IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Digital Transformation Of Indian Airlines

Name:Pranesh Balaji P.V, Guide Name: Mr Rama Subramaniam

1. II MBA – Aviation Management, School of Management, Hindustan Institute of Technology & Science, Area, Chennai –603103 , Tamil Nadu, India.

2. Research Guide – Mr Rama Subramaniam, School of Management, Hindustan Institute of Technology & Science, Padur, Chennai – 603 103, Tamil Nadu, India.

ABSTRACT

In the aviation industry, digital transformation has become a strategic necessity that is changing consumer engagement, operational procedures, and overall competitiveness. Artificial intelligence, automation, digital payment systems, online booking platforms, digital check-in facilities, and data analytics have all transformed passenger services and operational efficiency in the context of Indian airlines. This study examines how passengers see these digital initiatives, emphasising how they improve customer experience, streamline operations, cut costs, and boost global competitiveness. The study offers insights into the acceptance, efficacy, and inclusivity of digital transformation across various demographic groups using a quantitative research approach with 200 airline passengers. The results show that digital initiatives in Indian airlines are highly valued, with favourable results for both strategic positioning and service quality. The study emphasises how crucial it is to keep funding digital technology in order to maintain customer satisfaction, efficiency, and innovation in the quickly changing Indian aviation sector.

Keywords: Artificial Intelligence, Data Analytics, Digital Payment Systems, Online Booking, Digital Transformation, Indian Airlines, Customer Experience, Operational Efficiency, and Aviation Competitiveness

INTRODUCTION

Digital technologies have emerged as a crucial driver of operational efficiency, service innovation, and competitive advantage in the aviation sector, which has experienced a substantial transition in recent years. Airlines in India have been forced to implement cutting-edge digital solutions like artificial intelligence (AI), automation, data analytics, digital payment systems, online booking platforms, and contactless airport services due to the country's rapidly increasing demand for air travel, increased competition, and changing passenger expectations. Through quicker, more individualised, and safer service delivery, these technologies seek to improve consumer satisfaction in addition to streamlining airline operations and cutting expenses. The strategic significance of digital transformation in the aviation industry is further highlighted by government-led programs like Digi Yatra and rising investments by significant Indian carriers. Even though the implementation of digital technology has accelerated, empirical research that methodically investigates how passengers view these digital

initiatives and assesses their effects on customer experience, operational effectiveness, and competitiveness is still needed. By quantitatively analysing how Indian airline customers see digital transformation projects, this study fills this vacuum and offers insights into the efficacy and inclusivity of digitalisation activities within the Indian airline sector.

OBJECTIVES

- To investigate how various demographic categories of travellers see digital transformation projects in Indian airlines, such as AI-enabled customer service, digital payment systems, digital check-in facilities, data analytics, and social media platforms.
- Using statistical methods like descriptive analysis, ANOVA, Chi-square testing, and correlation analysis, the impact of digital transformation on customer experience, operational efficiency, cost reduction, and competitiveness of Indian airlines will be examined.
- To determine whether passengers' opinions of the digital technologies used by Indian airlines are strongly impacted by demographic criteria, including age, education, income, and occupation, in order to gauge how inclusive and widely accepted digital transformation is in the aviation industry.

REVIEW OF LITERATURE

In the airline sector, digital transformation has become a strategic necessity, radically altering consumer satisfaction, operational effectiveness, and competitive posture. Vogelsang (2010) highlighted digitalization as a catalyst for organizational change in service sectors in his early research. While Lampathaki et al. (2019) showed how digital infrastructures, automation, and data integration enhance service delivery and lower operating costs, Yoon and Yoon (2006) emphasised the cost and efficiency advantages of online ticketing systems in the context of airlines. Tan and Masood (2021) expanded this viewpoint by looking at Industry 4.0 technologies in aviation, pointing out that automated airport operations, contactless systems, and the Internet of Things have become essential components of airline and airport digital ecosystems. Together, these examples demonstrate that digital transformation is a multifaceted process that involves organizational change, strategy, and technology.

Recent literature has further investigated the performance outcomes and structured frameworks of digital transformation in airlines. The digital transformation maturity model for airlines, as proposed by Kıyıklık, Kuşakcı, and Mbowe (2022), prioritizes strategy alignment, technological readiness, and customer-centric processes. Similarly, Kim and Cho (2025) discovered that digital transformation has a positive impact on operational performance, service innovation, and customer satisfaction through a comprehensive review of aviation studies. According to Yıldız and Mazıoğlu (2025), the relationship between digital transformation and innovativeness in airline companies is substantially mediated by agility and openness to change, which underscores the importance of organizational factors. Mirthipati (2024) supported the customer-centric dimension by demonstrating that digital passenger services, including self-service platforms and mobile applications, improve overall satisfaction and loyalty.

Numerous studies that concentrate on the Indian aviation industry demonstrate the quick adoption of digital technology, which is fueled by competition, legislative backing, and changing passenger expectations. According to Khan and Chauhan (2025), Indian airlines are using AI, automation, and real-time analytics more frequently to enhance operational effectiveness and decision-making. Kunju (2025) highlighted how AI-driven applications like dynamic pricing, predictive maintenance, and customized services might improve airline operations in India. According to Seal, Yadav, and Konar (2025), government-led programs like Digi Yatra show how biometric and digital identity systems expedite passenger processing and enhance the travel experience. Although there is an obvious research

gap, industry studies from IBEF (2025) reveal that Indian airlines, such as Air India and IndiGo, are investing in cloud computing, data analytics, and digital platforms.

RESEARCH METHODOLOGY

The study uses a quantitative research design to investigate how digital transformation affects Indian airlines' performance and customer experience. A systematic questionnaire was used to gather primary data from 200 respondents, comprising airline passengers from a variety of demographic backgrounds, including age, occupation, income level, and educational background. Key aspects of digital transformation, such as AI-enabled customer service, digital payment security, online booking systems, digital check-in facilities, data analytics, social media usage, operational efficiency, cost reduction, and overall competitiveness of Indian airlines, were measured using a five-point Likert scale in the questionnaire. In order to ensure sufficient representation across demographic categories, convenience sampling was employed to collect responses. Descriptive statistics were used to understand overall perception levels. One-Way ANOVA was used to find differences in perceptions between educational and income groups. Chi-square tests were used to look at relationships between demographic variables and perceptions of digital technologies, and Pearson correlation analysis was used to evaluate relationships among important digital transformation variables. A thorough insight into how digital transformation projects are viewed and their role in improving efficiency, customer experience, and competitiveness in the Indian aviation sector is provided by the results, which were evaluated at a 5% level of significance.

DATA ANALYSIS

ANOVA

ANOVA on Educational Qualification and Perception of AI-Enabled Customer Service Responsiveness in Indian Airlines

Null Hypothesis (H_0): There is no significant difference in the perception of customer service responsiveness enhanced by the use of artificial intelligence (AI) and chatbots among respondents with different educational qualifications.

Alternative Hypothesis (H_1): There is a significant difference in the perception of customer service responsiveness enhanced by the use of artificial intelligence (AI) and chatbots among respondents with different educational qualifications.

Descriptives								
Use of artificial intelligence (AI) and chatbots by Indian airlines enhances customer service responsiveness.								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
High school	46	3.87	1.067	.157	3.55	4.19	1	5
Bachelor's degree	57	3.58	1.133	.150	3.28	3.88	1	5
Master's degree	46	3.93	1.020	.150	3.63	4.24	1	5
Doctorate	51	3.73	1.150	.161	3.40	4.05	1	5
Total	200	3.77	1.098	.078	3.61	3.92	1	5

ANOVA					
Use of artificial intelligence (AI) and chatbots by Indian airlines enhances customer service responsiveness.					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.882	3	1.294	1.074	.361
Within Groups	236.073	196	1.204		
Total	239.955	199			

Interpretation: The one-way ANOVA results indicate that there is no statistically significant difference in perceptions across educational qualification groups regarding the role of AI and chatbots in enhancing customer service responsiveness in Indian airlines ($F = 1.074$, $p = 0.361 > 0.05$). Hence, the null hypothesis is accepted. However, the descriptive statistics reveal consistently high mean scores across all education levels (overall mean = 3.77), indicating a generally positive perception among respondents, irrespective of their educational background. This suggests that the adoption of AI and chatbots by Indian airlines is widely perceived as improving customer service responsiveness, reflecting broad acceptance and confidence in AI-driven service solutions across diverse educational groups.

One-Way ANOVA on the Perception of AI-Enabled Customer Service Responsiveness and Digital Payment Security among Indian Airline Passengers across Educational and Income Groups

Null Hypothesis (H_0): There is no significant difference in passengers' perceptions across different educational levels regarding the role of artificial intelligence (AI) and chatbots in enhancing customer service responsiveness, and no significant difference across income groups regarding the security and reliability of digital payment systems adopted by Indian airlines.

Alternative Hypothesis (H_1): There is a significant difference in passengers' perceptions across different educational levels regarding the role of artificial intelligence (AI) and chatbots in enhancing customer service responsiveness, and a substantial difference across income groups regarding the security and reliability of digital payment systems adopted by Indian airlines.

Descriptives								
Digital payment systems adopted by Indian airlines are secure and reliable.								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Below Rs. 20,000	56	3.95	1.069	.143	3.66	4.23	1	5
Rs. 20,000 – Rs. 50,000	44	3.68	1.095	.165	3.35	4.01	1	5
Rs. 50,000 – Rs. 100,000	47	3.94	.919	.134	3.67	4.21	2	5
Above Rs. 100,000	53	3.85	1.008	.138	3.57	4.13	1	5
Total	200	3.86	1.023	.072	3.72	4.00	1	5

ANOVA					
Digital payment systems adopted by Indian airlines are secure and reliable.					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.094	3	.698	.664	.575
Within Groups	205.986	196	1.051		
Total	208.080	199			

Interpretation: The One-Way ANOVA results indicate no statistically significant differences in perceptions across educational levels for AI and chatbot-enabled customer service responsiveness ($F = 1.074$, $p = 0.361$) and across income groups for the security and reliability of digital payment systems ($F = 0.664$, $p = 0.575$). Since the significance values are greater than 0.05, the null hypotheses are accepted for both analyses. However, the overall mean scores for both variables are relatively high (AI responsiveness: Mean = 3.77; digital payment security: Mean = 3.86), indicating a generally positive perception among passengers, irrespective of their educational qualification or income level. This suggests that the adoption of AI, chatbots, and secure digital payment systems by Indian airlines is widely appreciated and perceived as effective and reliable across diverse customer segments, reflecting successful and inclusive digital transformation in the Indian aviation sector.

CHI-SQUARE TEST

Association between Age Group of Respondents and Perception of Digital Technologies Improving Customer Experience in Indian Airlines

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Digital technologies have significantly improved the overall customer experience in Indian airlines and the age group of the Respondents.	200	100.0%	0	0.0%	200	100.0%

Null Hypothesis (H_0): There is no significant association between the age group of respondents and their perception that digital technologies have significantly improved the overall customer experience in Indian airlines.

Alternative Hypothesis (H_1): There is a significant association between the age group of respondents and their perception that digital technologies have significantly improved the overall customer experience in Indian airlines.

Digital technologies have significantly improved the overall customer experience in Indian airlines and the age group of the Respondents. Crosstabulation							
		Age group of the Respondents.					Total
		18-24	25-34	35-44	45-54	55 and above	
Digital technologies have significantly improved the overall customer experience in Indian airlines.	Strongly Disagree	3	0	3	3	0	9
	Disagree	1	1	5	5	4	16
	Neutral	12	4	5	9	5	35
	Agree	17	16	20	13	17	83
	Strongly Agree	10	9	17	10	11	57
Total		43	30	50	40	37	200

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.497[a]	16	.354
Likelihood Ratio	20.845	16	.185
Linear-by-Linear Association	.001	1	.976
N of Valid Cases	200		
a. 10 cells (40.0%) have expected count less than 5. The minimum expected count is 1.35.			

Interpretation: The Chi-square test results show that the Pearson Chi-square value is 17.497 with 16 degrees of freedom and a significance value of 0.354, which is greater than the 0.05 level of significance. Hence, the null hypothesis is accepted, indicating that there is no statistically significant association between the age group of respondents and their perception of the impact of digital technologies on customer experience in Indian airlines. This implies that respondents across all age groups largely share a similar and positive perception regarding the role of digital technologies. The crosstabulation further supports this finding, as a majority of respondents in every age category fall under the “Agree” and “Strongly Agree” responses, suggesting that digital initiatives in Indian airlines are widely appreciated and have positively enhanced customer experience, irrespective of age differences.

Association between Demographic Factors and Perception of Digital Technologies in Indian Airlines

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Online booking systems and mobile apps of Indian airlines are user-friendly and efficient and the Occupation of the Respondents.	200	100.0%	0	0.0%	200	100.0%

Null Hypothesis (H_0): There is no significant association between the age group of respondents and their perception that digital technologies have improved the overall customer experience in Indian airlines, and there is no significant association between the occupation of respondents and their perception that online booking systems and mobile apps of Indian airlines are user-friendly and efficient.

Alternative Hypothesis (H_1): There is a significant association between the age group of respondents and their perception that digital technologies have improved the overall customer experience in Indian airlines, and there is a significant association between the occupation of respondents and their perception that online booking systems and mobile apps of Indian airlines are user-friendly and efficient.

Online booking systems and mobile apps of Indian airlines are user-friendly and efficient and the Occupation of the Respondents. Crosstabulation							
		Occupation of the Respondents.					Total
		Student	Employed	Self-employed	Retired	Other	
Online booking systems and mobile apps of Indian airlines are user-friendly and efficient.	Strongly Disagree	1	1	3	0	2	7
	Disagree	2	3	4	5	4	18
	Neutral	8	5	9	6	5	33
	Agree	16	16	16	15	10	73
	Strongly Agree	15	14	11	15	14	69
Total		42	39	43	41	35	200

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.703[a]	16	.925
Likelihood Ratio	9.975	16	.868
Linear-by-Linear Association	.329	1	.566
N of Valid Cases	200		
a. 10 cells (40.0%) have expected count less than 5. The minimum expected count is 1.22.			

Interpretation: The Chi-square test results indicate that there is no statistically significant association between age group and perception of digital technologies improving customer experience ($\chi^2 = 17.497$, $p = 0.354$), as well as between occupation and perception of user-friendly and efficient online booking systems and mobile apps ($\chi^2 = 8.703$, $p = 0.925$), since the p-values are greater than 0.05. This suggests that positive perceptions toward digital technologies in Indian airlines are consistently observed across different age groups and occupational categories. The high frequency of "Agree" and "Strongly Agree" responses in all demographic segments highlights a broadly favourable attitude toward digital transformation initiatives in the airline industry. Overall, the findings reflect a uniform and positive acceptance of digital technologies, indicating that improvements in customer experience and digital service efficiency are widely recognized regardless of respondents' demographic differences.

CORRELATION

Correlation Analysis between Digital Check-in Facilities and Operational Efficiency in Indian Airlines

Null Hypothesis (H_0): There is no significant relationship between digital check-in and e-boarding passes, reducing waiting time at airports and improving operational efficiency in Indian airlines.

Alternative Hypothesis (H_1): There is a significant relationship between digital check-in and e-boarding passes, reducing waiting time at airports and improving operational efficiency in Indian airlines.

Descriptive Statistics			
	Mean	Std. Deviation	N
Digital check-in and e-boarding passes have reduced waiting time at airports.	3.73	1.182	200
Automation and digital systems have improved operational efficiency in Indian airlines.	3.58	1.183	200

Correlations			
		Digital check-in and e-boarding passes have reduced waiting time at airports.	Automation and digital systems have improved operational efficiency in Indian airlines.
Digital check-in and e-boarding passes have reduced waiting time at airports.	Pearson Correlation	1	-.061
	Sig. (2-tailed)		.387
	N	200	200
Automation and digital systems have improved operational efficiency in Indian airlines.	Pearson Correlation	-.061	1
	Sig. (2-tailed)	.387	
	N	200	200

Interpretation: The correlation analysis was conducted to examine the relationship between the effectiveness of digital check-in and e-boarding passes in reducing airport waiting time and the improvement in operational efficiency of Indian airlines. The mean scores for both variables are above the average level, indicating that respondents generally agree that digital initiatives contribute positively to passenger experience and airline operations. Although the Pearson correlation value ($r = –0.061$) indicates a very weak relationship and the significance value ($p = 0.387$) shows that the relationship is not statistically significant, the overall descriptive results reflect a positive perception of digital transformation in the aviation sector. This suggests that digital check-in and automation initiatives are viewed as beneficial and play an important supportive role in enhancing efficiency and streamlining airport operations, even if the direct statistical relationship between the two variables is minimal in this sample.

Correlation between the Use of Data Analytics and Digital Tools for Personalised Passenger Services and Cost Reduction through Digital Transformation in Indian Airlines

Null Hypothesis (H_0): There is no significant relationship between the use of data analytics and digital tools for offering personalized services to passengers and the reduction of operational costs through digital transformation in Indian airlines.

Alternative Hypothesis (H_1): There is a significant relationship between the use of data analytics and digital tools for offering personalized services to passengers and the reduction of operational costs through digital transformation in Indian airlines.

Descriptive Statistics			
	Mean	Std. Deviation	N
Data analytics and digital tools help Indian airlines offer personalized services to passengers.	3.66	1.193	200
Digital transformation has helped Indian airlines reduce operational costs.	3.80	1.125	200

Correlations			
		1Data analytics and digital tools help Indian airlines offer personalized services to passengers.	Digital transformation has helped Indian airlines reduce operational costs.
Data analytics and digital tools help Indian airlines offer personalized services to passengers.	Pearson Correlation	1	.023
	Sig. (2-tailed)		.744
	N	200	200
Digital transformation has helped Indian airlines reduce operational costs.	Pearson Correlation	.023	1
	Sig. (2-tailed)	.744	
	N	200	200

Interpretation: The correlation analysis indicates a positive Pearson correlation (r = 0.023) between the use of data analytics and digital tools for providing personalised passenger services and the reduction of operational costs through digital transformation in Indian airlines. Although the relationship is very weak and statistically not significant at the 5% level (p = 0.744), the positive direction of the correlation suggests that increased adoption of data analytics and digital tools may contribute to both enhanced customer personalisation and operational efficiency. This implies that digital transformation initiatives in Indian airlines have the potential to simultaneously improve passenger experience and support cost optimisation, even though the present relationship is minimal.

Correlation between the Use of Social Media and Digital Platforms and the Competitiveness of Indian Airlines

Null Hypothesis (H_0): There is no significant relationship between the effective use of social media and digital platforms by Indian airlines and the increase in their competitiveness in the global aviation industry.

Alternative Hypothesis (H_1): There is a significant relationship between the effective use of social media and digital platforms by Indian airlines and the increase in their competitiveness in the global aviation industry.

Descriptive Statistics			
	Mean	Std. Deviation	N
Indian airlines effectively use social media and digital platforms to communicate with passengers.	3.99	1.049	200
Overall, digital transformation has increased the competitiveness of Indian airlines in the global aviation industry.	3.95	.993	200

Correlations			
		Indian airlines effectively use social media and digital platforms to communicate with passengers.	Overall, digital transformation has increased the competitiveness of Indian airlines in the global aviation industry.
Indian airlines effectively use social media and digital platforms to communicate with passengers.	Pearson Correlation	1	.062
	Sig. (2-tailed)		.384
	N	200	200
Overall, digital transformation has increased the competitiveness of Indian airlines in the global aviation industry.	Pearson Correlation	.062	1
	Sig. (2-tailed)	.384	
	N	200	200

Interpretation: The Pearson correlation analysis indicates a positive relationship (r = 0.062) between the effective use of social media and digital platforms by Indian airlines and their increased competitiveness in the global aviation industry. Although the correlation is weak and statistically not significant at the 5% level (p = 0.384), the positive direction suggests that better digital communication through social media may contribute to enhanced competitiveness by improving customer engagement, brand visibility, and market responsiveness. This finding implies that digital transformation initiatives, particularly in online communication, have the potential to support the competitive positioning of Indian airlines, even if the impact is modest in the present analysis.

FINDINGS

The study's conclusions unequivocally show that Indian airlines' digital transformation projects are viewed favourably by a wide range of demographic groups. Passengers' widespread acceptance and confidence are highlighted by descriptive statistics that show consistently high mean scores for variables related to AI-enabled customer service responsiveness, digital payment security, digital check-in facilities, data analytics-driven personalisation, social media engagement, and overall competitiveness.

This consistency itself reflects an inclusive impact of digital transformation, suggesting that digital services are equally effective and well-received across all customer categories, even though the ANOVA and Chi-square tests show no statistically significant differences across educational qualifications, income levels, age groups, or occupations. Even though correlation analyses show weak statistical links, they consistently show favourable directional associations between digital projects and important objectives like improved customer experience, cost savings, operational efficiency, and global competitiveness. Overall, the findings highlight how digital transformation has improved Indian airlines' customer engagement, service effectiveness, and strategic positioning, highlighting its vital role in promoting long-term growth and competitiveness in the aviation sector.

SUGGESTIONS

Indian airlines should keep bolstering and growing their digital transformation projects to further improve customer experience and operational performance based on the favourable perceptions found in the survey. While ongoing improvements to digital payment systems can strengthen passenger confidence and security, increased investment in cutting-edge AI and chatbot technology can enhance service responsiveness through more individualised, real-time customer care. Additionally, airlines can make better use of data analytics to lower operating costs, optimise pricing tactics, and provide customised services. Airport congestion can be decreased, and passenger journeys can be further streamlined by improving the usability of digital check-in facilities, online booking systems, and mobile applications. Additionally, to increase consumer engagement, brand awareness, and global competitiveness, strategic usage of social media and digital communication channels should be increased. The long-term advantages of digital transformation in the Indian aviation industry may be sustained by regular digital literacy programs and feedback-driven system enhancements that guarantee technical advancements stay inclusive, user-friendly, and in line with changing passenger expectations.

CONCLUSION

According to the study, a wide range of passenger groups view digital transformation initiatives in Indian airlines as beneficial and successful. This is indicative of a high level of acceptance and satisfaction with technologies like AI-enabled customer service, secure digital payments, online booking systems, digital check-in, data-driven personalisation, and social media engagement. The consistently high mean scores imply a uniformly favourable influence on customer experience, operational efficiency, cost management, and overall competitiveness, even if statistical analyses reveal no significant differences among demographic groups. These results highlight the strategic importance of digitalisation in boosting long-term growth and service quality, enabling Indian airlines to maintain their competitiveness in the rapidly changing global aviation market.

REFERENCE

1. Heiets, I., La, J., Zhou, W., Xu, S., Wang, X., Xu, Y. (2022). Digital transformation of the airline industry. Research in Transportation Economics, 92, Article 101186. https://doi.org/10.1016/j.retrec.2022.101186
2. Yoon, Moon Gil; Yoon, Duk Young; Yang, Tae Won. (2006). Impact of e-business on air travel markets: Distribution of airline tickets in Korea. Journal of Air Transport Management, 12(5), 253–260. https://ideas.repec.org/a/eee/jaitra/v12y2006i5p253-260.html
3. Tan, J. H. & Masood, T. (2021). Adoption of Industry 4.0 technologies in airports — A systematic literature review. arXiv:2112.14333. https://arxiv.org/abs/2112.14333
4. Mirthipati, T. (2024). Enhancing airline customer satisfaction: A machine learning and causal analysis approach. arXiv:2405.09076. https://arxiv.org/abs/2405.09076

5. Omido, N., Luke, R., Mageto, J., & Ombati, T. (2025). Industry 4.0 in commercial airlines: a bibliometric analysis. Frontiers in Future Transportation, 6, 1630011. https://doi.org/10.3389/ffutr.2025.1630011
6. GS Bawa. (2024, Nov 3). Digital Transformation In Aviation: Balancing Technology & Human Touch For Unique Customer Experience. Indian Aerospace and Defence Bulletin. https://www.iadb.in/2024/11/03/digital-transformation-in-aviation-balancing-technology-human-touch-for-unique-customer-experience/
7. How Technology and Digitalisation Are Reshaping the Indian Aviation Industry (2025). India Brand Equity Foundation (IBEF). https://www.ibef.org/research/case-study/how-technology-and-digitalisation-are-reshaping-the-indian-aviation-industry
8. Dutta, P. K., Ricciuti, M., Bogrekci, I., & Suseelan, S. (Eds.). (2026). Digital Transformation in Aviation Industry Operations: Innovations and Sustainable Solutions. Routledge. https://www.routledge.com/Digital-Transformation-in-Aviation-Industry-Operations-Innovations-and-Sustainable-Solutions/Dutta-Ricciuti-Bogrekci-Suseelan/p/book/9781032799568

QUESTIONNAIRE

1. Age group of the Respondents.

- 18-24
- 25-34
- 35-44
- 45-54
- 55 and above

2. Occupation of the Respondents.

- Student
- Employed
- Self-employed
- Retired
- Other (Please specify)

3. Annual Income of the Respondents.

- Below Rs. 20,000
- Rs. 20,000 – Rs. 50,000
- Rs. 50,000 – Rs. 100,000
- Above Rs. 100,000

4. Highest Level of Education of the Respondents

- High school
- Bachelor's degree
- Master's degree
- Doctorate
- Other (Please specify)

5. Digital technologies have significantly improved the overall customer experience in Indian airlines.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

6. Online booking systems and mobile apps of Indian airlines are user-friendly and efficient.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

7. Digital check-in and e-boarding passes have reduced waiting time at airports.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

8. Use of artificial intelligence (AI) and chatbots by Indian airlines enhances customer service responsiveness.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

9. Digital payment systems adopted by Indian airlines are secure and reliable.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

10. Data analytics and digital tools help Indian airlines offer personalized services to passengers.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

11. Automation and digital systems have improved operational efficiency in Indian airlines.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

12. Digital transformation has helped Indian airlines reduce operational costs.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

13. Indian airlines effectively use social media and digital platforms to communicate with passengers.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

14. Overall, digital transformation has increased the competitiveness of Indian airlines in the global aviation industry.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree