *"Airlines in crisis: The perfect economic storm"*, Air Transport Association: Washington, D.C.
- [2]. **Aksoy, S., Atilgan, E., Akinci, S. (2003)**. Airline services marketing by domestic and foreign firms: differences from the customers viewpoint. *Journal of Air Transport Management* 9, 343-351.
- [3]. **Alotaibi, K.F. (1992)**. An empirical investigation of passenger diversity, airline service quality and passenger satisfaction. Unpublished Ph.D. thesis, Arizona State University, AZ.
- [4]. **Andreassen, T.W. & Lindestad, B. (1998)**. Customer loyalty and complex services: The impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise. *International Journal of Service Industry Management*, 9(1), 7-23.
- [5]. **Cronin. J.J. Taylor, S.A., (1992)**. *Measuring service quality: a re-examination and extension*. *Journal of marketing* 56, 55-68.
- [6]. **Dawkins, P. and Reichheld, F. (1990)**. *"Customer Retention as a Competitive Weapon"*, *Directors and Boards*, Vol. 14, Summer 42-47
- [7]. **International Air Transport Association (IATA), IATA Annual Review (2012)**, Beijing: Author, 2012.
- [8]. **Malhotra, N.K., Hall, j., Shaw, M., Crisp, M., (1996)**. *Marketing Research An Applied Orientation*. Prentice-Hall, Sydney.
- [9]. **Ostrowski, P.L., O'Brien, T.V., Gordon, G.L., (1993)**. *Service quality and customer loyalty in the commercial airline industry*. *Journal of Travel Research* 32, 16-24.
- [10]. **Rogerson W.P. (1983)**. *"Reputation and product quality"*, *Bell Journal of Economics*, 14, 500-510.
- [11]. **Soloman. M (1985)**. *"Packaging the service provider"*, *Service Industry Journal*, 5, 64-71.
- [12]. **Sultan, F., Simpson M.C., (2000)**. International service variants: airline passenger expectations and perceptions of service quality. *Journal of Services Marketing* 14, 188-216.
- [13]. **Tabachnick B.G., Fidell, L.S., (2001)**. *Using Multivariate Statistics*. Allyn and Bacon, Boston.
- [14]. **Tepeci M. (1999)**. *"Increasing brand loyalty in the hospitality industry"*, *International Journal of Contemporary Hospitality and Management*, 11(5), 223-229.