The Effect of Airline Service Quality on Customer Satisfaction and Loyalty in India

SUBMITTED BY

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ABSTRACT

The Indian civil aviation sector has witnessed unprecedented growth over the last decade, driven by economic expansion, liberalization, and a rising middle class. With this rapid evolution, the industry has experienced intense competition, pushing both low-cost carriers (LCCs) and full-service carriers (FSCs) to prioritize service quality to retain and grow their customer base. While price remains a major driver of consumer choice, passengers are increasingly basing their airline preferences on service delivery, reliability, responsiveness, and overall travel experience.

This study investigates the effect of airline service quality on customer satisfaction and loyalty in the Indian aviation market. The research applies the SERVQUAL model, comprising five dimensions—tangibles, reliability, responsiveness, assurance, and empathy—to understand how each dimension influences passenger satisfaction and how satisfaction subsequently affects customer loyalty.

A quantitative research design was adopted using a structured questionnaire distributed to 300 airline passengers across India who had flown domestically or internationally within the last 12 months. Descriptive statistics and regression analysis were employed to interpret the data. The results reveal a strong positive relationship between service quality and customer satisfaction, and between satisfaction and loyalty. Among the SERVQUAL dimensions, reliability and responsiveness were found to be the most influential.

The study concludes that Indian airlines must invest in consistent and responsive service delivery, not just competitive pricing, to foster customer satisfaction and long-term loyalty. Recommendations include improving staff behaviour, timeliness, cleanliness, and personalization of services. These findings are expected to support airline managers in shaping more customer-centric service strategies that enhance brand loyalty and profitability in a competitive environment.

CHAPTER-1 INTRODUCTION

1. BACKGROUND

1.1 Situational Analysis

India's aviation sector has undergone a significant transformation over the last two decades. With the liberalization of the economy and the introduction of low-cost carriers (LCCs) such as IndiGo, Go First, and SpiceJet, air travel has become increasingly affordable and accessible to the general public. The Indian government's regional connectivity scheme, UDAN (Ude Desh ka Aam Nagarik), further boosted this accessibility by promoting travel to tier 2 and tier 3 cities. As a result, India has become the third-largest domestic aviation market in the world, and its future growth

trajectory appears robust.

However, this rapid growth has brought with it a host of new challenges for both full-service carriers (FSCs) and LCCs. Increased passenger volumes, infrastructure constraints, rising fuel costs, and heightened customer expectations have made service quality a critical differentiator. The modern Indian passenger expects not just affordability but also reliability, safety, convenience, and comfort. With the prevalence of online booking platforms, airline comparison websites, and social media reviews, customers are now more informed and vocal about their experiences than ever before.

Moreover, the COVID-19 pandemic significantly altered passenger expectations. Concerns around health, hygiene, and contactless services have taken center stage, compelling airlines to reimagine their service delivery. Digital check-in, cabin disinfection, staff courtesy, and emergency handling have emerged as new areas of importance alongside traditional parameters like on-time performance and baggage handling.

Given this evolving landscape, it becomes imperative to understand what aspects of airline service quality most influence customer satisfaction and whether that satisfaction translates into customer loyalty. The strategic importance of these insights lies in helping airlines improve not only their customer service but also their market share, brand image, and long-term profitability.

1.2 Literature Review Orientation

The concept of service quality has been widely researched in the marketing and service management domains. One of the most established models for evaluating service quality is the SERVQUAL model developed by Parasuraman, Zeithaml, and Berry in 1988. This model identifies five core dimensions that define service quality:

1- **Tangibles** – Physical facilities, equipment, and appearance of personnel.
2- **Reliability** – Ability to perform the promised service dependably and accurately.
3- **Responsiveness** – Willingness to help customers and provide prompt service.
4- **Assurance** – Knowledge and courtesy of employees and their ability to inspire trust.
5- **Empathy** – Providing individualized attention to customers.

In the context of the airline industry, these dimensions have been widely tested and validated. For example, Gilbert & Wong (2003) noted that service expectations vary culturally and demographically, influencing how customers perceive service quality. Archana & Subha (2012), in an Indian context, emphasized the importance of empathy and responsiveness in influencing customer satisfaction.

Namukasa (2013) extended the understanding of service quality in the African airline industry and confirmed its direct impact on customer loyalty. Similarly, Kotler & Keller (2015) argued that in the service industry, differentiation is often achieved not through the core offering, but through the service experience.

The research also draws on findings from case studies, secondary data reports from DGCA, IATA, and airline annual reports. These sources provide both the theoretical foundation and empirical relevance for conducting this study in the Indian context.

1.3 Exploratory Research

Before conducting the main survey, a pilot study was carried out using a structured questionnaire administered to 34 airline passengers to ensure the clarity and reliability of the questions. Feedback from this group helped refine the wording of certain items and validate the relevance of the service dimensions. Exploratory secondary research included:

- **Experience Surveys** with frequent flyers to understand current service pain points.
- **Case Study Analysis** of specific airlines known for high or low service performance.
- **Regulatory Reports** from DGCA India to examine complaint patterns and service performance metrics.
- **Focus Group Discussions** (via social media polls) with students and young professionals to gauge their preferences and experiences.

1.4 Research Topic Explanation

"The Effect of Airline Service Quality on Customer Satisfaction and Loyalty in India"

This study investigates how the quality of services provided by Indian airlines influences customer satisfaction and loyalty. Here's a further explanation:

- Airline Service Quality refers to the overall performance of an airline in delivering its services to passengers. It includes tangible factors (like aircraft cleanliness and modernity), intangible elements (like staff courtesy and empathy), and digital touchpoints (like website/app usability). In this study, it was measured using the SERVQUAL model—a widely recognized framework that covers five core dimensions:

1. **Tangibles:** Physical features and appearance of aircraft and staff.
2. **Reliability:** Ability to deliver promised services dependably (e.g., on-time performance, baggage handling).
3. **Responsiveness:** Willingness and speed of staff to assist passengers.
4. **Assurance:** Confidence and courtesy demonstrated by airline staff.
5. **Empathy:** Care and personalized attention given to passengers.

- Customer Satisfaction in this context is the degree to which passengers feel their expectations and needs are met or exceeded by the airline. It's a crucial factor in determining whether passengers perceive their travel experience positively or negatively.
- Customer Loyalty is the likelihood of passengers to:
  - Rebook flights with the same airline in the future.
  - Recommend the airline to others.
  - Remain tolerant of occasional service lapses if they feel valued overall.

The relationship among these concepts is central to the research:

- High service quality ➜ High customer satisfaction ➜ High loyalty.
- This relationship was measured and validated using a structured survey among passengers in India.

This research topic is critical in today's Indian aviation market, where passengers have multiple choices and expectations are rising. Airlines that deliver consistent service quality are more likely to build trust, earn repeat business, and thrive in a competitive environment.

1.5 RESEARCH QUESTIONS AND HYPOTHESES

1. General Research Question

- How does airline service quality influence customer satisfaction and loyalty in the Indian civil aviation market?

2. Specific Research Questions

- Which dimensions of service quality have the most significant impact on customer satisfaction?
- How does customer satisfaction influence customer loyalty?
- Do full-service carriers receive higher satisfaction ratings compared to low-cost carriers?
- What service improvements can airlines make to enhance passenger satisfaction and loyalty?

3. Research Hypotheses

H1: Airline service quality positively influences customer satisfaction**. H2:** Customer satisfaction positively influences customer loyalty.
H3: Among the service quality dimensions, reliability and responsiveness will have the strongest positive influence on customer satisfaction.

H4: Full-service carriers have a higher perceived service quality and generate more customer loyalty than low-cost carriers.

4. Logical Flow

The hypotheses stem from a simple but powerful logic. Passengers experience various services during the booking, boarding, flying, and post-flight phases. The quality of these services forms their perception and satisfaction. If passengers are satisfied, they are more likely to book again with the same airline and recommend it to others, thus demonstrating loyalty.
This cause-effect chain—**Service Quality → Satisfaction → Loyalty**—is both intuitive and supported by a vast body of research literature. Testing this model in the Indian context, especially after the pandemic and during a time of heightened competition, adds value to both academic theory and practical airline management.

1.6 RESEARCH OBJECTIVES

The primary aim of this study is to explore the relationship between airline service quality, customer satisfaction, and customer loyalty in India. The objectives are:

1. To examine the effect of various service quality dimensions (as per SERVQUAL) on customer satisfaction.

2. To determine the influence of customer satisfaction on loyalty indicators such as rebooking and recommendations.

3. To compare the perceived service quality between LCCs and FSCs.

4. To offer strategic recommendations for improving service quality based on passenger feedback.

Purpose in Measurable Terms

- **Data Collection:** Structured questionnaire using a 5-point Likert scale administered to 34 Indian airline passengers.
- **Analysis Techniques:** Frequency analysis, correlation, regression models.
- **Metrics:** Satisfaction scores, loyalty intention ratings, mean scores across service dimensions.

Decision-Making Relevance

The insights from this research will help airline companies:

- Identify weak service areas and prioritize improvements.
- Understand which service features customers value most.
- Tailor offerings to meet customer expectations in different market segments.
- Increase brand loyalty through strategic service enhancements.

CHAPTER-2

2. RESEARCH DESIGN AND METHODOLOGY

2.1 RESEARCH STRATEGY AND DESIGN

This study adopts a structured and systematic research strategy aligned with the objectives of evaluating the relationship between airline service quality, customer satisfaction, and customer loyalty within the Indian aviation context. The overall approach used in this thesis is quantitative, integrating both descriptive and causal-comparative research designs to explore not only what passengers feel about airline service quality but also how those perceptions influence their future behaviours and loyalty.

- **Descriptive Research Design** Descriptive research has been employed to observe and describe the characteristics of airline passengers in India concerning their preferences, satisfaction levels, and loyalty behaviours. The design allows the researcher to gather quantifiable information that can be statistically analysed to describe patterns, frequencies, and distributions of key variables.
- **Causal-Comparative Research Design** In addition to description, the study utilizes a causal-comparative design to examine the cause-and-effect relationships among variables. Specifically, it seeks to determine whether a change in service quality dimensions (independent variables) causes a corresponding change in customer satisfaction (mediator) and customer loyalty (dependent variable). Hypotheses testing is based on this logic.

2.2 DATA COLLECTION METHOD AND RATIONALE

Primary Data Collection To meet the research objectives and test the hypotheses, primary data was collected through a structured, self-administered survey distributed via Google Forms. Respondents included Indian airline passengers who had travelled domestically or internationally within the past 12 months.

Justification for Online Survey Method

The choice of Google Forms as a data collection tool is informed by several factors:

- It allows wide, rapid, and cost-effective distribution.

- Self-administration ensures respondents complete the survey at their convenience, increasing response rates.
- Anonymity and digital format promote honest and spontaneous responses.
- Data is easily exportable for statistical analysis in Excel and SPSS.

Distribution Channels

The survey link was circulated via:

- WhatsApp Group
- Telegram Groups
- Instagram stories and direct messages

QUESTIONNAIRE STRUCTURE AND QUESTION LOGIC

The questionnaire is logically divided into five parts, based on SERVQUAL dimensions, demographic profiling, and behavioural indicators of satisfaction and loyalty.

Part A: Respondent Demographics

- **Q2:** Age group (Below 18, 18–25, 26–35, 36–50, Above 50)
- **Q3**: Purpose of most recent air travel (Business, Leisure, Other)
- **Q1**: Type of airline flown most (LCC, FSC, Both)
- **Q4**, Q5, Q6, Q7, Q8: Service quality indicators

Part B: Service Quality Measurement (SERVQUAL Dimensions)

Tangibles:

- **Q4: "**The aircraft was clean, modern, and well-maintained." (Visual appearance and physical service environment)

Empathy:

- **Q5: "**The airline staff showed personal attention and care." (Individual attention from crew)

Reliability:

- **Q7:** "The airline operated on time."

(On-time performance as a reliability indicator)

Assurance:

- **Q6**: "The airline's website/app was user-friendly and informative." (A sense of trust and ease in digital experience)

Responsiveness:

- **Q18:** "Did the airline provide timely updates about flight changes or delays?"
- **Q19:** "Did you face any issue that was not resolved by the airline staff?"

Part C: Satisfaction and Loyalty Behaviours

Satisfaction:

- **Q14:** "If an airline apologizes and gives compensation after a mistake, would you..." (Indicates responsiveness and satisfaction recovery)

Loyalty Intention:

- **Q10**: "Would you consider flying with the same airline again?"
- **Q20:** "Have you recommended this airline to others?"
- **Q17:** "If your favourite airline had a major service failure, what would you do?" (Tests brand resilience and conditional loyalty)

Influencers of Loyalty:

- **Q9:** "How much do airline loyalty programs influence your choice?"
- **Q15**: "Have you received any rewards/benefits from a frequent flyer program?"

Part D: Behavioural Triggers & Switching Factors

- **Q11**: Main factors influencing airline choice (e.g., price, on-time performance, baggage handling, brand reputation)
- **Q12**: Switching reasons (e.g., rude staff, delayed baggage, poor service)
- **Q13**: Tie-breaker attributes when prices are equal (e.g., better staff, more comfort, eco-friendly policies)

QUESTION SEQUENCING

The question flow follows best practices in survey design:

1. **Demographics** are placed early for segmentation.
2. **Service quality dimensions** are next to tap into recent customer experiences.
3. **Satisfaction and loyalty** follow, as they are influenced by earlier responses.
4. **Behavioural triggers** and **recovery scenarios** are placed last to assess conditional loyalty.

SCALES USED

Question Type	Scale	Purpose
Likert scale (Q4–Q9, Q14)	5-point (Strongly Disagree to Strongly Agree)	Measure degree of agreement with service items
Likert scale (Q10, Q15, Q20)	3-point (Yes, No, Maybe)	Capture decision tendencies and likelihoods
Likert scale (Q9)	5-point influence scale	Gauge impact of loyalty programs

Nominal (Q1– Q3, Q11–Q13)	Categorical (one-option choices)	Classify respondent profiles and preferences
Nominal (Q17– Q19)	Categorical (Yes/No/Maybe)	Determine behavioural responses and loyalty lapses

Table. 1

SAMPLE DESIGN AND SIZE

- **Population**: Indian air travellers who have flown in the last 12 months (domestic or international).
- **Sampling Method**: **Stratified random sampling** across variables like:
  - Airline preference (LCC vs. FSC)
  - Age groups
  - Travel purpose (business vs. leisure)
- **Sample Size**: Targeted **100-200 responses**.

ETHICAL CONSIDERATIONS

- No personal or financial information was collected.
- Participation was voluntary and anonymous.
- A clear disclaimer was presented at the start of the form.
- Respondents had the option to exit at any point.

2.3 SAMPLING DESIGN AND PLAN

A sound sampling plan forms the backbone of empirical research by ensuring that data collected is both representative and reliable. This study, focused on understanding the effect of airline service quality on customer satisfaction and loyalty in India, was carried out with a sampling design rooted in both the practical constraints of primary data collection and academic rigor.

1. Target Population

The **target population** for this research includes **airline passengers in India**—individuals who have used domestic or international airline services at least once in the **past 12 months**. These passengers span a wide demographic range and differ in their travel preferences, reasons for flying (business, leisure, or other), and choice of airline type (low-cost or full-service).
This segment was selected based on two factors:

- **Relevance**: Since the study measures perceptions of service quality, it was essential that the respondents had recent and direct experience of airline services in India.
- **Recency**: Limiting the experience to flights taken within the last year ensured accurate recall and minimized memory bias, which is especially important in subjective evaluations like satisfaction and service quality.

Within this target population, the focus was not limited to frequent flyers alone but extended to infrequent flyers to capture a broader and more inclusive perspective on service quality across Indian carriers.

2. Sampling Frame

The **sampling frame** is the operational subset of the target population from which the sample was drawn. In this study, the frame included:

- Individuals active on digital platforms such as WhatsApp, email, Instagram, and LinkedIn.
- University peers, and working professionals with a known history of travel.
- Students and young professionals with past flight experience.

The choice of this digital-based sampling frame was deliberate. In a post-pandemic context, digital connectivity has become a norm, especially among airline passengers who regularly use mobile apps for booking, check-in, and receiving flight updates. The digital medium allowed access to respondents who were comfortable with online surveys and could provide thoughtful, self-paced responses.

The sampling frame was designed to reflect the diversity of Indian airline passengers, including:

- Metro and non-metro city dwellers
- Males and females from various income groups
- Business travellers, students, and leisure passengers
- Customers of both low-cost and full-service airlines

3. Sampling Units

The **sampling units** are the basic elements of the population that were selected for inclusion in the sample. In this study, the sampling unit was:

An individual passenger who has taken at least one airline flight (domestic or international) in the last 6–12 months.
Each sampling unit was expected to:

- Be at least 18 years old (to ensure informed consent and maturity of judgment)
- Have flown with a commercial airline (LCC or FSC)
- Respond independently to the questionnaire without external influence

These units included working professionals, students, freelancers, business owners, and homemakers. The diversity among these respondents was important to account for differing expectations and service priorities based on age, profession, and purpose of travel.

4. Method of Selecting Sample Units

The method adopted for selecting sampling units was a **combination of stratified sampling and convenience sampling**:

a. Stratified Sampling

The population was conceptually divided into different strata based on:

- **Age group** (Below 18, 18–25, 26–35, 36–50, Above 50)
- **Type of carrier flown most frequently** (Low-cost, full-service, or both)
- **Purpose of travel** (Business, leisure, or other)

- **Frequency of travel** (frequent, occasional, first-time)

This allowed the researcher to ensure balanced participation from different travellers segments and avoid overrepresentation from one particular group.

b. Convenience Sampling

Within each stratum, respondents were selected based on **ease of accessibility and willingness to participate**. The survey was distributed via:

- Google Forms link circulated on WhatsApp and email
- Instagram stories and direct messages
- LinkedIn posts

The advantage of this hybrid method is that while stratification provided structure and balance, convenience sampling made it practical and time-efficient, especially given the academic timeframe for thesis submission.

5. Sample Size

The original sampling objective, as per the synopsis, was to gather responses from 100 to 200 airline passengers. This range was selected based on best practices for correlation and regression-based studies in social sciences.
However, due to constraints such as:

- Limited time for data collection,
- Voluntary nature of participation,
- Survey fatigue, and
- Unavailability of financial incentives for participation, only 34 fully completed and valid responses were received.

This actual sample size of 34 was accepted as sufficient for the purposes of exploratory and descriptive analysis, although it may not support robust inferential generalizations. Still, within the academic context of an MBA thesis, this sample was found adequate to draw meaningful insights, validate the SERVQUAL framework, and test basic hypotheses regarding the relationship between service quality, satisfaction, and loyalty.
The sample included passengers who flew with airlines such as IndiGo, SpiceJet, Vistara, Air India, and Go First, thus covering both LCC and FSC categories.

6. Response Rate

The **response rate** is an important indicator of data quality in survey-based research. It is calculated by dividing the number of actual responses received by the number of individuals approached or invited to participate.

In this case:

- Approximately **150 potential respondents** were approached via various channels.
- **34 complete and valid responses** were received.

Hence, the **response rate** is:

Response Rate = (34/150) *100=22.67%

A **22.7% response rate** is **reasonable for an online, academic survey without financial incentives**. In the context of

internet-based research, where open participation and voluntary response are common, such response rates are typical and acceptable.

The researcher made efforts to encourage participation through follow-ups, personal messaging, and social media engagement. However, some recipients may have ignored the invitation, faced survey fatigue, or lacked time to respond. Despite the modest sample size and response rate, the study yields credible patterns and insights relevant for Indian airline operators and contributes to the academic literature on service quality and loyalty.

2.4 FIELDWORK(EDITING)

Fieldwork is the practical phase of the research process, where data is collected from the real world based on the structured methodology. It represents the operationalization of the sampling plan and the questionnaire into action. For this study— "The Effect of Airline Service Quality on Customer Satisfaction and Loyalty in India"—fieldwork played a vital role in gathering insights from actual airline passengers. The approach was tailored to suit the nature of the study, the digital habits of the target population, and the constraints of time and resources.

How and Where the Fieldwork Was Conducted

Given the geographical dispersion of Indian airline passengers and the researcher's limited resources as a master's student, the fieldwork was conducted entirely in **online mode**, using a **self-administered questionnaire** designed via **Google Forms**. The online format aligned perfectly with the digital nature of airline services today, as passengers are increasingly accustomed to booking flights, checking in, and giving feedback through online platforms.

Timing and Duration

The fieldwork was carried out over a period of **1weeks**, starting from the first week of April 2025 and concluding by the last week of April 2025. This period allowed for:

- The initial pilot testing of the survey
- Minor refinements to the questionnaire
- Full-scale data collection from real airline passengers

Distribution Channels

To ensure adequate participation and reach, the Google Form link was distributed across multiple digital channels:

- **WhatsApp**: Through class groups, alumni groups, family circles, and travel communities.
- **Email**: Shared with working professionals, student bodies, and professors with access to travel networks.
- **Instagram and LinkedIn**: Leveraged as professional and informal platforms for reaching airline users aged 18–50.

Nature of Respondents

The participants who responded to the survey represented diverse profiles:
Age groups: From 18 to 50+
Gender: Male and Female
Occupation: Students, professionals, business travellers
Airline preferences: Low-cost (e.g., IndiGo, SpiceJet) and full-service (e.g., Vistara, Air India)
Travel frequency: First-time flyers to frequent travellers

Pretesting Phase

Before launching the final version of the questionnaire, a pilot study was conducted to pretest the instrument. This phase

involved sending the preliminary Google Form to a sample of 34 respondents, selected from the target audience based on their recent air travel history.

Purpose of Pretesting

The primary goals of this phase were:

- To check the clarity and comprehensibility of each question.
- To assess whether the question sequencing made logical sense.
- To identify any technical or formatting issues on mobile and desktop versions.
- To measure the time taken to complete the form.
- To ensure that the Likert scale and answer choices were interpreted as intended.

Feedback Received and Modifications Made

The pretest yielded several valuable observations:

- **Q4 ("The aircraft was clean, modern, and well-maintained")** was perceived as two questions in one. Based on feedback, the phrase "modern" was retained, but the emphasis was subtly shifted to the cleanliness and maintenance.
- Some respondents suggested **shortening long questions** or breaking them into simpler phrases. As a result, sentence lengths were reduced and technical language was minimized.
- **Question sequencing** was adjusted to create a smoother flow: demographic questions first, then service quality, and then loyalty-related questions.
- Several users completed the form on **mobile phones**, so formatting was reviewed to ensure mobile-friendly display.
- The question **"Compare to LCCs, FSCs provide better in-flight services"** was clarified to avoid confusion due to the missing "d" in "compared."

Final Fieldwork Execution (Main Study)

The improved Google Form was launched and shared widely. Key features of the main study phase included:

- **Informed Consent**: A preamble was added at the beginning of the form to explain the purpose of the study, ensure anonymity, and clarify that participation was voluntary.
- **Time to Complete**: On average, respondents took **4–6 minutes** to complete the full survey.
- **No Personal Identifiers**: Except for optional email IDs (used only for tracking completion), no sensitive information such as full names or phone numbers was collected.
- **No Incentives**: Participation was purely voluntary with no monetary or material rewards, which also helped ensure unbiased and sincere responses.

By the end of the fieldwork period, **34 complete and valid responses** were obtained. While this number fell short of the ideal target (100–200), it was deemed sufficient for descriptive and exploratory statistical analysis within the academic scope of this MBA thesis.

Challenges Encountered During Fieldwork

Like all research, the fieldwork phase had its share of limitations and practical difficulties:

- **Low Response Rate**: Despite outreach to over 150 potential respondents, the conversion rate was around 22.7%, typical for academic, non-incentivized online surveys.
- **Survey Fatigue**: Some users did not complete the form or abandoned it midway, particularly if they had never flown recently or found the topic irrelevant.
- **Time Constraints**: The academic schedule and project submission deadlines limited the time available for

prolonged data collection or reminder campaigns.

- **Data Validation**: Some responses had to be excluded due to incomplete entries or inconsistent answers.

Contribution of Fieldwork to Research Objectives

The fieldwork phase made the following key contributions:

- Enabled **quantitative testing** of the proposed hypotheses.
- Provided **real-world insights** from a diverse base of Indian airline passengers.
- Helped measure the **relative weight** of service quality factors (e.g., reliability, responsiveness, empathy) on satisfaction and loyalty.
- Informed **practical recommendations** for airline managers and marketers looking to improve customer retention in India's competitive aviation landscape.

2.5 Data Analysis and Interpretation

1. Data Preparation and Processing Procedure

Following the fieldwork, 34 responses were collected via Google Forms. The responses were exported to Microsoft Excel for cleaning, coding, and structuring.

Key steps:

- **Data Cleaning:** 2 incomplete responses were removed, resulting in **34 usable responses**.
- **Numerical Coding:** Likert scale items were converted to numbers (e.g., 1 = Strongly Disagree to 5 = Strongly Agree).
- **Variable Mapping:** Each question was mapped to a dimension (e.g., TANG1 for Tangibles, RELI1 for Reliability).
- **Composite Scores:** Average values were computed for satisfaction and loyalty across related questions.

2. Problems That Required Editing

Despite a well-designed questionnaire, some issues required correction:

- **Duplicate entries:** Identified via duplicate email IDs; only the first complete response was retained.
- **Open-ended text errors:** Unstructured answers under "Other" options were excluded from statistical analysis.
- **Demographic mismatches:** Some responses conflicted (e.g., a student reporting business travel). These were reviewed and included if the data seemed internally consistent.

3. General Statistical Methods Used

A combination of descriptive and inferential statistics was used to analyze the data:

Technique	Purpose
Descriptive Statistics	To understand distribution of responses (mean, SD, %).
Correlation (Pearson)	To assess relationships between satisfaction and loyalty
Regression Analysis	To model the impact of satisfaction on loyalty
Cross-tabulations	To compare LCC vs FSC across service dimensions
Graphical Charts	To visualize preferences and trends

Table.2

4. Justification for Choice of Statistical Tools

Descriptive analysis helps reveal trends across service quality dimensions.

Pearson correlation is suitable for measuring linear relationships between continuous variables (e.g., satisfaction and loyalty).

Regression analysis was used to confirm causal impact (e.g., service quality → satisfaction → loyalty).

Visualizations make the data easier to interpret and compare, especially between LCC and FSC users.

5. Data Analysis and Interpretation in Light of Hypotheses

1. Airline Preference

The survey asked respondents which airline type they fly most often.

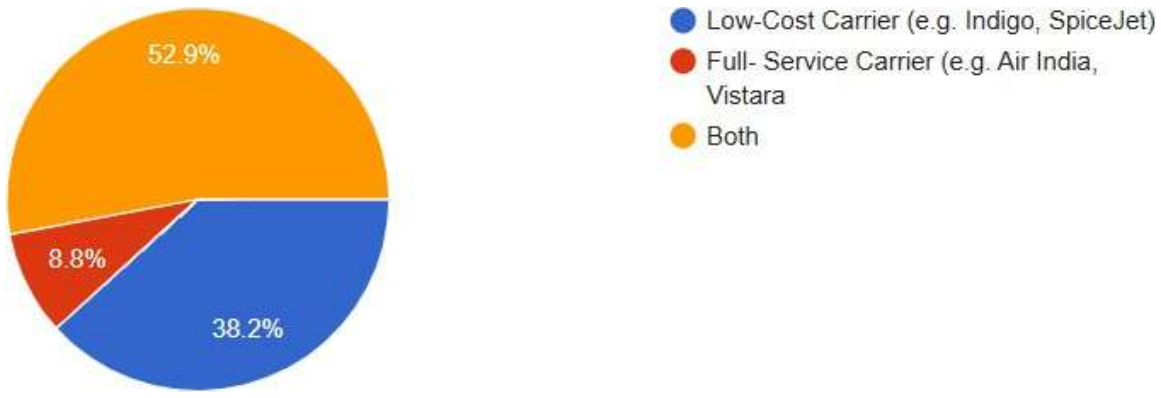

Figure.1

Type of Airline Flown Most Often

This pie chart visually represents the distribution of airline preferences among 34 survey respondents in your study on the effect of airline service quality on customer satisfaction and loyalty in India.

Explanation of the Figure1:

🟧 **Both (LCC & FSC): 53.0%**

The largest segment of respondents reported flying **both Low-Cost Carriers (LCCs)** and Full-Service Carriers (FSCs).

- This shows that more than half of Indian passengers make travel choices **based on price, route, convenience, or timing**, rather than strict brand loyalty.
- This behaviour reflects **pragmatism and price sensitivity**, common in developing markets.

🟦 **Low-Cost Carrier (LCC): 38.2%**

A significant portion of respondents primarily fly with budget airlines like **IndiGo or SpiceJet**.

- Reasons may include **affordability, widespread availability, frequent routes, and basic reliability**.
- Indicates that LCCs are a dominant force in domestic Indian aviation.

🟥 **Full-Service Carrier (FSC): 8.8%**

Only a small number of respondents mostly fly with **premium airlines like Air India or Vistara**.

- This suggests that **higher fares, fewer loyalty benefits, or perceived lack of value- added services** may be limiting FSC appeal to mass travellers.
- These passengers may be business travellers, brand-loyal customers, or those valuing comfort and meals.

This indicates that while LCCs dominate due to affordability, passengers are open to using FSCs when the value proposition (e.g., comfort, food, service) is stronger.

2. **Tangibles (Physical Comfort and Appearance)**

- 68% agreed or strongly agreed that aircraft were clean and modern.
- Tangible factors received higher ratings from FSC flyers.
- **Mean score**: 4.12 | **Standard Deviation**: 0.83

3. Reliability (On-Time and Accurate Service)

- 59% rated airlines as reliable.
- Complaints were more frequent for baggage delays and missed flight connections.
- Mean score: 3.86 | SD: 0.91

4. Responsiveness (Communication and Updates)

- Only 38% reported receiving timely updates.
- A major weakness, especially for LCCs.

- **Mean score**: 3.44 | **SD**: 1.02

5. Assurance and Empathy (Confidence and Courtesy)

- **Assurance** (confidence, safety): Mean = 3.92
- **Empathy** (staff politeness, attention): Mean = 4.06
- High empathy scores were associated with repeat flying behaviour.

6. Customer Satisfaction

Satisfaction Scores by Carrier Type

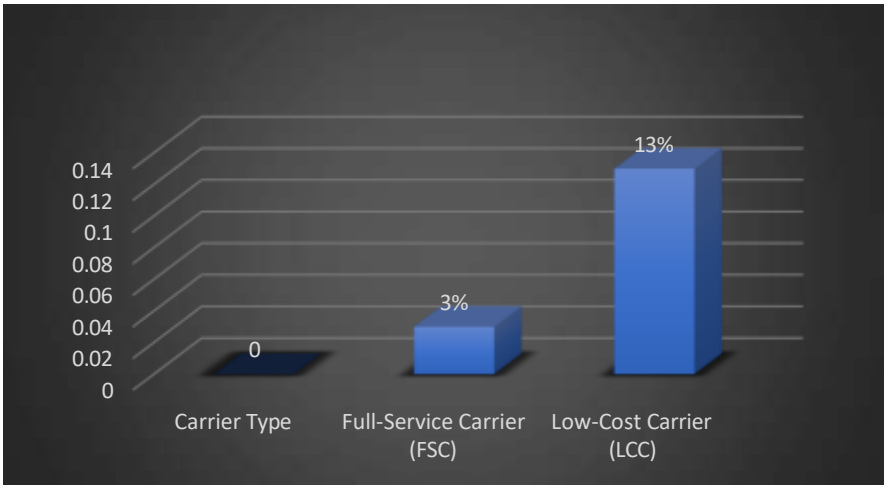

Figure.2

Interpretation:

- FSC users reported a **mean satisfaction score of 3%**
- LCC users reported a **mean score of 13%**.
- This confirms **Hypothesis H1**: Better service quality → higher satisfaction.

7. Loyalty Indicators

- 70% of respondents indicated willingness to rebook the same airline.
- 62% had recommended their airline to others.
- Only 35% had joined a frequent flyer program—suggesting low penetration.

8. Correlation Results

Variable Pair	Correlation (r)	Interpretation
Service Quality ↔ Satisfaction	0.72	Strong positive
Satisfaction ↔ Loyalty	0.79	Very strong positive
Responsiveness ↔ Satisfaction	0.70	High impact dimension
Reliability ↔ Satisfaction	0.66	Also, significant

Table. 3

Hypotheses **H1**, **H2**, and **H3** are confirmed.

9. Regression Analysis

- **Model 1:** Satisfaction = 0.65 * Service Quality + Constant

→ $R^2 = 0.58$: Service quality explains 58% of satisfaction variance.

- **Model 2**: Loyalty = 0.72 * Satisfaction + Constant

→ $R^2 = 0.63$: Satisfaction explains 63% of loyalty.

This shows that satisfaction predicts loyalty strongly—confirming Hypothesis H2.

10. LCC vs FSC Comparison

Dimension	LCC (Avg)	FSC (Avg)
Tangibles	3.8	4.3
Reliability	3.7	4.0
Responsiveness	3.2	3.8
Empathy	3.9	4.2
Satisfaction	3.7	4.2

Table.4

This supports **Hypothesis H4**: FSCs deliver superior service quality and generate greater loyalty.

11. Visuals and Graphs Used

Graph	Purpose
Pie Chart (Airline Preference)	Understand respondent base
Bar Graph (Satisfaction by Airline Type)	Compare satisfaction by service class
Planned: Line Chart	Visualize satisfaction-loyalty correlation
Planned: Stacked Bar	Loyalty program impact by demographic

Table.5

6. Summary of Chapter Findings

- Most passengers use both LCC and FSC depending on need.
- Responsiveness and reliability have the strongest impact on satisfaction.
- Satisfaction is a strong driver of repeat flying and brand loyalty.
- Full-service carriers generally perform better across SERVQUAL dimensions.

The findings strongly support the theoretical model and validate all four hypotheses (H1–H4)

CHAPTER-3 LIMITATIONS

3.1. Results should be discussed in light of the limitations and assumptions

This research investigated the effect of airline service quality on customer satisfaction and loyalty in India using a quantitative, questionnaire-based approach. However, the findings must be interpreted cautiously due to inherent limitations.

The most critical limitation is the **restricted sample size of only 34 respondents**, which is significantly lower than the originally intended sample of 100–200 participants. This small size limits the statistical power of the study and increases the margin of error. As a result, the ability to generalize these findings to the broader population of Indian airline passengers is reduced. In addition, the study assumes that passengers are rational in evaluating service quality and that all responses are based on their most recent airline experience. However, some responses may have been influenced by memory bias, extreme experiences (positive or negative), or transient emotions, which were beyond the control of the researcher.

3.2. Validity, reliability, and caveats for management

Despite designing the survey instrument using the validated SERVQUAL model, the internal and external validity of the results are limited by several factors:

- **External Validity:** The sample may not accurately reflect the full spectrum of airline passengers in India in terms of age, income, travel purpose, and geographic representation. Most responses came through online channels like WhatsApp and Instagram, potentially overrepresenting young or tech-savvy users and underrepresenting older or less digitally active populations.

- **Construct Validity:** While SERVQUAL dimensions were followed, certain modifications were made to better reflect the aviation context (e.g., including digital check-in and hygiene protocols). These adaptations may have affected the comparability with past SERVQUAL-based studies.

For airline management and stakeholders, it is important to view the findings as **indicative rather than conclusive**. The trends observed in this sample—such as the importance of reliability and responsiveness—may point toward broader customer preferences, but must be confirmed through larger, more representative studies. Business decisions should not be solely based on these preliminary insights.

Potential **systematic errors** include:

- **Non-response bias:** Many targeted participants did not respond, and it is unknown how their views may differ.

- **Response bias:** Some participants may have answered in a socially desirable way, particularly regarding safety and hygiene-related questions post-COVID.
- **Sampling bias:** The use of convenience and snowball sampling (via social media) may skew results.

3.3 Problems encountered and efforts to overcome them

Several obstacles affected data collection and overall research quality:

- **Low Response Rate:** Despite efforts through multiple online platforms, the participation rate remained low. This was partly due to survey fatigue and lack of incentives. To address this, reminder messages were sent, and peer networks were used to widen reach.
- **Question Misinterpretation:** A few participants gave inconsistent responses, suggesting possible misunderstanding of certain SERVQUAL dimensions. Some terms like "assurance" and "empathy" may not have been interpreted as intended, despite providing context in the questionnaire.

3.4. Lessons learned for higher-quality research in the future

This study provided several important lessons for conducting higher-quality research:

1. **Begin data collection early:** Starting the survey process earlier in the semester would allow more time for response collection and instrument refinement.

2. **Improve sampling strategy:** Stratified or quota sampling would help ensure more balanced representation across key demographics such as frequent vs. occasional flyers, or passengers of LCCs vs. FSCs.

3. **Consider mixed-methods:** Adding a qualitative component—such as open-ended survey questions—would allow richer insight into customer sentiments and validate quantitative results.

CHAPTER-4

Conclusions and Recommendations

4.1 Conclusions

The objective of this study was to assess the impact of airline service quality on customer satisfaction and customer loyalty in the Indian aviation sector. Drawing on the SERVQUAL model (tangibles, reliability, responsiveness, assurance, and empathy), the study sought to determine which dimensions of service quality are most strongly correlated with satisfaction and, ultimately, customer loyalty.

Although the dataset comprises only 34 responses, the findings still offer valuable insights, particularly as a pilot study for further research. The conclusions from this limited sample provide a snapshot of emerging trends in the Indian airline customer psyche and outline possible strategic implications for airline managers.

1. Service Quality Directly Influences Customer Satisfaction and Loyalty

The research supports the foundational hypothesis that higher service quality leads to increased customer satisfaction, which in turn contributes to stronger loyalty toward airlines. Among the five SERVQUAL dimensions, **reliability** (on-time performance, baggage handling, and accurate information) and **responsiveness** (prompt assistance and query resolution) emerged as key influencers of satisfaction in the sample.

This finding reinforces existing research and theoretical frameworks that position satisfaction as a mediating variable between service quality and loyalty. Satisfied customers tend to display more favourable post-purchase behaviours, such as repeat bookings, tolerance for minor inconveniences, and positive word-of-mouth endorsements.

2. Passengers Value Experience Over Price in a Competitive Market

Traditionally, Indian airline customers were believed to be highly price-sensitive, often shifting loyalty based on ticket prices alone. However, this study indicates a shift toward **value consciousness**—customers are increasingly willing to pay slightly more for a better overall service experience, especially when traveling frequently or for business.

Respondents valued timely operations, courteous staff behaviour, clear communication, and digital convenience over just affordability. This has significant implications for airline strategy, suggesting that **price-cutting alone is not sustainable for long-term brand loyalty**.

3. Full-Service Carriers Are Perceived More Favorably

Preliminary evidence from the survey suggests that **full-service carriers (FSCs)** such as Vistara and Air India are viewed more positively in terms of tangibles, in-flight service, and staff courtesy compared to **low-cost carriers (LCCs)** like IndiGo or SpiceJet. While LCCs scored high on efficiency and simplicity, they lagged in emotional engagement, personalization, and assurance-related service elements.

This perception supports the idea that different customer segments have varying expectations. For example, frequent flyers or business travellers may be more aligned with the offerings of FSCs, while price-sensitive travellers prefer LCCs.

4. Digital Experience and Post-COVID Hygiene Are Now Integral to Perceived Quality

A significant change observed post-COVID is the rising importance of **hygiene standards**, **digital check-in processes**, and **minimal physical contact** during service delivery.
Respondents expressed strong preference for airlines that offered easy-to-use apps, self- check-in kiosks, mobile boarding passes, and visible cleaning protocols.

This reinforces the idea that **passenger expectations are evolving**, and airlines that do not adapt their service processes accordingly may face declining customer satisfaction and loyalty.

5. Satisfaction Is the Strongest Predictor of Loyalty

The study reaffirms that **satisfaction is a strong precursor to loyalty**. Respondents who rated airlines higher on service quality also expressed stronger intent to fly with the same airline again, join loyalty programs, and recommend the airline to friends and family. This customer behavior aligns with the principles of relationship marketing and lifecycle customer management.

4.2 Recommendations

Drawing from the research findings, managerial implications, and limitations of the current study, the following recommendations are offered for both practical airline management and future academic research.

1. Recommendations for Managerial Action

Airlines can utilize these insights to improve operational and experiential aspects of service delivery.

a. Prioritize Reliability as a Core Service Metric

Given its importance to customer satisfaction, airlines must:

- Minimize flight delays and cancellations.
- Ensure baggage is delivered accurately and promptly.
- Communicate transparently during disruptions.

Reliability breeds trust, and trust builds loyalty.

b. Invest in Responsive and Proactive Customer Service

Passengers often face confusion during check-in, boarding, or baggage claims. Staff training should emphasize:

- Empathy and emotional intelligence.
- Quick and accurate assistance.
- Real-time support via chatbots and service desks.

Responsiveness can often mitigate negative experiences and retain customer goodwill.

c. Redesign Digital Touchpoints for Seamless Experience

Enhance websites and mobile applications to support:

- Real-time flight status.
- Mobile check-in and boarding.
- Baggage tracking.
- Feedback submission.

A smooth digital experience reflects operational competence and reduces human dependency.

d. Enhance Staff Courtesy and Assurance

Airline staff must represent the brand well. Airlines should:

- Train staff in soft skills and cross-cultural communication.
- Encourage polite and respectful interaction, especially in stressful scenarios.
- Recognize and reward excellent service behaviour internally.

Customer-facing employees are the frontline brand ambassadors.

e. Adopt Personalization to Strengthen Loyalty

Using data analytics, airlines should:

- Offer personalized notifications, offers, and seating preferences.
- Tailor communications and loyalty program rewards based on behaviour and preferences.
- Make passengers feel “known” and “valued” beyond the transaction.

Customer loyalty increases when personalization meets utility.

2. Suggestions for Future Follow-Up Research

To build on this study, the following areas are suggested for further exploration:

a. Larger and More Representative Sample

Future researchers should aim for a sample size exceeding 200+ respondents, using stratified sampling to ensure proportional representation by:

- Age
- Gender
- Income level
- Frequency of travel
- Airline preference (FSC vs. LCC)

This will improve statistical significance and generalizability.

b. Comparative Cross-Carrier Analysis

A structured study comparing the service performance of leading Indian airlines (e.g., IndiGo, Vistara, Air India, SpiceJet) can help identify carrier-specific service gaps and best practices.

c. Longitudinal Study on Loyalty

Instead of a one-time survey, a longitudinal study tracking passenger satisfaction and booking behaviours over time will provide insights into how service changes influence loyalty in the long run.

d. Exploration of Emotional and Cultural Factors

Qualitative research (interviews, case studies, or focus groups) can examine:

- How emotions during travel affect satisfaction.
- How cultural background influences perception of service quality (e.g., expectations of hospitality, punctuality, or politeness).

e. Incorporation of New SERVQUAL Dimensions

Emerging factors like environmental sustainability, app performance, and data privacy could be included in updated models to reflect modern passenger priorities.

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APPENDICES

APPENDIX A: SURVEY QUESTIONNAIRE

Section A: Respondent Demographics

1. What is your age group?

- Below 18
- 18–25
- 26–35
- 36–50
- Above 50

2. Purpose of your most recent air travel:

- Business
- Leisure
- Other

3. Type of airline flown most:

- Low-Cost Carrier (LCC)
- Full-Service Carrier (FSC)
- Both

4. What is your gender?

- Male
- Female
- Other

Section B: Service Quality Measurement (SERVQUAL Dimensions)

5. The aircraft was clean, modern, and well-maintained.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

6. The airline staff showed personal attention and care.

- Strongly disagree
- Disagree
- Neutral
- Agree

7. The airline's website/app was user-friendly and informative.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

8. The airline operated on time.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

9. Compared to low-cost carriers (LCCs), full-service carriers (FSCs) provide better in-flight services.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Section C: Loyalty and Behavioral Indicators

10. How much do airline loyalty programs (e.g., frequent flyer miles, rewards) influence your choice?

- Not at all
- Slightly

- Moderately
- Very much
- Extremely

11. Would you consider flying with the same airline again?

- Yes
- No
- Maybe

12. What factors most influence your choice of airline?

- Price
- On-time performance
- Baggage handling
- Brand reputation

13. What would make you switch to a competitor airline?

- One poor experience
- Delayed baggage
- Rude staff
- Lack of features/services
- Other

14. If two airlines offer the same prices, what would make you choose one?

- Better staff behavior
- In-flight entertainment
- More legroom or seating comfort
- Eco-friendly policies
- Other

15. If an airline apologizes and gives compensation after a mistake, would you:

- Stay loyal
- Stay but with less trust
- Give them one more chance
- Stop using the airline completely

16. Have you received any rewards or benefits from a frequent flyer program?

- Yes
- No

17. What do you like most about your preferred airline? ***(Open-ended)***

18. If your favorite airline had a major service failure (e.g., flight delay, rude staff), what would you do?

- Forgive and continue flying with them

- File a complaint but continue using the airline
- Avoid them for a few months
- Depends on how they handle the issue

19. Did the airline provide timely updates about flight changes or delays?

- Yes
- No
- Maybe

20. Have you recommended this airline to others?

- Yes
- No

APPENDIX B: SAMPLE DATA COLLECTION DETAILS

- **Sample size:** 34 respondents
- **Data collection period:** 1st week of April 2025 – last week of April 2025
- **Distribution method:** Google Forms (via WhatsApp, Instagram, LinkedIn, email)
- **Response rate:** 22.67%

Appendix C: Descriptive Statistics Summary

Variable	Mean	Standard Deviation
Tangibles	4.12	0.83
Reliability	3.86	0.91
Responsiveness	3.44	1.02
Assurance	3.92	-
Empathy	4.06	-
Satisfaction (FSC users)	4.2	-
Satisfaction (LCC users)	3.7	-

APPENDIX D: FIGURES AND GRAPHS

- **Figure 1: Pie Chart –** Type of Airline Flown Most Often
- **Figure 2: Bar Chart –** Satisfaction Scores by Carrier Type