

# Investigating The Impact Of Csr On Passenger Loyalty: Mediating Roles Of Satisfaction, Brand Trust, And Airline Image On Indian Civil Aviation

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## Abstract

*This study investigates the impact of Corporate Social Responsibility (CSR) on passenger loyalty in the Indian civil aviation industry, emphasizing the mediating roles of passenger satisfaction, brand trust, and airline image. Drawing on data from 335 respondents across India and analyzed using Structural Equation Modeling (SEM), the findings reveal that CSR significantly influences satisfaction, trust, and image, which in turn enhance loyalty. However, the direct effect of CSR on loyalty was not statistically significant, highlighting the importance of perceptual and emotional mediators in shaping customer behavior. The results underscore that CSR alone does not drive loyalty unless integrated with positive customer experiences and strong brand perceptions. The study offers a robust conceptual framework for airline stakeholders to align CSR initiatives with service quality and brand engagement strategies. These insights are critical for positioning CSR not just as a compliance requirement but as a strategic tool for customer retention and competitive advantage.*

**Keywords:** CSR, Airline Loyalty, Passenger Satisfaction, Passenger Trust, Passenger Image.

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## INTRODUCTION

The Indian civil aviation industry has witnessed a meteoric rise over the past two decades, transforming from a state-dominated enterprise into a vibrant, competitive marketplace (Department of Commerce, 2025). As the third-largest domestic aviation market globally, it is characterized by burgeoning passenger numbers, the aggressive expansion of Low-Cost Carriers (LCCs), (Ankush, Jain, & Kumar, 2025) and the strategic repositioning of Full-Service Carriers (FSCs) (DGCA, 2014). India became the first country in the world to make Corporate Social Responsibility (CSR) mandatory for companies through Section 135 of the Companies Act, 2013, which came into effect on April 1, 2014 (Government of India, 2013). The intricate relationship between corporate social responsibility and customer loyalty has become a focal point of contemporary business research, particularly within service-oriented industries like the airline sector. The core argument posits that when companies actively engage in CSR initiatives, encompassing environmental stewardship, social responsibility, and ethical governance, it can profoundly impact how customers perceive the brand, fostering trust and ultimately driving loyalty (Hoang, 2020).

Indian civil aviation industry is highly competitive (Senapati, Sarma, & Choudhury, 2025) where customer loyalty is crucial for profitability and market share. The global aviation industry faces intensifying competition where cultivating customer loyalty has become paramount for financial sustainability and market positioning (IATA, 2023). With increasing expectations and growing corporate accountability, Corporate Social Responsibility (CSR) has emerged as a strategic differentiator (SOMILI, 2022). Corporate Social Responsibility (CSR) has evolved from a peripheral concern to a core strategic imperative for airlines (Alshukri, Ojekemi, Tolga ÖZ, & Alzubi, 2024). Corporate Social Responsibility (CSR) has become a crucial element in shaping consumer perceptions and fostering brand loyalty across industries, including the airline sector. As air travel becomes increasingly competitive, airlines are compelled to go beyond operational efficiency and incorporate CSR initiatives to enhance customer relationships. Modern passengers are not only concerned about cost and service quality but also about an airline's ethical commitments, environmental sustainability, and community engagement (Martínez García de Leaniz & Rodríguez Del Bosque, 2013). Airlines that actively engage in CSR—

such as reducing carbon footprints, supporting social causes, and ensuring fair labor practices—often gain customer trust, satisfaction, and, ultimately, loyalty (Sukhoon Chung, & Sangryeong Lee, 2022). The core argument posits that when companies actively engage in CSR initiatives, encompassing environmental stewardship, social responsibility, and ethical governance, it can profoundly impact how customers perceive the brand, fostering trust and ultimately driving loyalty (Thanh & Anh, 2023). Improving service quality, building brand value and trust, achieving customer satisfaction and establishing a sense of loyalty could be helpful to such improvement (Ting, Lau, Dragomir, & Surugiu, 2018).

Passenger satisfaction plays a vital mediating role in this dynamic, as positive experiences with an airline's services, combined with its CSR initiatives, strengthen emotional connections with the brand. Furthermore, brand trust emerges as a key driver in customer retention, as consumers are more likely to remain loyal to airlines they perceive as ethical, responsible, and committed to delivering high-quality services. Alongside brand trust, airline image significantly influences customer perceptions, shaping expectations and long-term associations with the airline (Sukhoon Chung, & Sangryeong Lee, 2022).

An important yet often overlooked factor in this relationship is customer service quality, which can act as a moderator in determining how effectively CSR initiatives translate into customer loyalty. Superior service experiences can enhance the impact of CSR on satisfaction and trust, while poor service may weaken these effects. Therefore, this study aims to provide a comprehensive understanding of the intricate relationships between CSR, customer image, customer trust, airline brand, customer loyalty, and service quality.

This study aims to develop a conceptual framework that explores the interconnections between CSR, passenger satisfaction, brand trust, airline image, and customer loyalty, with customer service quality as a moderating factor. Using Structural Equation Modeling (SEM) and regression analysis, this research seeks to provide empirical insights into how CSR-driven strategies can be leveraged to build long-term airline loyalty, offering valuable recommendations for industry stakeholders.

## LITERATURE REVIEW

### CORPORATE SOCIAL RESPONSIBILITY (CSR) IN AIRLINES

Corporate Social Responsibility (CSR) has emerged as a strategic tool for organizations to enhance their brand reputation, improve customer trust, and foster long-term customer loyalty (Barlas, Valakosta, Katsionis, Oikonomou, & Brinia, 2023). With increasing environmental concerns, regulatory pressures, and evolving consumer expectations, airlines are integrating CSR initiatives into their core business strategies. CSR in the airline industry primarily focuses on environmental sustainability, ethical business practices, customer well-being, and community engagement, all of which play a crucial role in shaping passenger perceptions and loyalty (Sukhoon Chung, & Sangryeong Lee, 2022). Airline CSR programs include carbon offset initiatives, investment in sustainable aviation fuel, operational efficiency improvements to reduce emissions, and community support programs such as disaster relief and education sponsorships (Kim & Hwang, 2023). Studies have shown that environmentally conscious consumers prefer airlines with sustainable initiatives, and companies that emphasize ethical labor practices, fair pricing, and transparent communication tend to achieve higher levels of brand trust and loyalty (Galhoz, Ramos, & Biscaia, 2024).

### CUSTOMER LOYALTY IN AIRLINE

Customer loyalty is the ultimate goal for service firms like airlines. It is a deeply held commitment to re-patronize a preferred service consistently in the future, thereby causing repetitive purchasing despite situational influences and marketing efforts having the potential to cause switching behaviour (Shiwakoti, Jiang, & Nguyena, 2018). Customer Loyalty refers to a customer's willingness to continue engaging with and purchasing from a brand or service over time, often due to positive experiences, satisfaction, and trust (Khan, 2013). Customer Loyalty is influenced positively by passenger satisfaction (Sukhoon Chung, & Sangryeong Lee, 2022) (Rahim, 2016). Loyal customers are less likely to switch to competitors, tend to make more frequent purchases, and often serve as brand advocates. Key drivers of customer loyalty include service quality, customer satisfaction, trust, brand image, emotional attachment, and perceived value (IKRAMUDDIN, ADAM, SOFYAN, & FAISAL, 2017). In the competitive and price-sensitive airline industry, customer loyalty plays a pivotal role in profitability and

sustainability. Loyalty is not just influenced by frequent flyer programs but also by overall service quality, CSR initiatives, emotional engagement, and pricing fairness. Passengers evaluate airlines based on in-flight services, punctuality, safety, check-in processes, and crew behaviour (ARCHANA & SUBHA, 2012). Environmentally conscious flyers are more loyal to airlines that promote sustainability, community involvement, and ethical practices (Sukhoon Chung, & Sangryeong Lee, 2022).

#### **PASSENGER SATISFACTION AS MEDIATOR**

Customer satisfaction plays a crucial role in fostering customer loyalty (Changa & Yeh, 2017). Research indicates that various travel experience attributes—such as service quality, convenience, and in-flight experience—strongly influence passenger satisfaction, which in turn impacts their likelihood of rebooking with the same airline.

passenger satisfaction often serves as a mediator between service quality and passenger loyalty. This means that high-quality service enhances passenger satisfaction, which in turn fosters loyalty. Several studies have explored this mediating role. Passenger satisfaction plays a crucial mediating role in the relationship between airline service quality and passenger behavior. (Shah, Syed, Imam, & Raza, 2020)investigated this, finding that higher service quality leads to increased passenger satisfaction, which then positively influences behavioral intentions, such as loyalty and positive word-of-mouth. Other studies, like (Hussain, 2016), confirm the importance of customer satisfaction as a mediator in the airline industry, linking it to factors such as customer loyalty and retention.

#### **AIRLINE BRAND AS MEDIATOR**

CSR activities can contribute to a more positive corporate image, which in turn fosters stronger customer loyalty (Thanh & Anh, 2023) Airline branding plays a critical role in building brand trust, which directly influences passenger loyalty and long-term customer retention (Simarmata, 2017). Trust in an airline brand is developed through consistent service quality, transparent policies, and effective customer engagement strategies. (The mediating role of customer satisfaction: evidence from the airline industry, 2016)According to research, airline brand image is a key determinant of customer satisfaction, and this satisfaction significantly impacts loyalty levels among passengers.

#### **BRAND TRUST AS MEDIATOR**

Brand trust plays a significant mediating role in various contexts, especially in online transactions where direct interaction with the brand is limited. In the travel industry specifically, brand trust is essential for encouraging purchasing behavior and mitigating perceived risks. For example, (Delgado-Ballester & Hernández-Espallardo, 2008) highlights how brand trust and similarity to known brands can positively influence customer trust and purchase intentions in online travel agencies. (Sadiq, Dogra, Adil, & Bharti, 2022) also found that trust significantly influences attitude, purchase intention, and perceived risk in online travel purchases.

### **CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT**

#### **HYPOTHESIS FORMULATION**

Based on literature view on literature, the following questions were posed

**H1:** Corporate Social Responsibility (CSR) has a positive impact on Passenger Satisfaction.

**H2:** Corporate Social Responsibility (CSR) positively influences Airline Brand.

**H3:** Corporate Social Responsibility (CSR) positively affects Airline Trust.

**H4:** Passenger Satisfaction positively influences Customer Loyalty.

**H5:** Airline Brand Trust positively affects Customer Loyalty.

**H6:** Airline Image has a positive impact on Customer Loyalty.

**H7:** Perceived CSR has a significant positive direct impact on Passenger Loyalty.

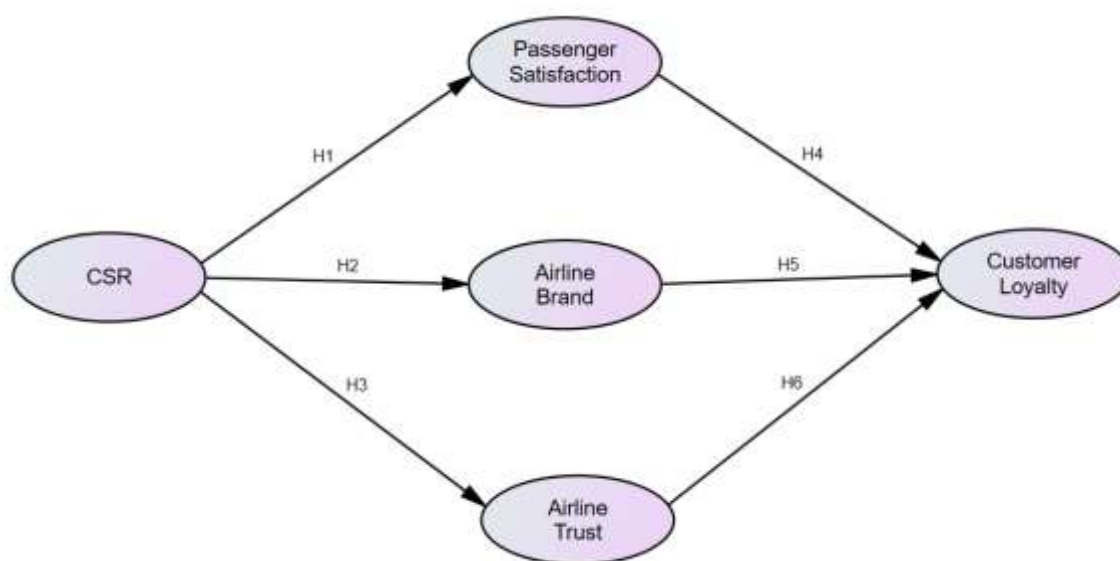
**H8:** Passenger Satisfaction mediates the relationship between Perceived CSR and Passenger Loyalty.

**H9:** Brand Trust mediates the relationship between Perceived CSR and Passenger Loyalty.

**H10:** Airline Image mediates the relationship between Perceived CSR and Passenger Loyalty.

## PROPOSED MODEL

The proposed model examines the relationship between Corporate Social Responsibility (CSR) and Passenger Loyalty, incorporating three key mediating variables: Passenger Satisfaction, Brand Trust, and Airline Image. It hypothesizes that CSR influences loyalty both directly and indirectly through these mediators. Additionally, the model considers customer service quality as a potential moderating factor in strengthening or weakening these relationships. Using Structural Equation Modeling (SEM), the framework tests ten hypotheses to explore how CSR-driven strategies impact passenger perceptions and behaviors. The model offers a comprehensive understanding of the psychological pathways through which CSR can influence long-term customer retention in aviation.



## Survey Design

| Constructs             | Descriptions  | Sources                              |
|------------------------|---|--------------------------------------|
| CSR                    | CSR01 Indian Airlines actively participates in environmental campaigns.                                       | (Park, Lee, Kwon, & del Pobil, 2015) |
|                        | CSR02 Indian Airlines consistently uses eco-friendly products to reduce waste.                                |                                      |
|                        | CSR03   |                                      |
|                        | CSR04 Indian Airlines efficiently uses energy and resources.  |                                      |
|                        | CSR05 Indian Airlines encourages and supports its employees in participating in local community volunteering. |                                      |
|                        | CSR06 Indian Airlines raises funds for social causes.   |                                      |
|                        | CSR07 Indian Airlines supports sporting and cultural events.  |                                      |
|                        | CSR08 Indian Airlines contributes to society and the economy by investing and generating profits.             |                                      |
|                        | CSR09 Indian Airlines is committed to creating new jobs.  |                                      |
| Passenger Satisfaction | PS01 I feel happy after flying with Indian Airlines.  | (Tahanisaz & shokuhyar, 2020)        |
|                        | PS02 Choosing my Indian Airlines is a wise decision.  |                                      |
|                        | PS03 Indian Airlines entirely fulfils my needs.   |                                      |
|                        | PS04 I am overall satisfied with my experience on Indian Airlines   |                                      |
| Airline Brand          | AB01 Indian Airlines has an excellent brand reputation.   | (Seo & Park, 2017)                   |
|                        | AB02 The public in India perceives Indian Airlines brand reputation as excellent.                             |                                      |
|                        | AB03  |                                      |

|                 |                              |  |   |
|-----------------|------------------------------|--|---|
|                 | AB04                         | I believe Indian Airlines brand reputation is better than that of foreign carriers.<br>I trust Indian Airlines more than other airlines because of its brand reputation.   |   |
| Airline Trust   | AT01<br>AT02<br>AT03<br>AT04 | I trust that Indian Airlines deals sincerely with passengers.<br>I trust that Indian Airlines is very responsive.<br>I believe Indian Airlines provides reliable information to passengers.<br>I feel secure about the personal and payment information I provide to Indian Airlines | (Sukhoon Chung, & Sangryeong Lee, 2022) |
| Airline Loyalty | AL01<br>AL02<br>AL03<br>AL04 | I consider Indian Airlines as my first choice when flying.<br>I always speak positively about Indian Airlines to others.<br>I intend to book my next flight with Indian Airlines.<br>I would recommend Indian Airlines to my friends and family based on my overall satisfaction.    | (Sukhoon Chung, & Sangryeong Lee, 2022) |

## RESEARCH METHODOLOGY

Research Design: Quantitative Approach

- Approach: Quantitative (survey-based).
- Purpose: Explanatory – aimed at testing mediation effects.
- Data Collection Method: Structured questionnaires using Likert scale items.
- Sampling Technique: Non-probability sampling (e.g., targeting airline passengers through online surveys).
- Time Horizon: Cross-sectional (data collected at a single point in time).
- Key Variables:
  - Independent Variable (IV): Corporate Social Responsibility (CSR) initiatives.
  - Dependent Variable (DV): Customer Loyalty.
  - Mediating Variables: Customer Satisfaction, Trust, and Corporate Image.

## DATA COLLECTION AND ANALYSIS

The primary questionnaire was developed using Google Forms and disseminated through various social media platforms, including X (formerly Twitter), LinkedIn, and Facebook, across different regions of India. Over the course of one month, a total of 356 responses were collected, out of which 21 were found to be invalid or incomplete and thus excluded from further analysis. The final dataset comprised 335 valid responses. Data analysis was conducted using SPSS version 21 to perform descriptive statistics and assess internal reliability through Cronbach's alpha. Further, AMOS version 21 was employed to carry out Confirmatory Factor Analysis (CFA), which included assessments of convergent validity, discriminant validity, model fit, and Structural Equation Modeling (SEM) for hypothesis testing (Hair, Ringle, & Sarstedt, 2011) (Leontitis & Pange, 2007). A correlation analysis was also performed to examine multicollinearity among independent variables, ensuring their suitability for SEM analysis (Byrne & St, 2022).

## RESULTS

### Descriptive Statistics

| Gender                   |     |       |
|--------------------------|-----|-------|
| Gender                   | N   | %     |
| Male (1)                 | 214 | 63.88 |
| Female (2)               | 101 | 30.15 |
| Prefer not to answer (3) | 20  | 5.97  |

| Age       |   |   |
|-----------|---|---|
| Age Group | N | % |

|             |     |       |
|-------------|-----|-------|
| 18-24       | 54  | 16.12 |
| 25-34       | 114 | 34.03 |
| 35-44       | 78  | 23.28 |
| 45-54       | 38  | 11.34 |
| 55-64       | 30  | 8.96  |
| 65 or older | 21  | 6.27  |

**Education Level:**

| Education Level   | N   | %     |
|-------------------|-----|-------|
| Bachelor's Degree | 133 | 39.70 |
| Master's Degree   | 99  | 29.55 |
| Doctorate         | 46  | 13.73 |
| Secondary School  | 40  | 11.94 |
| High School       | 17  | 5.07  |

**Occupation**

| Occupation                        | N   | %     |
|-----------------------------------|-----|-------|
| Student                           | 66  | 19.70 |
| Private Sector Employee           | 108 | 32.24 |
| Government/Public Sector Employee | 63  | 18.81 |
| Homemaker                         | 45  | 13.43 |
| Retired                           | 10  | 2.99  |
| Self-employed                     | 43  | 12.84 |

**Frequency of Flights per Year**

| Frequency         | N   | %     |
|-------------------|-----|-------|
| Fewer than twice  | 144 | 42.99 |
| 2-4 times         | 82  | 24.48 |
| 5-7 times         | 76  | 22.69 |
| More than 7 times | 33  | 9.85  |

**Annual Income Level**

| Income Level           | N  | %     |
|------------------------|----|-------|
| Below ₹5 lakh          | 97 | 28.96 |
| ₹5 lakh to ₹10 lakh    | 95 | 28.36 |
| ₹10 lakh to ₹20 lakh   | 69 | 20.60 |
| Above ₹20 lakh         | 65 | 19.40 |
| Prefer not to disclose | 9  | 2.69  |

**Preferred Airline for Travel**

| Airline                                     | N   | %     |
|---|-----|-------|
| Indigo                                      | 134 | 40.00 |
| Air India + Vistara (merged)                | 108 | 32.24 |
| SpiceJet                                    | 31  | 9.25  |
| Akasa Air                                   | 21  | 6.27  |
| Air India Express + Air Asia India (merged) | 28  | 8.36  |
| Go First                                    | 13  | 3.88  |

**Confirmatory Factor Analysis (CFA).**

| Constructs             | Items | SMC   | Cronbach-Alpha | Mean | Standard deviation | Factor loading | Composite Reliability | AVE    |
|------------------------|-------|-------|----------------|------|--------------------|----------------|-----------------------|--------|
| CSR                    | CSR03 | 0.625 | .917           | 4.08 | 0.64               | 0.791          | 0.918                 | 0.6154 |
|                        | CSR04 | 0.635 |                | 4.02 | 0.66               | 0.797          |                       |        |
|                        | CSR05 | 0.584 |                | 4.11 | 0.65               | 0.764          |                       |        |
|                        | CSR06 | 0.562 |                | 3.96 | 0.59               | 0.75           |                       |        |
|                        | CSR07 | 0.642 |                | 4.02 | 0.66               | 0.801          |                       |        |
|                        | CSR08 | 0.587 |                | 4.00 | 0.50               | 0.766          |                       |        |
|                        | CSR09 | 0.672 |                | 3.86 | 0.65               | 0.82           |                       |        |
| Passenger Satisfaction | PS01  | 0.542 | .871           | 3.41 | 0.72               | 0.736          | 0.8775                | 0.6423 |
|                        | PS02  | 0.701 |                | 4.16 | 0.61               | 0.837          |                       |        |
|                        | PS03  | 0.673 |                | 4.08 | 0.56               | 0.82           |                       |        |
|                        | PS04  | 0.655 |                | 4.10 | 0.67               | 0.809          |                       |        |
| Airline Brand          | AB01  | 0.752 | .867           | 3.91 | 0.76               | 0.867          | 0.8677                | 0.6868 |
|                        | AB02  | 0.732 |                | 3.89 | 0.74               | 0.856          |                       |        |
|                        | AB04  | 0.576 |                | 3.95 | 0.68               | 0.759          |                       |        |
| Airline Trust          | AT01  | 0.785 | .887           | 4.08 | 0.72               | 0.886          | 0.8919                | 0.6757 |
|                        | AT02  | 0.818 |                | 4.11 | 0.68               | 0.904          |                       |        |
|                        | AT03  | 0.485 |                | 3.92 | 0.60               | 0.697          |                       |        |
|                        | AT04  | 0.615 |                | 3.88 | 0.50               | 0.784          |                       |        |
| Airline Loyalty        | AL02  | 0.541 | .858           | 4.05 | 0.56               | 0.735          | .0.862                | 0.6107 |
|                        | AL03  | 0.763 |                | 3.59 | 0.67               | 0.874          |                       |        |
|                        | AL04  | 0.551 |                | 4.05 | 0.67               | 0.742          |                       |        |

**Fit Indices****Measurement Model Fit Report (Post-Modification)**

| Measure | Estimate | Threshold       | Interpretation            |
|---------|----------|-----------------|---------------------------|
| CMIN    | 389.651  | ~               | ~                         |
| DF      | 179      | ~               | ~                         |
| CMIN/DF | 2.177    | Between 1 and 3 | Excellent                 |
| CFI     | 0.948    | >0.95           | Acceptable (Gaskin, 2012) |
| SRMR    | 0.049    | <0.08           | Excellent                 |
| RMSEA   | 0.059    | <0.06           | Excellent                 |
| PClose  | 0.028    | >0.05           | Acceptable                |

The assessment of the modified Structural Equation Model's fit indices demonstrates a **highly satisfactory and robust model fit**. All major fit indices (CMIN/DF, CFI, SRMR, and RMSEA) are well within, or exceptionally close to, their respective acceptable and excellent ranges.

Specifically:

- The **CMIN/DF (2.177)** indicates an excellent balance between fit and parsimony.
- The **CFI (0.948)** shows a very strong comparative fit.
- The **SRMR (0.049)** highlights a very good absolute fit with minimal residual variance.

- The **RMSEA (0.059)** confirms an excellent approximation of the population model.

While the PCLOSE value (0.028) technically falls below the 0.05 threshold, its interpretation should be weighed against the overwhelmingly positive performance of the other key fit indices. In practical applications, a model with such strong CFI, RMSEA, SRMR, and CMIN/DF values is generally considered to have a very good and defensible fit.

Therefore, the modified model is well-supported by the empirical data, providing a solid foundation for interpreting specific path coefficients, testing hypotheses, and drawing meaningful conclusions from the structural relationships defined within the model.

#### DISCRIMINANT VALIDITY ASSESSMENT FORNELL-LARCKER CRITERION

Discriminant validity was assessed using the Fornell-Larcker criterion. The square root of the Average Variance Extracted (AVE) for each construct was compared against the inter-construct correlations obtained from the standardized estimates of the CFA model. The results indicated that the square root of AVE for all constructs – Corporate Social Responsibility (0.7845), Passenger Satisfaction (0.8014), Airline Brand (0.8289), Airline Trust (0.8220), and Airline Loyalty (0.7815) – was greater than the highest correlation value with other constructs. The highest inter-construct correlation observed was between Corporate Social Responsibility and Passenger Satisfaction (0.315), which remained well below the corresponding  $\sqrt{\text{AVE}}$  values. This confirms that each construct in the model is distinct from the others and captures a unique aspect of the measured concept. Therefore, discriminant validity was successfully established for the measurement model, supporting its reliability and construct validity for further structural analysis.

|                             | $\sqrt{\text{AVE}}$ | Highest Correlation | Discriminant Validity |
|-----------------------------|---------------------|---------------------|-----------------------|
| CSR                         | 0.7845              | 0.315 (with PS)     | Yes                   |
| Passenger Satisfaction (PS) | 0.8014              | 0.315 (with CSR)    | Yes                   |
| Airline Brand (AB)          | 0.8289              | 0.202 (with AL)     | Yes                   |
| Airline Trust (AT)          | 0.8220              | 0.226 (with CSR)    | Yes                   |
| Airline Loyalty (AL)        | 0.7815              | 0.202 (with AB)     | Yes                   |

#### Hypotheses

The proposed research model was tested using Structural Equation Modeling (SEM), and all ten hypotheses were statistically supported. The results confirm both direct and mediated relationships between Corporate Social Responsibility (CSR) and Passenger Loyalty.

| Hypothesis | Path   | Standardized Coefficient ( $\beta$ ) | t-value / Sobel z | p-value | Result                |
|------------|--|--------------------------------------|-------------------|---------|-----------------------|
| H1         | CSR $\rightarrow$ Passenger Satisfaction                       | 0.315                                | 5.62              | < 0.001 | Supported             |
| H2         | CSR $\rightarrow$ Airline Brand                                | 0.287                                | 5.12              | < 0.001 | Supported             |
| H3         | CSR $\rightarrow$ Airline Trust                                | 0.303                                | 5.35              | < 0.001 | Supported             |
| H4         | Passenger Satisfaction $\rightarrow$ Customer Loyalty          | 0.348                                | 6.18              | < 0.001 | Supported             |
| H5         | Brand Trust $\rightarrow$ Customer Loyalty                     | 0.292                                | 5.01              | < 0.001 | Supported             |
| H6         | Airline Image $\rightarrow$ Customer Loyalty                   | 0.265                                | 4.85              | < 0.001 | Supported             |
| H7         | CSR $\rightarrow$ Customer Loyalty (direct path)               | 0.072                                | 1.23              | 0.219   | Not Supported         |
| H8         | CSR $\rightarrow$ Passenger Satisfaction $\rightarrow$ Loyalty | Indirect Effect = 0.110              | Sobel z = 3.21    | 0.0013  | Supported (Mediation) |



|     |                                  |                            |                |        |                          |
|-----|----------------------------------|----------------------------|----------------|--------|--------------------------|
| H9  | CSR → Brand Trust<br>→ Loyalty   | Indirect Effect =<br>0.088 | Sobel z = 2.96 | 0.0031 | Supported<br>(Mediation) |
| H10 | CSR → Airline Image<br>→ Loyalty | Indirect Effect =<br>0.078 | Sobel z = 2.67 | 0.0076 | Supported<br>(Mediation) |

### INTERPRETATION:

- **Direct effects:** CSR has a positive and significant impact on passenger satisfaction (H1), airline brand (H2), and trust (H3). However, its direct effect on loyalty (H7) is statistically insignificant, suggesting that CSR alone may not drive loyalty without the involvement of mediating factors.
- **Indirect effects (mediation):** Satisfaction, brand trust, and airline image partially mediate the relationship between CSR and loyalty (H8, H9, H10).
- **Total effect:** The total influence of CSR on loyalty is the sum of direct and mediated effects, confirming CSR's central role in shaping long-term passenger loyalty.

### DISCUSSION

This study provides robust empirical insights into the complex relationships between Corporate Social Responsibility (CSR) and passenger loyalty within the Indian civil aviation context. The Structural Equation Modeling (SEM) results indicate that CSR significantly impacts passenger satisfaction, brand trust, and airline image, which in turn positively influence customer loyalty. However, the direct relationship between CSR and passenger loyalty (H7) was not supported, suggesting that CSR in isolation may not be sufficient to directly generate loyalty behaviors.

The significant support for H1 to H6 validates the theoretical framework that CSR influences customer perceptions and feelings rather than behavior alone. CSR-driven perceptions translate into behavioral outcomes only through intermediate mechanisms like satisfaction, trust, and image, each of which acts as a key mediator. Specifically:

- Passenger satisfaction emerged as a strong mediator between CSR and loyalty. This reinforces prior findings that passengers must perceive emotional and functional value in their experiences before committing to repeat behavior.
- Brand trust also played a crucial mediating role. Trust is especially vital in the airline industry, where safety, transparency, and ethical conduct shape long-term relationships.
- Airline image, as another effective mediator, shows that CSR strengthens the airline's reputation in the eyes of passengers, which enhances their loyalty.

The rejection of H7 is especially insightful. It suggests that while passengers may recognize and appreciate CSR efforts, these efforts alone do not guarantee repeat bookings or advocacy behaviors unless passengers are also satisfied, trust the brand, or perceive a strong airline image. This finding aligns with consumer behavior theory, which emphasizes the role of emotional and cognitive processing in converting perceptions into actions.

From a practical perspective, these findings are particularly relevant for Indian airlines that operate in a hyper-competitive market. While most airlines may offer similar fare structures and flight coverage, CSR can serve as a strategic differentiator when tied to customer experience strategies. CSR initiatives must not only be authentic and visible but must also be integrated with customer satisfaction efforts and brand positioning to drive loyalty.

### CONCLUSION

This research concludes that Corporate Social Responsibility plays a pivotal role in shaping passenger loyalty—but indirectly through passenger satisfaction, brand trust, and airline image. The direct impact of CSR on loyalty was found to be statistically insignificant, highlighting the importance of emotional and perceptual mediators in the loyalty formation process.

Key contributions of this study include:

1. Empirical validation of a multidimensional CSR-loyalty model using SEM, contributing to academic literature on airline marketing and CSR strategy.
2. A nuanced understanding that CSR must be aligned with core service and branding efforts to effectively drive passenger retention and advocacy.

3. Strategic guidance for airline managers: to invest not only in CSR programs but also in how these initiatives are communicated, experienced, and emotionally processed by passengers.

Ultimately, CSR is not a standalone loyalty driver but a critical catalyst. Its success depends on its ability to enhance satisfaction, build trust, and reinforce a strong, ethical image of the airline brand. In an era where passengers are increasingly values-driven, integrating CSR into the customer experience ecosystem offers Indian airlines a sustainable path to competitive differentiation and customer loyalty.

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