Journal of Information & Optimization Sciences
ISSN 0252-2667 (Print), ISSN 2169-0103 (Online)
Vol. 44 (2023), No. 8, pp. 1665–1684
DOI : 10.47974/JIOS-1483

A study on impact of service quality on customer satisfaction with low-cost carriers in India

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Abstract

Civil Aviation Industry is one of the fastest-growing industries in India. Passengers are most concerned about their choice of airlines for their travel purposes. This research paper mainly focuses on identifying the influence of service quality on customer satisfaction with low-cost carriers in India. The study also explores the gap between low-cost air carriers in India regarding the overall quality of airline service efficiency, customer satisfaction, and other selected attributes. The research is based on a literature review and an initial interpretation of a survey primarily designed to classify the views of passengers who have flown in Indigo, AirAsia, Go Air and SpiceJet. This study would allow Airlines to understand what passengers expect from airlines regarding service quality and provide input to service providers.

Subject Classification: *03B52.*

Keywords: *Service quality, SERVQUAL model, Low-cost carriers, Aviation, Airline service.*

1. Introduction

The airline sector is one of the fastest-growing global industries in India. The aviation sector in India is anticipated to grow to be the third-largest in the world by the year 2030. In FY21, India carried 115.38 million passengers. International passenger traffic totaled 10.13 million, while domestic passenger traffic totaled 105.5 million.

The Indian government has been attempting to build more airports in order to handle the increased aviation traffic. India has 103 operating airports as of March 2019. By FY40, India plans to increase the number of

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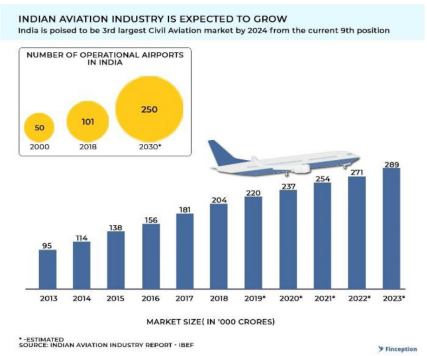

Figure 1

operating airports to 190–200. Additionally, the industry's growing demand has increased the quantity of flying aircraft. There were over 620 aircraft being used by scheduled airline companies in India as of July 2018. By 2027, 1,100 planes are anticipated to be in operation.

In this expanding industry, the most important factor to gauge will be the calibre of airline services. The number of passengers flying is rising across the board in Figure 1. Before making a purchase, passengers will focus more on the various services provided by the airlines. The aviation industry makes a significant contribution to progress and expansion.

Any region can use it as a big economic engine for growth and wealth. The rapidly expanding aviation sector in India transports 48 million tonnes (MT) of freight by 920 airlines, uses 4,200 airports, and operates 2,700 aircraft globally each year, handling close to 2.7 billion people as shown in Figure 2.

Figure 2

Literature Review

The quality of service is the most essential measure for esteeming customer expectations and satisfaction. Most of the literature discusses

the brand image and value for money as the sources of satisfaction in choosing low-cost airways (Han et al. 2018; Wongleedee, 2017; Rajaguru, 2016). The studies (Koklica et al., 2017; Ferrer-Rosell & Coenders , 2017) focused on the consequences of customer satisfaction and its antecedents based on the quality of services provided by the airways with tourist spending behaviour. Factors such as loyalty, tangible, reliability and responsiveness were significantly related to Customer Satisfaction (Lai-Ying Leong, 2015). A few studies (Murakami 2015; Acar & Karabulak 2015) found that low-cost airways initially served better than full-service domestic airlines. Wen & Chen (2017) discovered that frequent travellers would book tickets at the lowest possible fares even though low-cost airlines had fluctuating pricing policies for the same routes. The literature led the path towards theoretical underpinnings.

Theoretical Background

Zethaml developed the SERQUAL approach, 1988, as shown in Figure 3, captures perceptions of service qualities and predicts customer satisfaction. The theoretical studies can be categorised based on customer satisfaction and loyalty. Studies documented frequent travellers choose low-cost airlines with value for money vs full-service airways (Maulisa 2018; Chen and Chang, 2005; Lai-Ying Leong, 2015). Further, Singh (2016) used the five-factor SERVQUAL model, namely Reliability, Tangibility, Assurance, Responsiveness and Empathy, to describe assurance as to the most common requirement among the low-cost airline services (Singh 2016).

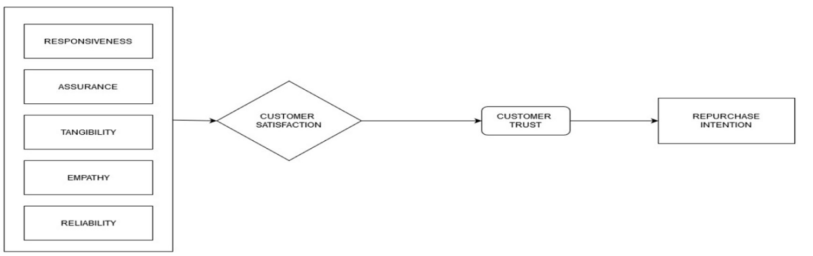

Figure 3

Statement of the Problem

The study addresses the research gap of the previous research while doing the same; it has been found that there have not been many studies

conducted in India concerning the service quality of low-cost carriers affecting the customer satisfaction of the passengers.

Most of the studies on the SERVQUAL model have used customer satisfaction as the prime variable. Yet customer loyalty and customer trust were not considered. A few research carried out in respect of variables such as customer trust and loyalty that would affect the repurchase intention and passengers' willingness to opt for the same airline on the consecutive travel.

Objectives of the Study

- To understand the impact of service quality on customer satisfaction with low-cost carriers in India
- To understand the impact of customer satisfaction on customer loyalty and trust
- To understand how customer loyalty and customer trust will affect repurchase intention

Scope of the Study

In any form of company, any marketer's ultimate aim or purpose is to please the consumer. In today's cut-throat competitive climate, high passenger satisfaction is one of the significant assets for air companies. If a business provides passengers with benefits equal to or above the customer's needs, the passenger satisfaction service occurs and will always be value-added. If consumers are happy with the airline's services, they may purchase more or use services repeatedly. Based on that, repurchase, Intention will be there in the mind of customers.

Analysing the current service quality of the airlines (low–cost) servicing in India will help to know the level of service quality and understand what a customer needs. Thus, the company can provide better service by focusing more on the aspects that have more significance.

Research Methodology

The study used SERVQUAL attributes based on the review of literature based on brand extension and their influence in determining the customer's purchase decision. A total of 431 responses were collected from various regions in India. The sample included 290 Male and 141 Females aged 18 to 55 years, with 78.4% of respondents being students and 20% of the respondents being employed. Further, 209 respondents choose to

travel in Indigo Airlines and 86 respondents uses infamous airlines. Apart from Indo airlines, 62 respondents travel in Air Aisa. The responses were recorded through a self-administered questionnaire that was distributed to respondents. The data was collected based on a simple random sampling method.

Tool and Techniques:

Statistical techniques such as reliability, sample adequacy test, factor analysis and regression analysis were executed through IBM SPSS software (ver. 26.0) to test the significance and relevance of the Hypothesis.

Questionnaire and Measurement of Variables

Respondents were expected to answer a series of questions regarding the various variables of the proposed model, such as Attitude, Brand Image, Values and Beliefs, Advertisements, and purchase intention of the customer. Due to the nature of the model variables, the Likert scale was used to measure the opinions of the customer. The five-point scale (1 is being strongly disagreeing & 5 is being strongly agreeing) represented the opinion of the consumer in the following factors:

Responsiveness: covers service information, prompt responses from the airline personnel and airways capacity to cancel the flights.

Assurance: The cabin crew accommodativeness and courtesy towards the passengers captured the factor. Further employee knowledge to answer customers' questions was also included.

Tangibility: includes aircraft's facilities such as appearance, seating, maintenance, quality and variety of meals offered on the flights.

Empathy: covers ease of booking, regularity in flying destination and meeting the needs of the passengers.

Reliability: includes information from passengers such as convenient schedules, hygiene in aircraft, safety measures and timely departure/ arrival of the airlines.

Customer satisfaction: comprises inflight service quality, check-in, baggage handling and passenger attitude towards the airways.

Customer trust: encompasses the impression of the airlines, passenger travel experience and the decision on choosing the airways.

Repurchase intention: for future travel, service quality of airlines, recommending the airlines to friends/relatives and promotional offers on the repurchase of tickets.

Finally, all the responses were recorded based on the eight dimensions …. Qualities were considered for further fundamental and regression analysis.

Table 1

Depicts a List of qualities/criteria and sub-criteria to decide on the service quality and satisfaction of the customers.

Sl. No.	Quality	Sub-Criteria
I	**RESPONSIVENESS**	
RES1		Airline personnel was keeping customers informed about when service will be performed
RES2		The prompt response of employees is observed to your complaints and requests
RES3		Believe that airline has the capacity to respond to cancelled or delayed flights
II	**ASSURANCE**	
ASS4		Airline personnel were very helpful at all stages
ASS5		The cabin crew seems to be very courteous towards the passengers
ASS6		Employees have the knowledge to answer your questions
III	**TANGIBILITY**	
TAN7		I am happy to see that aircraft seats are well maintained
TAN8		The cabin crew have a smart appearance
TAN9		Satisfied with the variety and quality of inflight meals
IV	**EMPATHY**	
EMP10		The airline is offering numerous easy to use ticketing channels
EMP11		Happy with the frequent flyer program offered by the airline
EMP12		Airlines express spontaneous care and concern for passenger needs
V	**RELIABILITY**	
REL13		The airline provides convenient schedules
REL14		Aircraft are maintained with proper hygiene
REL15		Safety & performance of the airline
REL16		Timely availability (on-time performance) of the airline

Contd...

VI	**CUSTOMER SATISFACTION**	
CUS17		Overall impression of onboard service quality like inflight foodservice and entertainment system
CUS18		Airport services related to Check-in, Baggage Handling and Lounge services
CUS19		Positive attitude towards the airways company
VII	**CUSTOMER TRUST**	
CUST20		Care towards the passengers
CUST21		Customer experience with the airline
CUST22		Wise decision in choosing airlines for travel
VIII	**REPURCHASE INTENTION**	
RPI23		Choosing the airline for future travel
RPI24		Recommending the airline to friends and family
RPI25		Quality of service influenced in repurchase intentions
RPI26		The attractiveness of promotional offers in repurchasing the tickets

Results

Table 1 presents reliability analysis and factors with alpha values consisting of Responsiveness, Assurance, Tangibility, Empathy, Reliability, Customer satisfaction, trust and Repurchase intention.

Test for statistical significance

Table 2 depicts the significance of hypotheses about factors and demographic variables. However, Independent (IV) and Dependent variables (DV) are not significantly different.

Table 2

Construct Reliability Values

The Cronbach alpha for the three dependent and five independent variables measures 0.938, indicating that the measures have acceptable internal consistency. Thus, constructs with alpha values are presented below:

Sl. No	Constructs	Items	Cronbach's alpha
I	Responsiveness	RES1, RES2, RES3	0.666
II	Assurance	ASS1, ASS2, ASS3	0.741
III	Tangibility	TAN1, TAN2, TAN3	0.650
IV	Reliability	REL1, REL2, REL3	0.724
V	Empathy	EMP1, EMP2, EMP3	0.662
VI	Customer Satisfaction	CUS1, CUS2, CUS3	0.733
VII	Customer Trust	CUT1, CUT2, CUT3	0.808
VIII	Repurchase Intention	RPI1, RPI2, RPI3	0.818

ANOVA Analysis

ANOVA is used to test the significance of two or more variables. The Null hypothesis is that no significant mean difference exists between the variables with a 95% confidence level.

Table 3

Test of significance among dependent and independent variables

Hypothesis No	Variable Relation	F statistics	Significant Value
H_{01}	Responsiveness - Income	2.918	0.055*
H_{02}	Responsiveness - Age	1.900	0.129
H_{03}	Responsiveness - Occupation	4.056	0.007*
H_{04}	Responsiveness - Edu	3.978	0.019*
H_{05}	Assurance - Income	0.049	0.953
H_{06}	Assurance - Age	3.602	0.014*
H_{07}	Assurance - Occupation	1.022	0.383
H_{08}	Assurance - Edu	0.433	0.649
H_{09}	Tangibility - Income	2.173	0.155
H_{10}	Tangibility - Age	12.617	0.00**

Contd...

H_{11}	Tangibility - Occupation	1.219	0.302
H_{12}	Tangibility - Edu	0.740	0.478
H_{13}	Empathy - Income	0.438	0.645
H_{14}	Empathy - Age	0.816	0.485
H_{15}	Empathy - Occupation	0.612	0.608
H_{16}	Empathy - Education	2.208	0.111
H_{17}	Reliability - Income	0.617	0.540
H_{18}	Reliability - Age	0.490	0.689
H_{19}	Reliability - Occupation	3.285	0.021*
H_{20}	Reliability - Edu	0.481	0.619
H_{21}	Customer Satisfaction - Income	0.324	0.723
H_{22}	Customer Satisfaction - Age	8.177	0.000**
H_{23}	Customer Satisfaction - Occupation	1.348	0.258
H_{24}	Customer Satisfaction - Edu	1.029	0.358
H_{25}	Customer Trust - Income	1.663	0.191
H_{26}	Customer Trust - Age	3.618	0.013*
H_{27}	Customer Trust - Occupation	0.730	0.534
H_{28}	Customer Trust - Edu	0.715	0.490
H_{29}	Repurchase Intention - Income	2.602	0.075
H_{30}	Repurchase Intention - Age	9.219	0.000**
H_{31}	Repurchase Intention - Occupation	0.669	0.572
H_{32}	Repurchase Intention - Edu	1.879	0.154

*, **, Significant at 5% & 1% level

According to Table 3, H_{01}, H_{03}, H_{04}, H_{06}, H_{10}, H_{19}, H_{22}, H_{26} & H_{30} are significant at 0.05; hence it can be declared that there is a considerable difference among Responsiveness to Income (H_{01}), Occupation (H_{03}) and Level of Education (H_{04}). Similarly, it was found that the mean age was significantly different from Assurance (H_{06}), Tangibility (H_{10}), Customer Satisfaction (H_{22}), Customer Trust (H_{26}), and Repurchase Intentions (H_{30}). As per the analysis mean age of the respondents did not bear any significance on Responsiveness (H_{02}), Empathy (H_{14}), and Reliability (H_{18}). There were no significant mean differences from Assurance to Income (H_{05}), Occupation (H_{07}), and Education (H_{08}). Likewise, Income (H_{09}), Occupation (H_{11}), and Edu (H_{12}) were not significantly different from Tangibility. Further, Hypotheses about Empathy, Reliability, Customer Satisfaction, Customer Trust, and Repurchase Intention were not substantially different from the respondents' Income, Education, and

Occupation. A regression test was carried out to determine the influence among dependent and independent variables.

Regression Analysis

Regression analysis among the variables helps determine the proposed model's validity. As follows, the null hypothesis for the regression analysis can be detailed.

Table 4

Indicating influence of independent to dependent variables

Hypothesis No	Variable Relation	Significance	Unstandardized Beta value	R^2
H_{01}	Responsiveness - Customer Satisfaction	0.00**	2.045	0.281
H_{02}	Assurance - Customer Satisfaction	0.00**	1.908	0.300
H03	Tangibility on Customer Satisfaction	0.00**	2.148	0.288
H04	Empathy on Customer Satisfaction	0.00**	1.757	0.394
H05	Reliability on Customer Satisfaction	0.00**	1.181	0.427
H06	Customer Satisfaction on Customer Trust	0.00**	0.725	0.528
H07	Customer Trust on Repurchase Intention	0.00**	1.015	0.478

** significant at 1% level.

From the regression results as per Table 4 and Figure 4, It can be discovered that there is a significant influence between responsiveness, Assurance, Tangibility, Empathy and Reliability on Customer satisfaction. Further, Customer Satisfaction was influenced by Customer Trust. Similarly, Repurchase Intention was significantly influenced by Customer trust. Through the analysis, a SERVQUAL model was developed and depicted below:

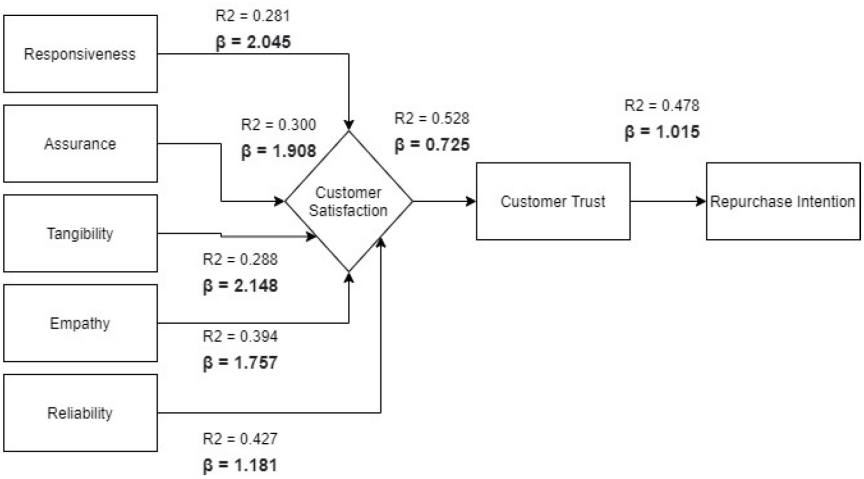

Figure 4
Showing SERVQUAL model

Discussions

After conducting One-way Anova, several variables have been tested. It has been identified that there is a significant difference in means of variables and age in many cases. This implies that age significantly impacts Assurance, Tangibility, Customer satisfaction, Customer Trust and Repurchase Intention, especially in the age group between 18-25.

From regression analysis, it was found that there was a significant relationship between all variables that were tested in the study. In all the relations, it is found that the effective value is 0.000. This also implies that the error is less than 0.05 and that will be a perfect fit to reject the proposed null hypothesis. Age group 18-25 will pay more attention in many factors while choosing an airline for their travel purpose than other age groups.

Findings and Conclusion

From the regression analysis, it is observed that the Reliability is the major factor which contributes most in achieving customer satisfaction, and the achieved customer satisfaction helps in building the trust and ultimately lead into the repurchase intention. It is observed that 42.7% influence is seen in customer satisfaction due to the factor reliability, the second most factor which contributes most to the customer satisfaction

includes Empathy followed by assurance. There is around 39.4% influence on customer satisfaction due to the empathy factor and 30.0 % influence on customer satisfaction due to the Assurance Factor.

The subfactors that covered under Reliability in the study was about convenient schedule times, Proper hygiene and maintenance, safety performance and on time performance of the airline. From the study it is understood that Most of the people are looking at this factor other than price and the companies should concentrate more on providing these aspects then independently the service quality will improve automatically.

The major findings related with the anova analysis, it is found that the people in the particular age group of 18 – 25 is looking at all the factors that will lead to customer satisfaction and subsequently the repurchase Intention., From the analysis the highest significant value 0.00 is observed in Tangibility – Age variables, This clearly indicates that Irrespective of the occupation, educational qualifications and other demographic variables, People of all age groups are looking into the factors like appearance of the cabin crew, quality of the inflight meals etc.

Limitations

The major limitations associated with the study includes: The study is related with the opinions of the people with respect to the airlines that they have travelled last time, There can be variations in the opinions of the people where they might like the food quality in one particular airline while the other entertainments in another airline, This study doesn't give the freedom to the customers in order to express their opinion based on all airlines, The study accounts only in collecting data with respect to the last travelled airline.

All the questions that the research is covering is based on closed ended type, In some questions Respondents may have extra points that they would like to express, while this survey (or the research) is not providing the option to record their expressions.

Scope for Future Study

Variables which have been account into in this research includes Responsiveness, Assurance, Tangibility, Empathy, Reliability (Independent variables), While adding more variables with respect to the AIRQUAL model will enhance the study, This study has been conducted in India, The same study can be conducted in other similar countries where low cost

airlines operate and can compare the study with respect to the factors that the passengers look into on other countries thus In the further research on this topic, considering other variables will enhance the findings and adding more respondents will give more clarity to the result. Since this study is done in India, covering respondents from foreign countries will give more impact on the findings. This research will provide useful insights to marketers to formulate different strategies depending upon the degree of similarity on the extension pattern and the characteristics of the target audience.

Implications

Practical Implications: This study will help the airlines to give better service to the passengers and also will help the low-cost carriers of India to improve the service quality. This study will also help passengers to focus more on some aspects while purchasing the tickets. This study will help the airline company to understand which all are the factors contribute more in building brand value and they can accordingly plan their branding strategies

Theoretical Implications: The theoretical background associated with the study is SERVQUAL model. The study will help to understand the relevant dimensions which will affect customer satisfaction more effectively and on how this dimension will help on building customer loyalty and also in repurchase intention.

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