STRATEGIC PERFORMANCE AND COMPETITIVE EDGE IN THE AVIATION INDUSTRY: INSIGHTS FROM THE BALANCED SCORECARD APPROACH

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Abstract
The aviation sector, marked by fierce rivalry, complicated operational dynamics, as well as changing consumer expectations, demands an extensive framework to analyze and enhance its strategic performance. The current research study examines the application of the Balanced Scorecard (BSC) framework to evaluate and enhance strategic performance, together with a particular emphasis on establishing a competitive advantage in the aviation industry in general. This research examines the link among "key performance indicators (KPIs)" across four domains of the Balanced Scorecard "financial, customer, internal processes, and learning & growth" utilizing a sample comprising 388 ground personnel and customers across three different airports throughout Northern India. The structured surveys were used to gather data, with the primary emphasis being on the opinions and observations of ground personnel with relation to their strategic objectives and performance evaluation methods, as well as the perspectives of customers with respect to their entire experience and level of satisfaction. In order to establish a lasting competitive advantage in the aviation industry, the research offers novel insights concerning all the capacities in which the BSC might be used at all levels of a business. This research enhances the current literature by providing empirical evidence into the perceptions of ground personnel, a vital operational aspect of aviation, regarding the use of the Balanced Scorecard across their working environment. Finally, the results will make a contribution to both the field of academia along with the practical management practices employed within the aviation sector.

Key words: *Aviation Industry, Balanced Scorecard, Competitive Advantage, Ground Staff, Strategic Performance.*

JEL Classification: *L25; L93*

1. INTRODUCTION

The aviation industry has seen remarkable changes in recent years. The deregulation and liberalization of industries have attracted several developing firms to the industry, facilitating a rise in mergers and collaborative partnerships among organizations (Brueckner, Lee, & Singer, 2013). The intensified competition within the industry has considerably prompted more studies aimed at assessing efficiency and evaluating performance across airline businesses. (Mallikarjun, 2015). Consequently, the aviation business constitutes among the most fiercely competitive as well as dynamic fields, and in order to get a competitive advantage, it is essential to achieve both operating effectiveness and strategic success simultaneously. Given increasing customer demands, shifting fuel costs, strict laws and regulations, and changing consumer expectations, travel companies are always looking for new methods to enhance their efficiency and profitability. The Balanced Scorecard (BSC), which is a tool for strategic management, has evolved as a complete framework for assessing the performance of a business along four specific aspects: "financial, customer, internal processes, and learning and growth". The Balanced Scorecard has been extensively used across several sectors; yet, its application within the aviation industry, specifically regarding operational personnel like ground crew, is notably under examined. Ground crew is essential for facilitating smooth daily operations, thereby impacting customer satisfaction, security and efficiency in operations. Nevertheless, the majority of research on strategic success in aviation mostly emphasizes upper management or aviation operations, frequently overlooking the perspectives and opinions of ground personnel. This generates a considerable research void, since ground personnel often serve at the first lines of execution of services and may provide critical insights into the operational efficacy of strategic efforts. Although the Balanced Scorecard (BSC) is extensively used, research in aviation mostly focuses on management or executive tiers, emphasizing financial achievement, operations related to flights, and the development of strategies. Niven (2014), for instance, emphasizes the significance of connecting corporate policy with performance measurements, although he

focuses mostly on the viewpoints of upper management. In a similar vein, Kaplan and Norton (2001), who were responsible for the development of the BSC, concentrated on implementing it at the helm within organization leadership. This resulted in a lack of comprehension of its applicability at the management level. Research conducted by Lee and Moon (2019) and Kılınç and Aydın (2020) examines the Balanced Scorecard (BSC) in the aviation sector, highlighting customer and financial dimensions while neglecting the contributions of ground personnel in "internal processes and learning and growth". This research aims to fill this gap by examining the implementation of the Balanced Scorecard from the viewpoint of ground personnel in the aviation sector. By concentrating on this often disregarded group, the study seeks to understand how ground personnel view the BSC's ability to promote strategic success and competitive edge. Consequently, the main aim of this research is to assess the strategic efficiency and competitive advantage of the Indian aviation industry via the application of the Balanced Scorecard framework. To be more specific, the research will investigate the connections between the four concepts of the BSC, with the goal of presenting empirical data on the ways in which operations associated with ground staff might align with wider organizational strategy. The results are anticipated to enhance academic research and practical operational techniques, providing new perspectives on the optimization of ground business operations and the enhancement of overall effectiveness in the aviation sector.

11. LITERATURE REVIEW

The Balanced Scorecard (BSC), originally developed by Kaplan and Norton during 1992, has evolved into a comprehensive performance measurement tool that integrates financial and non-financial perspectives to provide a balanced evaluation of organizational performance. The four aspects of the Balanced Scorecard "financial, customer, internal processes, and learning & growth" provide a comprehensive framework for assessing businesses achievement (Naveeda, et al. 2021). The method appears to be extensively adopted throughout multiple sectors, notably as manufacturing, the health sector and education; yet, its implementation within the aviation sector is still inadequately investigated, particularly in the operating level. The majority of studies conducted in the aviation industry concentrate on top management levels, while neglecting the roles that ground staff plays in strategic success. Kaplan and Norton (2001), for their pioneering works on the Balanced Scorecard, underscored its significance in connecting business strategy together with performance indicators.

Nonetheless, their emphasis was mostly on the application of the Balanced Scorecard among upper management for making strategic decisions. Ground-level personnel, especially ground crew in the aviation sector, who are essential to everyday operations along with customer satisfaction, was not given sufficient attention. Consequently, this results in a lack of comprehension about the manner in which the BSC framework may be implemented at different levels of the business, including operational tasks that are essential to the accomplishment of profitable results by airlines. There have been studies, such as Niven (2014), that have shown the BSC's versatility as a method for aligning different business divisions with strategic objectives. These studies have widened the applicability of the BSC outside top management. Nonetheless, there exists a paucity of studies concerning the incorporation of BSC within the aviation industry. Kılınç and Aydın (2020) conducted an investigation on the use of BSC while evaluating performance in the airline industry. However, their primary emphasis was on analyzing financial results and customer viewpoints. Despite the fact that these viewpoints are necessary, they do not adequately represent the entire spectrum of the contributions made by ground personnel, notably in the areas of "internal processes and learning and growth" aspects.

2.1. Learning & Growth perspective and the Internal Business Processes perspective

The association among the "Learning & Growth perspective and the Internal Business Processes" perspective is crucial in the aviation sector, where ongoing enhancement of personnel competencies and organizational capacities may markedly increase operating efficiency. The Learning & Growth approach emphasizes cultivating a competent and competent workforce, promoting innovation, and using technology all are essential elements for enhancing internal operations of the business (Kaplan & Norton, 1992). Studies indicate that firms emphasizing staff development and learning management are more likely to optimize their internal operations, resulting in enhanced customer service, operational effectiveness, and risk mitigation in aviation (Meyer & Mugler, 2001; Albrecht & Sack, 2012). For example, training initiatives targeted at improving the technological and customer support abilities of airline personnel may directly lead to enhancement in operating operation, including rapid check-ins or even more effective resolution of problems while in delays (Martínez-Costa & Jiménez-Jiménez, 2008). Irrespective of these observations, a considerable study vacuum persists in the airline sector concerning the underlying processes that determine Learning & Growth impact on internal processes, especially amid fast changing technology and legislative environments. Although current research emphasizes the influence of staff training on quality of service, there is a paucity of studies investigating how comprehensive learning within an organization, such as innovation and information exchange, facilitates optimization of processes in aviation (Bicheno & Holweg, 2009). This knowledge gap offers an opportunity to examine the means by

which investments within "learning and growth" might be systematically coordinated in enhancements the "internal processes", hence validating the notion of a considerable association between "Learning & growth" and "Internal Business Processes" in the aviation industry.

H1: There is a significant relationship between Learning & Growth and Internal Business Process Perspective

2.2. Internal Business Processes perspective and the Customer Perspective

The association among the "Internal Business Processes perspective" and the "Customer perspective" is vital within the aviation sector, as operational performance and service excellence directly affect satisfaction among customers and retention. The Internal Business Processes approach highlights the enhancement of essential operations, notably reliability, baggage management, safety during flight, and customer service procedures (Kaplan & Norton, 1992). Studies indicate that enhancements in internal procedures, including the reduction of delays for flights, the optimization of check-in efficacy, and the elevation of the overall quality of service, may result in increased customer satisfaction along with retention (O'Connell & Williams, 2005; Pels, 2008). For example, airlines that make investments in technology to expedite processes or lay an emphasis on staff training to enhance interactions with consumers often report better customer encounters (Chen et al., 2014). Although there is an increasing amount of research connecting operational efficiencies to customer satisfaction, the gap persists in comprehending the specific mechanisms by which "internal process enhancements" affect "customer perceptions" within various aviation service types, including low-cost providers and full-service aviation companies. Moreover, whereas several studies investigate the direct influence of operational elements on customer's outcomes, few consider whether "internal processes" may be coordinated strategically to fulfill customer requirements in a manner that fosters loyalty along with satisfaction over the long term (Yang & Yang, 2012). This gap underscores the necessity for additional research into the link among enhancements in "internal business processes" and "customer satisfaction", thereby reinforcing the hypothesis of a substantial connection among "Internal Business Processes" and "Customer Perspectives" in aviation.

H2: There is a significant relationship between Internal Business Processes Perspective and Customer Perspective

2.3. Customer Perspective and the Financial Perspective

The connection among the "Customer Perspective" and the "Financial Perspective" remains a central theme in business performance management studies, especially in sectors where customer satisfaction significantly influences financial outcomes, for example aviation. The Customer Perspective emphasizes customer satisfaction, loyalty, and retention, all are closely correlated with financial results including as revenue increases and profitability (Kaplan & Norton, 1992). Research in the aviation sector has shown that elements such as on time performance, customer service, and the entire flight encounter may profoundly influence "consumer loyalty and willingness to pay", hence impacting airlines' financial success (Lai et al., 2009; O'Connell & Williams, 2005). Despite studies consistently demonstrating a positive correlation among customer satisfaction and financial outcomes across diverse industries, a significant gap persists in the literature regarding the precise mechanisms by which customer satisfaction influences the financial success of airlines (Ahmad, Naveeda, Ali, & Rauf, 2022). Several studies have concentrated on generic customer satisfaction indicators without examining how particular elements of the customer encounters, including loyalty initiatives or service improvements, translate into measurable financial results (Zhang et al., 2016). Moreover, limited studies have examined the possible moderating variables, such as market rivalry or economic circumstances, which may affect the intensity of this link within the aviation industry. This gap offers a chance to investigate the direct association between consumer satisfaction and financial success within the realm of contemporary aviation, so substantiating the claim that a substantial link occurs connecting customers and financial viewpoints.

H3: There is a significant relationship between Customer Perspective and Financial Perspective

Figure, 1 that follows illustrates the proposed framework, incorporating the hypothesised links previously established.

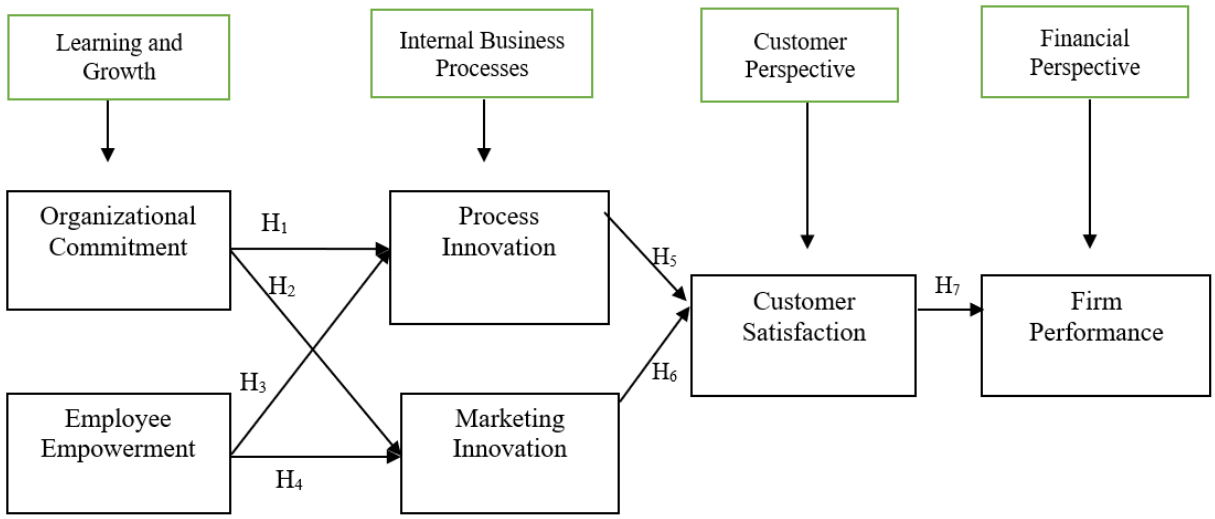

Figure 1. Proposed Model

III. MATERIALS AND METHODS

3.1. Research Design

The research approach used for the present investigation is intended to empirically examine the strategic effectiveness and competitive advantage of the aviation sector by employing a Balanced Scorecard (BSC) approach. The present investigation utilizes a descriptive method with a quantitative technique to examine the perspectives of airline personnel and customers concerning the application of the Balanced Scorecard (BSC) for measuring and improving strategic performance. A well-organized questionnaire was used to gather primary information from respondents, concentrating on the four components of the Balanced Scorecard (BSC): "financial, customer, internal processes, and learning & growth". The questionnaire questions aimed to assess the impact of ground personnel performance, service to the customer, and internal procedures on the overarching strategic objectives of the aviation sector at designated airports in India.

3.2. Measurement instrument

The study utilized a comprehensive questionnaire consisting of established measurement scales drawn from prior research. The questionnaire was evaluated using a 5-point Likert scale. Employee empowerment was measured using a six-item scale developed by Men and Stacks (2013). Organizational commitment was evaluated with a five-item scale by Mowday, Steers, and Porter (1979). Innovation constructs, including process innovation, were measured using Damanpour's (1992) scales, containing six items. Marketing innovation utilized a five-item scale by Ibarra (1993) and Hammer (2004). Customer satisfaction was assessed using Anderson and Swaminathan's (2011) five-item scale and finally, firm performance was measured using a six-item scale from González-Benito et al. (2009). These validated scales ensure reliability and accuracy in capturing the constructs. A local specialist was designated to evaluate the study instruments to confirm their content and face validity. Following the successful completion of the primary inspection technique, a preliminary study including (80) conveniently chosen individuals were carried out. After thorough examination and analysis of the responses, the investigator made the necessary modifications to the instrument based on the results during the pilot study, and the constructs' Cronbach's alpha values exceeded the minimal threshold of 0.70. (Hair et al., 1998) corroborating the instrument's reliability.

3.3. Sampling and data collection

For the purpose of this investigation, a non-probability sampling method by the name of purposive sampling is being employed. The non-probability sampling method was used because of the special characteristics of the population that was being studied, which included customers as well as employees associated with the aviation sector at three of India's most important airports: Srinagar, Amritsar, and Chandigarh. Purposive sample enabled the researcher to choose respondents that were substantially engaged in or affected by the daily operations and strategic dimensions associated with these airports. The data was collected over a three-month period. Employees and customers of Srinagar, Amritsar, and Chandigarh airports were solicited to participate in the survey. Participants were requested to evaluate their perceptions and experiences on a five-point Likert scale, with a range of 1 (Strongly Disagree) to 5 (Strongly Agree). A total of 400 individuals participated in the survey, which was considered enough for the purpose of gaining significant insights into the perspectives and experiences of aviation personnel (such as ground crew) as well as consumers at the airports that were chosen for the research. Prior studies conducted in contexts that are comparable to

this specific issue led to the selection of this particular sample size. According to Bartlett, Kotrlik, and Higgins (2001), a sample size that falls between 300 and 400 respondents is often deemed to be sufficient for the generation of results that are reliable as well as valid.

3.4. Data analysis

A survey data cleaning task was implemented prior to the data analysis to eradicate replies that were either absences or unengaged to ascertain the data's normality ((Dar & Ahmed, 2023; Ahmed & Dar, 2024). A total of twelve questions had critical elements that were either unanswered or incorrectly completed; all such responses were omitted from the original collection of data before further evaluation, resulting in the access and utilization of 388 surveys. Moreover, an examination of kurtosis and skewness indicated that neither of the responses across the factors surpassed the established criteria for normality (Hair et al., 2018). For the next step, a two-phase CBSEM was carried out using SPSS version 26 and AMOS version 26. The relevance of the measurement model was initially evaluated by means of confirmatory factor analysis (CFA), which is followed by CB-SEM to verify the proposed hypothesized relationships among all constructs.

IV. RESULTS AND ANALYSIS

4.1. Confirmatory factor analysis (CFA)

In accordance with the two-step methodology proposed by Anderson and Gerbing (1988), confirmatory factor analysis (CFA) is initially conducted on the measurement model using AMOS 23, before testing the hypotheses that were proposed. Based to the following related fit indices, the measurement model has been found to be satisfactory and accurate (table, 3). These indices include Chi-square = 478.102, DF = 241, CMIN/DF = 1.983, GFI = 0.910, TLI = 0.927, CFI = 0.969, SRMR = 0.27, and RMSEA = 0.077. The composite reliability along with average variance extracted (Table 1) both beyond the established thresholds of 0.70 and 0.50 (Hair et al., 2010; Fornell & Larcker, 1981), while the overall factor loadings (Table 1) exceeded 0.50 (Hair et al., 2010). Furthermore, the AVE square root outcomes for all components exceeded the correlation coefficients across constructs (table, 2), which provides unambiguous confirmation of discriminant validity (Fornell, & Larcker, 1981). The results obtained indicate that the measurement model exhibited adequate reliability and validity. Furthermore, "Harman's single factor test" was conducted using SPSS in order to exclude the possibility of "common method bias," which refers to fluctuation in the data mostly attributed to a single variable. The total variation explained by the single component was 28%, well below the acceptable criterion of less than 50% (Podsakoff et al., 2012).

Table 1. Measurement model results

Constructs/Items	Item loadings	CR	AVE
(EE) Employee Empowerment		**0.87**	**0.59**
EE1	.897		
EE2	.604		
EE3	.691		
EE4	.702		
EE5	.919		
(OC) Organisational Commitment		**0.87**	**0.57**
OC1	.790		
OC2	.797		
OC3	.889		
OC4	.701		
OC5	.589		
(CS) Customer Satisfaction		**0.91**	**0.65**
CS1	.747		
CS2	.710		
CS3	.809		
CS4	.938		
CS5	.974		
CS6	.632		
(MI) Marketing Innovation		**0.85**	**0.54**
MI1	.902		
MI2	.590		
MI3	.706		
MI4	.839		
MI5	.583		

(PR) Process Innovation		**0.90**	**0.61**
PR1	.975		
PR2	.615		
PR3	.887		
PR4	.831		
PR5	.658		
PR6	.682		
(FP) Firm Performance		**0.82**	**0.62**
FP1	.661		
FP2	.653		
FP3	.998		

Table 2. Discriminant validity

Constructs	OC	EE	PRI	MI	CS	FP
OC	**0.773**					
EE	0.487***	**0.760**				
PRI	0.192***	0.221***	**0.811**			
MI	0.283***	0.392***	0.163**	**0.735**		
CS	0.222***	0.443***	0.227***	0.518***	**0.786**	
FP	0.094†	0.178**	0.045	0.384***	0.249***	**0.787**

4.2. Structural model

The SEM findings (table 3) indicated a satisfactory model fit: ($\chi 2$= 547.679, DF = 241, CMIN/DF = 2.272, GFI = 0.980, TLI = 0.912, CFI = 0.947, SRMR = 0.56 and RMSEA = 0.067), as per Hair et al. (2018).

Table 3. Model fit metrics (measurement and structural model)

Fit indices	X^2	df	X^2/df	p	GFI	CFI	TLI	SRMR	RMSEA
Measurement Model	478.102	241	1.983	0.000	0.910	0.969	0.927	0.027	0.077
Structural model	547.679	246	2.272	0.000	0.980	0.947	0.912	0.056	0.067

Note: "CFI: Comparative fit index; TLI: Tucker-Lewis index; RMSEA: Root mean square error of approximation; GFI: Goodness of Fit-Index; SRMR: standardised root mean square residual".

Moreover, the proposed hypotheses under examination and their results are shown in (table 4), demonstrating that each of the given hypothesis were significant in the hypothesised direction. More precisely, the findings provide credence to the hypothesis (H1), which states that there exists a positive relation between "organisational commitment" and "process innovation." (t=3.732, β =.168, p=.000), (H2) among organisational commitment and marketing innovation (t=5.122, β =.256, p.000), and H3, between "employee empowerment" and "process innovation" (t=4.230, β =.214, p=.000). Furthermore, (H4) suggests that "employee empowerment" positively influences "marketing innovation" (t=5.650, β =.251, p=.000), (H5) indicates that "process innovation" positively influence "customer satisfaction" (t=3.729, β =.194, p=.000), and the coefficient's path estimate (t=4.255, β =.248, p=.000) indicates that "marketing innovation" positively influence "customer satisfaction" (H6). Finally, (H7) indicates that "customer satisfaction" positively influence "firm performance" (t=3.087, β =.119, p=.002).

Table 4. Hypothesis results

(H)	Hypothesized Relation	Standardised Estimate	S.E	C.R	P	Results
H1	OC→PRI	.168	.045	3.732	***	Supported
H2	OC→MI	.256	.050	5.122	***	Supported
H3	EE→PRI	.214	.051	4.230	***	Supported
H4	EE→MI	.251	.044	5.650	***	Supported
H5	PRI→CS	.194	.052	3.729	***	Supported
H6	MI→ CS	.248	.058	4.255	***	Supported
H7	CS→FP	.119	.039	3.087	.002	Supported

V. Discussion and conclusion

This research sought to examine at the significance of the Balanced Scorecard (BSC) in improving strategic performance and establishing a competitive advantage in the aviation sector. The research used a mixed-methods approach to investigate the impacts of Balanced Scorecard implementation throughout financial, customer, internal processes, and learning and growth domains. The study's findings validate that all seven presented hypotheses were accepted, demonstrating a robust association among BSC implementation and enhanced organisational performance in the aviation industry. H1 examined the impact of "organisational commitment" on "process innovation". Findings demonstrated that "organisational commitment" significantly influenced "process innovation" within the aviation sector (t=3.732, β =.168, p=.000). Consequently, H1 was accepted. Thus a positive and substantial association that occur between the two may be ascribed to the notion that dedicated employees feel more involved, driven, and eager to provide input to innovative processes that enhance organisational performance. The findings are consistent with the notion put forth by Meyer and Allen (1991), who states that three-component framework for organisational commitment, posits that individuals with strong affective commitment, characterized by emotional attachment to the organization, often demonstrate elevated levels of creativity in their positions. Such employees tend to be more predisposed to undertake risks, adopt novel concepts, and promote ongoing enhancement of internal processes, resulting in improved process innovation within the aviation sector. The findings align with De Jong and Den Hartog (2007), who advocate that organisational commitment nurtures an atmosphere favourable to innovation. H2 examined the impact of "organisational commitment" on "marketing innovation". Findings demonstrated that "organisational commitment" significantly and positively influence "marketing innovation" (t=5.122, β =.256, p.000), As a result, H2 was accepted. The results align with prior studies indicating that committed employees seem more inclined to adopt new marketing techniques and contribute to creative initiatives that improve brand awareness and consumer engagement (Grimm, 2021). The results correspond with the findings of De Jong and Rodríguez-Sánchez et al. (2020), who advocate that higher organisational commitment cultivates a culture of innovation and adaptability, crucial for navigating the competitive landscape of the aviation industry. H3 examined the impact of "employee empowerment" on "process innovation". Results (t=4.230, β =.214, p=.000) illustrated that "employee empowerment" significantly and positively influence "process innovation", Consequently, H3 was accepted. The current study links findings from prior studies that clearly indicate empowered employees, possessing increased autonomy and decision-making authority, are more inclined to initiate and execute innovative enhancements in operational processes (Chen & Lee, 2021) and are crucial in promoting process innovation (Ali, Ahmed, Sumaira, Rauf, & Rasool, 2024). Consequently, the findings show that whenever employees perceive trust and empowerment, they proactively commit to process efficiency, thus boosting overall organisational performance (Zhou et al., 2020). H4 examined the impact of "employee empowerment" on "marketing innovation". Results (t=5.650, β =.251, p=.000) exhibit that "employee empowerment" significantly and positively influence "marketing innovation", As a consequence, H4 was accepted. The finding aligns with earlier studies, suggesting that empowered personnel, with enhanced decision-making authority, actively help contribute towards marketing strategies, producing novel campaigns that correspond with changing market needs (Jiang & Chen, 2022). When employees feel appreciated and are provided with the freedom to innovate, they contribute novel concepts to the marketing sector, hence improving brand distinctiveness and customer engagement (Patel & Singh, 2021). This empowerment fosters proactive engagement in marketing innovation, enhancing a competitive edge in the rapidly evolving aviation sector. H5 examined the influence of "process innovation" on "customer satisfaction". As per the findings of the study (t=4.230, β =.214, p=.000) "process innovation" significantly and positively influence "customer satisfaction", Thus, H5 was accepted. These findings are therefore in accordance with previous study findings that indicate

improvements in operational procedures, including automated handling of baggage, expedited check-ins, and better in-flight amenities, improve passenger experiences by eliminating delays and boosting convenience (Gomes et al., 2020). Consequently, airlines implementing process innovations often see elevated satisfaction among consumers attributed to enhanced operational efficiency and flexibility to passenger's requirements (Liao & Yu, 2019). H6 examined the influence of "marketing innovation" on "customer satisfaction". As per the findings of the study (t=3.087, β =.119, p=.002) "marketing innovation" significantly and positively influence "customer satisfaction", Hence, H6 was accepted. The findings are consistent with the notion put forth by Kim & Lee, (2021), who states that Innovative marketing techniques, like individualised promotions, loyalty programs, and online marketing activities, augment consumer engagement and happiness by providing more relevant and customised experiences. Airlines using innovative marketing strategies often achieve enhanced customer loyalty along with satisfaction via better engagement and alignment with consumer preferences (Wang & Zhang, 2020). Finally, H7 assessed the impact of "customer satisfaction" on "firm performance". According to the study's results (t=3.087, β =.119, p=.002) "customer satisfaction" significantly and positively influence "firm performance", Consequently, H7 was accepted. These results corroborate the conclusions drawn from previous studies indicating that Enhanced customer satisfaction, attained by better quality of service and excellent customer experience, frequently results in enhanced customer loyalty, repeated business, and favourable word-of-mouth, every one of which enhance a firm's financial success (Heskett et al., 2020). Therefore, Customer satisfaction increases the likelihood that they will suggest an airline, which in turn leads to increased share of the market and growth in revenue (Li & Liu, 2019). This association highlights that customer satisfaction serves as a crucial factor for both immediate profitability and sustained competitive edge in the aviation sector. In general, the Balanced Scorecard has been shown to be useful strategic management measure for aviation firms, assisting them in improving their financial performance, the well-being of their customers, their internal procedures, and the professional growth of their employees. The confirmation of each of the seven hypotheses highlights the BSC's significance in synchronising organisational goals with performance indicators, therefore fostering creativity and competitive edge.

5.1. Theoretical and managerial implications

The research's theoretical implications indicate that the use of the Balanced Scorecard (BSC) within the aviation sector can be broadened to include overlooked views, notably those of ground staff, who are essential to everyday operational success despite frequently ignored in strategic management research. This study offers a novel theoretical perspective by exploring how the Balanced Scorecard (BSC) could be adapted to improve internal processes and foster learning and growth at the operational level, in contrast to earlier studies that primarily concentrated on higher management along with financial performance (Kaplan & Norton, 2001; Niven, 2014). This study expands the application of the BSC, highlighting its significance in promoting strategic efficiency and competitive advantage by including all organisational levels, rather than only leadership. From a managerial viewpoint, the results underscore the need of involving ground staff in the formulation of strategic plans, as their valuable input into internal procedures may markedly enhance efficiency in operations, customer satisfaction, along with quality of service in general. This study emphasises the necessity for a better comprehensive approach to performance management in the aviation industry that incorporates the viewpoints of all employees, especially those in frontline positions, to enhance ground operations and attain strategic objectives (Brueckner, Lee, & Singer, 2013; Mallikarjun, 2015). Aviation executives may use the Balanced Scorecard (BSC) to discern key performance indicators (KPIs) that correspond with overall organisational goals, therefore promoting strategic coherence across divisions. Like for example, the airline companies can employ customer satisfaction measurements via BSC to refine customer loyalty initiatives, therefore improving customer retention along with profitability (Neely et al., 2002). In addition, the BSC's emphasis on internal processes allows managers to perpetually enhance operational efficiency, essential for sustaining cost effectiveness in the heavily scrutinised aviation industry (Gomes & Yasin, 2011). Furthermore, the BSC promotes a proactive strategy by integrating learning and growth dimensions, facilitating innovation and adaptation for aviation companies in response to evolving market dynamics (Gomes & Yasin, 2011). The research indicates that integrating ground staff operations with the overarching organisational strategy using the BSC framework enables aviation firms to achieve a lasting competitive advantage, enhance performance across several dimensions, and more effectively address the industry's dynamic demands. In summary, the framework provided by the BSC not only makes strategic decision-making easier, but it also improves organisational agility, which assists aviation firms in achieving sustainable performance and keeping a competitive advantage.

5.2. Limitations and future research directions

This study contains several limitations along with possibilities for further investigations. The study is geographically restricted to three major airports in Northern India, potentially limiting the generalizability of the results to other areas or global contexts. Future

investigations should expand the geographical reach to incorporate a more diversified array of airports. The research predominantly emphasises the viewpoints of ground staff and customers, overlooking other significant stakeholders like as airline administration, crew members who might provide vital information into the BSC's influence. An approach that is more all-encompassing and involves several stakeholders would contribute to a deeper comprehension of strategic performance in the aviation industry. Additionally, the cross-sectional design of the study collects data at a particular moment, limiting the observation of long-term consequences of BSC adoption; longitudinal studies might provide more profound insights concerning the long-term viability and progression of strategic performance. Being reliant on self-reported information from surveys can lead to biases, including social desirability and subjective interpretation, thus compromising the veracity of the results. Future investigations should integrate quantitative surveys together with qualitative methodologies to alleviate these biases. Lastly, the study fails to consider the impact of emergent technologies, including artificial intelligence (AI) and data metrics, on the implementation of the BSC framework. This area is worthy for further investigation in light of the aviation industry's accelerated technological advancements.

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