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Market Dynamics, Operational Challenges, and Growth Prospects of Bangladesh's Airline Industry: Evidence from an Empirical Assessment

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Abstract

The expansion of Bangladesh's aviation sector underscores the need to examine key factors driving its competitiveness and long-term development. However, existing research remains fragmented, offering limited insight into how diverse challenges and opportunities collectively shape industry growth. This study bridges this gap by evaluating Bangladesh's airline sector through the perspectives of key aviation stakeholders and air passengers. A qualitative research design was employed, involving semi-structured interviews with 25 participants across diverse stakeholder groups, airline professionals , aviation experts , travel industry professionals, passengers. Data were analyzed through thematic analysis using NVivo 15 to identify critical patterns regarding industry constraints and development opportunities. The findings demonstrate that Bangladesh's airline competitiveness is constrained by interconnected operational, institutional, technological, and human-capital challenges, including cost pressures,

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fleet limitations, regulatory inefficiencies, infrastructure constraints, workforce gaps, service quality issues, and limited technological advancement. However, significant opportunities exist through international route expansion, fleet modernization, digital transformation, sustainable aviation practices, public-private partnerships, and human capital development. This study advances aviation management literature by providing an integrated understanding of airline competitiveness in an emerging market context, demonstrating that sector development depends on the interaction of multiple capabilities rather than isolated improvements. Practically, the findings offer strategic insights for policymakers, aviation authorities, and airline managers to design and implement coordinated initiatives for enhancing operational efficiency, passenger experience, and sustainable industry growth.

Introduction

Air transport plays a vital role in economic development by facilitating the movement of people, goods, capital, and knowledge across national and international borders. Beyond providing mobility, the aviation industry enhances trade competitiveness, tourism development, labour migration, regional integration, and business connectivity, making it a strategic sector for both developed and emerging economies (Utouh & Lushiku, 2026; Tolcha et al., 2026). As globalization and technological innovation continue to reshape international mobility, the efficiency and competitiveness of airline industries have become increasingly important for achieving sustainable economic growth and strengthening national connectivity.

Bangladesh has experienced steady growth in air transportation over the past decade, driven by expanding domestic and international travel, overseas employment, business activities, tourism, higher education, and the rising purchasing power of its middle-income population (Huda, 2019; Sultana, 2018; Mahmud et al., 2026). The airline industry has consequently become an important contributor to employment generation, tourism expansion, international trade, and regional connectivity. Following the establishment of Biman Bangladesh Airlines after independence, the sector has expanded through the entry of private airlines, airport modernization, regulatory reforms, and stronger integration with regional and international aviation networks (Prayag et al., 2024; Ranjan et al., 2025). Air transport in Bangladesh has a rich historical trajectory, dating back to March 1892 when American aeronaut Jeanette Van Tassel completed the region's first manned balloon flight over Dhaka's Ahsan Manzil and Buriganga River. While modern aviation began decades later, following independence and the establishment of Biman Bangladesh Airlines, the sector has expanded rapidly through the entry of private airlines, airport modernization, regulatory reforms, and stronger integration with international aviation networks (Rezwan, 2021; Nandy, 2023). While these developments have created new opportunities for growth, they have also intensified competition and increased the need for efficient operations, technological advancement, improved infrastructure, and effective governance. The competitiveness of an airline industry depends on the interaction among operational capability, institutional governance, technological readiness, airport infrastructure, market competition, and customer experience rather than on passenger demand alone (Yasar & Gerede, 2025). Moreover, rapid market expansion, changing passenger expectations, evolving regulatory

requirements, and global industry developments continue to reshape the aviation landscape, creating both opportunities and operational challenges for airlines (Samunderu, 2024; Atay et al., 2025). Understanding these interconnected factors is therefore essential for developing effective strategies that promote industry competitiveness and long-term sustainability.

Although previous studies have examined Bangladesh's aviation sector from perspectives such as economic contribution, tourism, passenger service quality, and regulatory issues (Sultana, 2018; Huda, 2019; Mahmud et al., 2026), the existing literature remains fragmented. Most studies focus on individual aspects of the aviation sector, providing limited understanding of the complex factors that collectively shape industry performance and future development. Furthermore, empirical evidence integrating the perspectives of both aviation professionals and air passengers remains scarce, particularly in the context of Bangladesh.

To address these gaps, this study empirically investigates the market dynamics, operational challenges, and growth prospects of Bangladesh's airline industry through a qualitative assessment of aviation professionals and air passengers. By adopting an integrated analytical perspective, the study overcomes the fragmented nature of previous research and provides a comprehensive understanding of the factors shaping the performance and future growth of Bangladesh's airline industry. This holistic approach provides a more comprehensive understanding of Bangladesh's evolving airline industry and offers practical insights for policymakers, airline operators, airport authorities, and other stakeholders seeking to promote a more competitive, resilient, and sustainable aviation sector.

Literature review and conceptual framework

Literature review

Bangladesh's airline industry has attracted growing scholarly attention because of its expanding role in the country's transportation system and economic development Although studies provide valuable insights, they offer differing explanations regarding the factors that shape airline competitiveness and sustainable development. Rather than presenting a unified understanding, the existing literature reflects several unresolved debates concerning the drivers of industry performance. One of the principal debates concerns the role of market dynamics in airline development. Existing studies consistently acknowledge that growing demand for air travel has created favourable conditions for industry expansion (Huda, 2019; Mahmud et al., 2026). However, scholars disagree on whether market growth alone is sufficient to strengthen airline competitiveness. Some researchers argue that expanding demand creates opportunities for investment, network development, and long-term industry growth (Mahmud et al., 2026; Siddiqui, 2024; Siddiqui, 2023). In contrast, others contend that favourable market conditions produce sustainable benefits only when airlines possess the organizational capacity to respond effectively to increasing competition and changing market conditions (Rahman & Rahman, 2023; Samunderu, 2024). These contrasting perspectives suggest that airline competitiveness cannot be explained solely by market expansion, yet the interaction between market opportunities and organizational responses remains insufficiently understood.

Operational performance represents another important area of discussion in the aviation literature. Although researchers generally agree that airline operations are inherently complex and resource-intensive (Samunderu, 2024; Alsharari, 2024), they differ in explaining the primary sources of operational constraints. One perspective attributes operational performance mainly to economic and operational conditions (Lange et al., 2019; Samunderu, 2024), whereas another argues that broader organizational and institutional conditions exert a greater influence on long-term industry competitiveness (Rahman & Rahman, 2023; Sultana, 2018). These competing interpretations indicate that operational challenges extend beyond a single dimension and require a more integrated understanding of the factors influencing airline performance.

The literature also presents differing perspectives on the relationship between service performance and airline competitiveness. Passenger-oriented studies conceptualize airline performance primarily through travellers' evaluations of service experiences, suggesting that passenger perceptions represent a key indicator of airline success (Scotti et al., 2016). Conversely, management-oriented studies argue that service performance reflects the effectiveness of internal organizational processes and managerial capability rather than customer perceptions alone (Yasar & Gerede, 2025; Atay et al., 2025). This divergence illustrates that airline competitiveness can be viewed from both external and internal perspectives, yet relatively little research has examined how these perspectives complement one another in explaining overall industry performance. The future development of airline industries has also received considerable scholarly attention. While many studies present an optimistic outlook by emphasizing the opportunities associated with continued market expansion (Mahmud et al., 2026; Siddiqui, 2024), others argue that long-term industry growth depends on the sector's ability to adapt to evolving competitive and external environments (Yasar & Gerede, 2025; Atay et al., 2025; Tretheway & Markhvida, 2014). These differing viewpoints suggest that future growth should be understood as a multidimensional process rather than a direct outcome of market expansion alone. However, empirical evidence explaining how these different perspectives interact remains limited, particularly in emerging aviation markets.

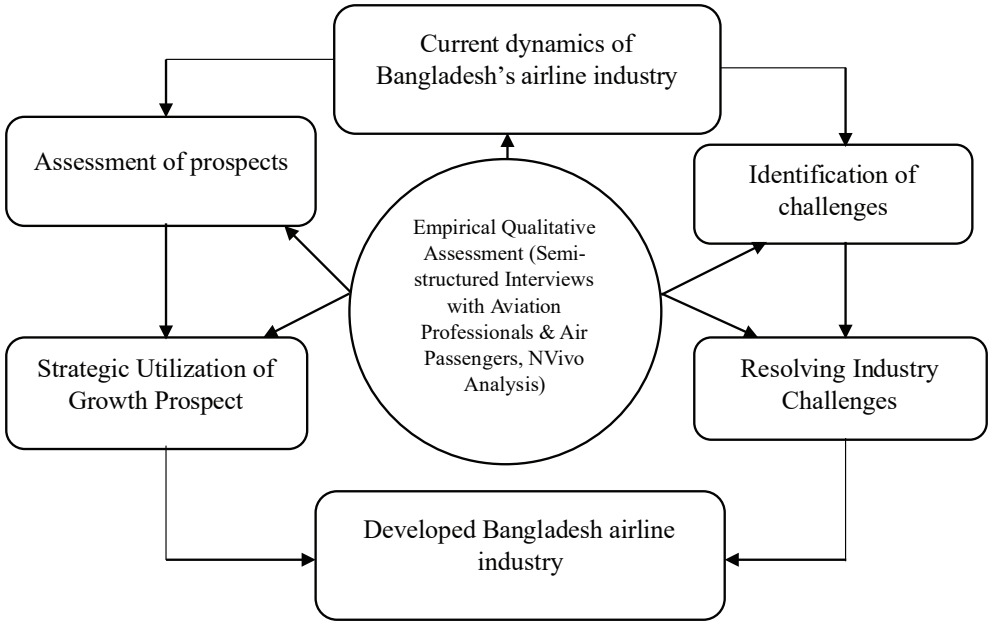
Overall, the reviewed literature suggests that current knowledge of Bangladesh's airline industry remains fragmented. Although previous studies have provided valuable insights into specific aspects of the industry, they have rarely integrated competing perspectives on airline competitiveness or incorporated the views of multiple stakeholder groups within a single empirical investigation. To address these limitations, the present study adopts an integrated qualitative approach to examine the market dynamics, operational challenges, and growth prospects of Bangladesh's airline industry from the perspectives of aviation professionals and air passengers.

Conceptual framework

The conceptual framework (Figure_1) illustrates the logical process through which the development of Bangladesh's airline industry can be understood and enhanced. It begins with the current dynamics of Bangladesh's airline industry, which represent the existing market environment and the overall condition of the industry. These dynamics reflect the present

state of airline operations and provide the basis for assessing the industry's strengths and weaknesses.

Figure 1: Integrated framework for developing Bangladesh airline industry



To understand these dynamics, the framework proposes an empirical qualitative assessment through semi-structured interviews with aviation professionals and air passengers, followed by thematic analysis. This empirical assessment serves as the central mechanism for collecting stakeholder perspectives and generating a comprehensive understanding of the industry's current situation. The assessment leads to two complementary outcomes: the identification of challenges and the identification of growth prospects. The identified challenges represent the factors that hinder the industry's performance and sustainable development, whereas the identified prospects represent the opportunities that can support future growth and competitiveness.

The framework further assumes that sustainable industry development depends on two strategic actions. First, the identified challenges should be effectively addressed through appropriate policies, managerial initiatives, and industry interventions. Second, the identified growth prospects should be strategically utilized to maximize their potential contribution to the industry. These two processes are complementary, as addressing challenges alone cannot ensure development without utilizing available opportunities, while exploiting opportunities without resolving existing constraints is unlikely to produce sustainable outcomes.

Accordingly, the framework proposes that the combined effect of addressing the identified challenges and strategically utilizing the identified prospects contributes to the development

of Bangladesh's airline industry. In this context, a developed airline industry refers to one that is more competitive, operationally efficient, resilient, customer-oriented, and capable of supporting the country's long-term economic and transportation development. Thus, the framework provides the conceptual foundation for the study by illustrating how an empirical assessment of the industry's current dynamics can inform strategic actions that promote its sustainable development.

Research methodology

This study adopted a qualitative research design to explore the market dynamics, operational challenges, and growth prospects of Bangladesh's airline industry from the perspectives of relevant stakeholders. A qualitative approach was considered appropriate because the study sought to obtain an in-depth understanding of participants' experiences, perceptions, and opinions regarding the current condition and future development of the airline industry rather than examine statistical relationships. Both primary and secondary data were used. Primary data were collected through semi-structured interviews, while secondary data were obtained from journal articles, industry reports, airline websites, government publications, and relevant news sources to provide contextual support and enable data triangulation.

A purposive sampling technique was employed to recruit participants with relevant knowledge and experience of Bangladesh's airline industry. The selection criteria required participants to have either professional involvement in the aviation sector or direct experience using domestic or international airline services. Accordingly, the sample comprised airline professionals (Ground-service specialists, managing officials, employees of private airlines, operations managers, and senior supervisors of international airlines), travel industry professionals (Independent travel agents), aviation experts (Aviation journalists and aviation professionals/trainers), and air passengers. Participants were interviewed at Hazrat Shahjalal International Airport (Dhaka) and Shah Amanat International Airport (Chattogram) during the first week of February 2026. A total of 25 participants were interviewed. Data collection continued until thematic saturation was achieved, at which point additional interviews yielded no substantially new information relevant to the research objectives.

Table 1: Respondent profile

Respondent details	Number of respondents
Airline professionals	11
Aviation experts	4
Travel industry professionals	4
Passengers	6
Total	**25**

Data were collected using a semi-structured interview guide designed from the research objectives and the reviewed literature. The interview guide contained open-ended questions that encouraged participants to discuss their experiences and opinions regarding airline services, operational issues, market conditions, industry challenges, and future development

opportunities. Before the main data collection, the interview guide was pilot-tested with two respondents possessing aviation-related experience to assess the clarity, relevance, and sequencing of the questions. Minor wording revisions were made based on their feedback. All interviews were conducted face-to-face with participants' informed consent, and detailed notes were recorded during the interviews. The collected data were analyzed using thematic analysis with the support of NVivo 15. The analysis followed an iterative coding process involving repeated reading of the interview data, initial open coding, grouping similar codes into categories, and developing broader themes that reflected recurring patterns across participants' responses. Themes were continuously reviewed and refined to ensure they accurately represented participants' views and addressed the research objectives.

To enhance the trustworthiness of the findings, credibility was supported through the inclusion of diverse stakeholder groups and triangulation of primary interview data with secondary sources. Transferability was enhanced by providing detailed descriptions of the research context, participant characteristics, and data collection procedures. Dependability was ensured by maintaining a systematic coding process and documenting the analytical procedures throughout the study. Confirmability was strengthened by supporting the identified themes with direct quotations from participants, ensuring that the interpretations were grounded in the empirical data rather than researcher assumptions. Ethical standards were maintained throughout the research process. Participation was voluntary, informed consent was obtained from all respondents before the interviews, participant anonymity was ensured by replacing names with respondent identification numbers, and all collected information was used solely for academic research purposes.

Findings

Challenges facing Bangladesh's airline industry

Based on the findings of the survey, Bangladesh's airline industry is currently facing several major challenges that affect its operational efficiency, passenger satisfaction, financial sustainability, and long-term competitiveness. The responses collected from industry professionals, travel agents, aviation academicians, and passengers show that the problems are not limited to one area only. Rather, the challenges are linked to broader structural, operational, financial, regulatory, technological, and market-related constraints that continue to affect the airline's overall competitiveness and service performance.

Operational cost pressure and limited modernization

Operational cost pressure and limited modernization emerged as closely interconnected challenges that undermine the competitiveness of Bangladesh's airline industry. Participants consistently described high operating expenses, aging aircraft, limited investment capacity, and slow technological advancement as reinforcing one another. As respondent 1 noted, *"Jet fuel, landing fees, and spares are 15–20% more expensive than regional peers, compounded by 15-year-old aircraft that need urgent retirement."* Respondent 3 similarly emphasized that limited capital inflows restrict investment in fleet renewal, modern technology, and skilled human resources.

This pattern suggests that financial constraints drive persistent operational inefficiencies. Delayed investment in newer aircraft and technology increases maintenance requirements and operating costs, further reducing the resources available for modernization. As a result, financial pressure and limited modernization reinforce one another, creating a cycle that constrains long-term airline performance.

Previous studies have linked aging fleets and rising operating costs to reduced airline efficiency (Nam et al., 2023; Mohamed, 2025). However, the present study extends this understanding by showing that stakeholders perceive these factors as mutually reinforcing rather than independent challenges. This perspective underscores that airline competitiveness depends on the combined effects of financial capacity and modernization, highlighting the need for coordinated investment in fleet renewal, technological advancement, and cost management (Merlo, 2024; Kabashkin & Perekrestov, 2024).

Skilled human resources, professionalism, and airline service development

Shortages of skilled human resources and limited professionalism emerged as strategic challenges affecting the development of Bangladesh's airline industry. Respondent 12 stated, *"Lack of skilled human resources and lack of professionalism among stakeholders are major barriers to the development of Bangladesh's airline industry."* Likewise, respondents 16, 21, 22, and 25 highlighted the need for better staff training, stronger management, improved communication, and greater crew professionalism. Respondent 3 further noted that *"Bangladesh needs to co-fund cadet-pilot and maintenance, repair and overhaul (MRO) apprenticeship programs with local universities to create a steady pipeline of qualified engineers and pilots."*

Participant perspectives indicate that workforce capability influences airline performance beyond staffing availability. Limited investment in professional development restricts airlines' ability to maintain consistent service standards, respond effectively to operational challenges, and strengthen organizational performance. As a result, deficiencies in workforce capability weaken both service delivery and long-term industry competitiveness.

Skilled aviation professionals play a critical role in maintaining safe operations, service quality, and organizational performance within the airline industry (Roba et al., 2026; Rahman, 2025; Akpur, 2024; Samunderu, 2024). The interview responses highlight that workforce capability is closely linked with broader organizational effectiveness and industry development, reinforcing the importance of sustained professional development and stronger industry–academic collaboration.

Regulatory and institutional coordination challenges

Regulatory inefficiency and weak institutional coordination emerged as major constraints on the development of Bangladesh's airline industry. Respondents consistently identified policy delays, limited transparency, and poor coordination among aviation stakeholders as barriers to operational expansion and innovation. Respondent 6 stated, "*Slow approval processes by the Civil Aviation Authority of Bangladesh for safety systems and new routes have become a roadblock to growth.*" Similarly, respondents 7 and 12 highlighted the need for

more transparent aviation policies, streamlined regulatory procedures, stronger stakeholder coordination, greater private-sector participation, and fair route and slot allocation.

The accounts gathered from respondents show that regulatory challenges extend beyond administrative procedures to influence broader industry development. Delays in route approvals, safety clearances, and operational decisions reduce airlines' ability to respond to changing market conditions, while regulatory uncertainty weakens investor confidence and limits opportunities for innovation and expansion. Together, these conditions constrain the long-term competitiveness of the industry.

Efficient regulatory systems and institutional coordination are widely recognized as important conditions for improving airline competitiveness, facilitating investment, and supporting industry growth (Gudmundsson, 2019; Birolini & Jacquillat, 2023; Samunderu, 2024; Borenstein & Rose, 2014). The evidence collected in this study points to the importance of transparent governance, coordinated institutional support, and more responsive regulatory processes for strengthening the sustainable development of Bangladesh's airline industry.

Infrastructure, capacity, and connectivity constraints

Infrastructure, capacity, and connectivity limitations emerged as major barriers to the efficient operation and expansion of Bangladesh's airline industry. Respondents consistently highlighted inadequate airport facilities, limited maintenance infrastructure, weak ground handling services, and insufficient regional connectivity as factors restricting service quality and operational efficiency. Respondent 1 suggested upgrading secondary airports such as Chittagong and Sylhet with extended runways and improved passenger lounges to accommodate larger aircraft and enhance passenger experience. Respondent 18 also identified baggage handling as an area requiring improvement, while respondent 8 stated that, "*There is a lack of sufficient direct links from secondary cities to key international markets, which limits travel options for passengers.*" Interview responses indicate that these infrastructure limitations affect the airline network beyond individual operational issues. Heavy dependence on Dhaka as the primary aviation hub increases operational pressure, while underdeveloped secondary airports restrict regional expansion and network connectivity. At the same time, inefficient baggage handling and ground-service operations reduce passenger satisfaction and weaken the overall image of both airlines and airports.

Airport infrastructure and connectivity are widely recognized as key determinants of airline efficiency, passenger experience, and network development (Tileagă & Cristian, 2025). Participants viewed these constraints as interconnected challenges affecting operational performance, regional connectivity, and service quality. This emphasizes the need to strengthen airport infrastructure, expand regional connectivity, and improve ground-service capacity to enhance the competitiveness of Bangladesh's airline industry.

Pricing pressure and market competition

Pricing pressure emerged as a major challenge, particularly for price-sensitive passengers such as students, workers, emergency travelers, and occasional travelers. Respondents consistently emphasized the importance of affordable and stable airfares, expressing concerns

about sudden fare increases and the limited availability of budget-friendly ticket options. Respondents 17, 18, 20, and 24 highlighted that ticket price remains a key consideration when selecting an airline. This suggest that pricing decisions are influenced not only by fare levels but also by broader operational and market conditions. Rising operating costs, infrastructure limitations, regulatory inefficiencies, and workforce shortages reduce the ability of local airlines to offer competitive fares. At the same time, passengers compare airfare with the overall value offered by competing airlines, leading many to prefer international carriers such as Qatar Airways, Emirates, and Singapore Airlines (Respondents 6, 8, and 23).

Airfare is widely recognized as an important determinant of airline choice, while dynamic pricing practices can influence passengers' perceptions of price fairness and affordability (Bilotkach et al., 2010; Gillen & Mantin, 2009). The interview evidence indicates that pricing competitiveness depends on balancing affordable fares with operational sustainability. This highlights the importance of improving operational efficiency to strengthen the price competitiveness of local airlines in an increasingly competitive market.

Service quality, schedule reliability, and operational transparency

Service quality, schedule reliability, and operational transparency emerged as key challenges affecting passenger satisfaction in Bangladesh's airline industry. Respondent 4 stated that, *"Unpredictable delays and cancellations are frequent, cause frustration among time-sensitive passengers and creating dissatisfaction."* Similarly, respondent 5 emphasized that inconsistent reporting of on-time performance and safety issues reduces accountability. Respondents 19, 21, 22, and 25 also highlighted concerns about flight punctuality, poor communication during delays, and airlines' failure to maintain service commitments. Respondents further recommended improvements in seating, food quality, in-flight entertainment, Wi-Fi, and passenger assistance.

Respondents' views reveal that passengers evaluate airline performance through the overall travel experience rather than individual service attributes. Delays, inadequate communication, inconsistent service delivery, and limited passenger support collectively shape perceptions of service quality, reliability, and trust. Service quality, punctuality, and communication are key determinants of passenger satisfaction and airline reputation (Jiang & Zhang, 2016; Shen & Yahya, 2021). Therefore the finding shows that improving passenger experience requires not only better onboard services but also reliable operations and transparent communication throughout the travel journey.

Post-pandemic recovery, sustainability, and global aviation trends

Post-pandemic recovery and sustainability emerged as important priorities for the future development of Bangladesh's airline industry. Respondent 6 noted that sustainability is becoming a critical consideration in airline operations, highlighting the testing of blended Sustainable Aviation Fuel on A321 aircraft. Participants also emphasized the need to promote fuel-efficient aircraft, digitalization and automation, green airport initiatives, and greater investment in aviation research and innovation.

Interview responses suggest that the industry is undergoing a transition in response to evolving global aviation standards. While international markets increasingly emphasize

environmental sustainability, digital transformation, and resilient operations, the implementation of these practices remains limited in Bangladesh. This gap constrains the industry's ability to align with emerging global expectations and strengthen its long-term competitiveness.

Post-pandemic recovery, sustainable aviation, and digital transformation have become central priorities for the global airline industry (Chen et al., 2026; Kiriş & Akıf, 2025; Robinson, 2020). The interview evidence indicates that Bangladesh's challenge extends beyond recovery from the pandemic to adapting to long-term structural changes in aviation. This highlights the need for greater investment in sustainable technologies, digital innovation, and coordinated recovery strategies to support future industry development.

Prospects of Bangladesh's airline industry

The airline industry in Bangladesh holds significant potential for future growth, supported by different segments of travel and the growing participation of private airlines. These study has identified the prospects of Bangladesh's airline industry, which has clear opportunities for expansion, but its future growth will depend on service improvements, and gradual infrastructure development.

Expansion of international routes

Expansion of international routes emerged as a major opportunity for the future growth of Bangladesh's airline industry, driven by increasing business travel, labour migration, educational mobility, medical tourism, and overseas employment. Several respondents observed that this growing demand is not fully captured by local airlines, as many passengers continue to choose established foreign carriers because of their stronger international networks, service reliability, and brand reputation. However, migrant workers often preferred the National Flag Carrier because of easier communication in Bengali. Respondent 9 stated, "I feel comfortable in Biman Bangladesh for their operation being in Bengali, the cabin crew were friendly to me, so I suggest my fellow colleagues to travel on Biman." Respondents 11–15 also emphasized the importance of strategic alliances, stronger bilateral agreements, foreign investment, and smoother visa processes to improve international connectivity.

Foreign airlines currently account for more than 70% of Bangladesh's international passenger market despite the gradual international expansion of local carriers (Siddiqui, 2026; TBS Report, 2026b). Route expansion and international collaboration are recognized as important drivers of airline competitiveness (Mahmud et al., 2026). The interview data indicate that expanding international networks will require not only opening new routes but also strengthening the partnerships and operational capabilities needed to compete more effectively in international markets.

Fleet modernization and technological integration

Fleet modernization and technological integration emerged as important opportunities for the future development of Bangladesh's airline industry. Several respondents identified aging aircraft, outdated technology, and rising maintenance costs as major operational

challenges. Respondent 3 mentioned operational bottlenecks caused by aging fleets and regulatory delays, while respondent 5 emphasized the importance of fleet modernization and technological integration to improve operational efficiency. Respondents 21, 22, 24, and 25 also emphasized the need for reliable online check-in, mobile boarding passes, improved aircraft condition, and greater use of digital technologies to enhance passenger convenience. Modernization was viewed as extending beyond fleet renewal to include digital transformation across airline operations. Newer aircraft and technology-enabled services were seen as complementary investments that improve operational efficiency while meeting passengers' growing expectations for seamless and convenient travel.

Modern aircraft and advanced digital systems contribute to lower operating costs, greater operational efficiency, and improved passenger experience (Dixon, 2006; Moghadasnian & Rajol, 2025; Alomar & Jacob, 2025). This direction is reflected in Bangladesh's aviation sector, where Biman Bangladesh Airlines signed a US$3.7 billion agreement with Boeing in 2026 to acquire 14 new aircraft and plans to expand its fleet by FY2034–35 (TBS Report, 2026a; BSS, 2026), creating opportunities to accelerate modernization and strengthen the industry's long-term competitiveness.

Regulatory reforms, policy transparency, and budget travel demand

Regulatory reforms and growing demand for affordable air travel emerged as important opportunities for the future development of Bangladesh's airline industry. Respondents identified regulatory delays, limited transparency, and slow approval processes as barriers to route expansion and operational efficiency. Respondent 3 noted that *"regulatory delays affect route expansion and service upgrades,"* while respondents 11–15 emphasized streamlined regulations, stronger private-sector participation, transparent slot allocation, and alignment with ICAO and IATA standards. Respondents also highlighted increasing demand for affordable air travel, particularly among students, workers, and occasional travelers. Concerns regarding fare affordability, sudden price increases, and simplified ticketing systems were frequently raised by respondents 7, 10, 18, 20, and 24, indicating that improved regulatory frameworks could support greater market accessibility and passenger demand.

Transparent regulation and competitive pricing are recognized as important drivers of airline accessibility and market growth (Sarker et al., 2012). Recent policy initiatives, including the Civil Aviation (Amendment) Ordinance, 2025 and the separation of CAAB's regulatory and operational functions, further demonstrate efforts to strengthen transparency and enhance the competitiveness of Bangladesh's airline industry (The Daily Star, 2026; The Bangladesh Monitor, 2026; Bangladesh Sangbad Sangstha, 2025).

Enhanced passenger experience and service quality

Enhanced passenger experience and service quality emerged as important opportunities for strengthening the competitiveness of Bangladesh's airline industry. Respondents 11, 12, 14, 15, 19, 21, 22, and 25 identified shortcomings in luggage management, flight punctuality, customer service, seat and food quality, crew professionalism, online check-in, delay communication, complaint handling, and safety standards. These concerns reflect growing

passenger expectations for reliable, transparent, and digitally supported services throughout the travel journey.

Passenger experience is shaped by the entire travel process, including booking, check-in, baggage handling, boarding, in-flight services, arrival, and post-flight support (Harison & Lahav, 2025). The finding highlights that passengers place equal importance on operational reliability, effective communication, and consistent service delivery, suggesting that improvements across all service touchpoints are essential for strengthening customer satisfaction, trust, and the competitiveness of local airlines.

Sustainable aviation practices and post-pandemic recovery

Sustainable aviation practices and post-pandemic recovery emerged as important opportunities for the future development of Bangladesh's airline industry. Respondents 11, 12, and 15 emphasized the adoption of fuel-efficient and environmentally friendly aircraft, while respondents 11 and 12 highlighted green airport initiatives such as waste reduction and the use of renewable energy. Respondents 12, 14, and 15 also stressed the importance of greater investment in aviation research and innovation to support environmentally responsible industry development.

The discussions further revealed that post-pandemic recovery extends beyond restoring passenger demand. Respondents noted that recovery efforts remain limited, indicating that the industry continues to face challenges in adapting to changing operational requirements and evolving passenger expectations. This suggests that long-term resilience depends on strengthening operational preparedness alongside sustainable development initiatives.

Sustainable aviation, digital transformation, and resilient recovery have become central priorities in the global airline industry (Syed, 2025). The perspectives shared by respondents indicate that environmental sustainability and post-pandemic recovery are increasingly viewed as complementary priorities rather than separate objectives. Integrating sustainable technologies, innovation, and resilient operational practices can help the industry meet evolving international standards while strengthening its long-term competitiveness and resilience to future disruptions.

Public-private partnerships and infrastructure development

Public-private partnerships and infrastructure development emerged as important opportunities for strengthening Bangladesh's airline industry. Respondents identified limitations in airport facilities, regional airport capacity, ground-service infrastructure, and Maintenance, Repair, and Overhaul (MRO) facilities as constraints on future growth. Respondents 1 and 5 emphasized greater private-sector participation to accelerate aviation development, while respondents 11, 12, 14, and 15 highlighted airport modernization, expanded MRO facilities, and regional airport development as key priorities.

Public-private partnerships play an important role in strengthening airport infrastructure, investment capacity, and service delivery (Gupta, 2015). In the context of Bangladesh, respondents viewed stronger collaboration between the public and private sectors as a

practical pathway to modernize aviation infrastructure, expand regional connectivity, and support tourism and business travel. Together, these improvements can strengthen the industry's long-term growth and competitiveness.

Human capital and aviation skills development

Human capital and aviation skills development emerged as important opportunities for strengthening Bangladesh's airline industry. Respondent 1 emphasized the need for better-trained airport personnel, while respondent 5 highlighted workforce development as essential for future industry growth. Respondents 21 and 25 also identified the need to strengthen passenger-facing competencies, indicating continued demand for professional skill development across aviation services.

The responses point to stronger collaboration among airlines, universities, technical institutions, and international training organizations as an important pathway for developing a skilled aviation workforce in areas such as pilot training, aircraft maintenance, airport management, ground operations, and aviation safety. Human capital investment is widely recognized as a key driver of operational capability, service excellence, and sustainable industry development (Wattanacharoensil & Yoopetch, 2012). Building domestic aviation expertise can reduce reliance on foreign professionals while creating the skilled workforce needed to enhance the long-term competitiveness and sustainable development of Bangladesh's airline industry.

Strengthening brand identity and customer loyalty

Strengthening brand identity and customer loyalty emerged as an important opportunity for enhancing the competitiveness of Bangladesh's airline industry. Respondent 6 highlighted the value of premium services and loyalty programmes for frequent business travelers, while respondent 8 associated airline preference with reputation and reliability. Respondent 9 preferred Biman Bangladesh Airlines for domestic travel because of easier communication but emphasized the need for stronger public relations and greater fare transparency. These perspectives demonstrate that passengers consider an airline's reputation and credibility alongside its operational performance when making travel decisions.

Brand reputation and customer loyalty are widely recognized as strategic assets that influence passenger retention and long-term competitiveness (Ko, 2016). Loyalty programmes and effective customer relationship strategies can further strengthen repeat patronage by reinforcing passengers' connection with an airline (Bakir et al., 2025). The accounts provided by respondents suggest that customer loyalty develops through sustained trust and a consistent brand identity rather than individual travel experiences alone. Strengthening these strategic capabilities can help Bangladeshi airlines differentiate themselves in an increasingly competitive market while enhancing their position in both domestic and international aviation.

SWOT analysis of Bangladesh's airline industry

Bangladesh's airline industry plays an important role in supporting domestic and interna-

tional connectivity, tourism, labour migration, business travel, and economic development. In recent years, the industry has experienced gradual growth due to increasing passenger demand and the expansion of private airlines. However, the sector still faces several operational, infrastructural, technological, and service-related challenges that affect its competitiveness and long-term sustainability. At the same time, there are significant opportunities for growth through modernization, digitalization, and route expansion. In this context, a SWOT analysis was conducted based on respondent perceptions and relevant literature to evaluate the current condition and future potential of the industry. Table 2 shows the SWOT analysis of Bangladesh's airline industry.

Table 2: SWOT analysis of Bangladesh's airline industry

Strengths	Weaknesses
• Growing domestic and international passenger demand • Presence of established local carriers such as Biman Bangladesh Airlines, US-Bangla Airlines, NovoAir, and Air Astra • Strong domestic market familiarity and passenger trust in selected local carriers • Price-sensitive domestic market that can be served by local airlines • Strategic geographic position and diaspora-linked travel demand • Existing aviation infrastructure base with international and domestic airports • Stakeholder awareness regarding reform, training, digitalization, and sustainability	• High operational costs and fuel-related cost pressure • Aging aircraft, limited fleet modernization, and weak technology integration • Shortage of skilled aviation professionals and weak service professionalism • Moderate passenger satisfaction with service quality, punctuality, baggage handling, and customer support • Regulatory delays, policy bottlenecks, and limited transparency • Dhaka-centric connectivity and weak secondary-city international links • Limited digital services, weak complaint handling, and inconsistent communication

Opportunities	Threats
• Expansion of international routes to labour, education, medical, tourism, and business destinations • Fleet modernization through fuel-efficient aircraft • Digital transformation through mobile check-in, smart airport systems, AI-based maintenance, and baggage tracking • Airport modernization through public-private partnerships • Development of aviation training academies and skilled workforce pipelines • Growth of budget and inclusive air travel for students, workers, and occasional travelers • Sustainability initiatives, green airports, and fuel-efficient operations	• Strong competition from foreign airlines with better service, networks, and loyalty programs • Fuel price volatility, exchange-rate pressure, and rising maintenance costs • Continued regulatory delays may reduce competitiveness and discourage investment • Infrastructure congestion, poor ground handling, and limited MRO capacity • Skilled manpower shortages and employee turnover • Passenger dissatisfaction due to delay, poor communication, baggage problems, and weak service recovery • Global environmental regulations and pressure to adopt sustainable aviation practices • Reputation risk if service promises are not matched by actual performance

The SWOT analysis shows that Bangladesh's airline industry has good growth potential, mainly because of rising passenger demand, local carrier presence, domestic market trust, and strategic travel demand. Punctuality and responsive customer support are also important strengths because they improve passenger confidence and service reliability (Camilleri, 2018). However, the industry still faces weaknesses such as high operating costs, aging aircraft, weak digital services, limited skilled manpower, and inconsistent service quality. These issues affect passenger satisfaction and reduce competitiveness against foreign airlines. At the same time, the sector has strong opportunities through international route expansion, fleet modernization, digital technologies, airport development, budget travel, and sustainability initiatives (Law, 2025; Sarker et al., 2012; Choi et al., 2026; Kang et al., 2026; Aballiar-Vista et al., 2025; Barman & Sipos, 2025). However, threats such as strong foreign airline competition, fuel price volatility, exchange-rate pressure, regulatory delays, infrastructure congestion, and global environmental rules may slow future growth (Yang et al., 2024; Abubakar, 2025; Reader, 2025; Cai et al., 2025; Jasrotia et al., 2025). Therefore, the industry needs better service quality, faster modernization, stronger regulation, digital transformation, and public-private partnerships to become more competitive and sustainable.

Result discussion

This study's findings reveal that Bangladesh's airline industry possesses genuine growth potential, yet remains constrained by interconnected structural, operational, and service-related challenges across both the supply and demand sides of the sector (Chowdhury,

2025). Human resource shortfall emerged as the most critical constraint, supporting earlier arguments that aviation growth in developing economies is often limited by shortages of skilled technical and service personnel (Samunderu, 2024). Findings showed that lack of skilled manpower as a primary challenge spanning pilots, aircraft engineers, cabin crew, ground handlers, safety inspectors, and customer-service staff. Passenger insights corroborated this through complaints about weak crew professionalism and poor communication. Without properly equipped aviation training institutions and structured cadet and maintenance programs, Bangladeshi carriers will continue falling short of international standards. High operating costs and aging fleets further erode competitiveness. Fuel, landing charges, spare parts, and maintenance costs exceed those of regional peers, while older aircraft consume more fuel and generate technical delays (O'Connell, 2026; Gudmundsson & Rhoades, 2001). Airlines consequently face a difficult trade-off between affordable fares and financial viability, making fleet modernisation a strategic imperative rather than a comfort upgrade. Passenger satisfaction remains moderate. Dissatisfactions centred on punctuality, luggage handling, customer support, food quality, seat comfort, and digital service gaps. Substantial passengers preferred Qatar Airways, Emirates, and Singapore Airlines, confirming that local carriers are being benchmarked against global standards. Regulatory and policy barriers present another significant obstacle (Harun-Or-Rashid & Liton, 2025). Stakeholders identified slow approvals for routes, aircraft acquisition, and digital systems as a major challenge, with several rating current government strategies as ineffective. These delays allow foreign airlines to capture high-demand routes before local carriers can respond (Efthymiou & Christidis, 2023). A more transparent and efficient regulatory framework one that streamlines procedures without compromising safety is therefore essential.

International route expansion presents the sector's strongest opportunity, driven by labour migration, cons travel, educational mobility, medical tourism, and religious travel. Realising it requires parallel improvements in fleet capacity, service quality, pricing transparency, and brand reputation, alongside stronger bilateral agreements and strategic alliances with foreign carriers. Digital transformation featured prominently across respondents. Passengers called for online check-in, mobile boarding passes, real-time flight tracking, baggage monitoring, and in-flight Wi-Fi, while industry respondents advocated smart airport systems and AI-driven operations collectively addressing experience, efficiency, and competitiveness in one strategic move. Airport infrastructure and regional connectivity also require urgent attention. Poor ground handling, weak baggage management, and heavy route concentration at Dhaka were consistently cited. Upgrading secondary airports in locations with most traffic Chattogram, Sylhet, Cox's Bazar, Saidpur, Jashore, and Rajshahi through public-private partnerships could meaningfully redistribute traffic and strengthen national connectivity. The SWOT analysis confirms that the industry is not demand-constrained but capability-constrained. A growing passenger base, established local carriers, and a favourable geographic position are offset by weaknesses in cost structure, fleet age, regulatory efficiency, and digital readiness weaknesses that coordinated reform can address.

Conclusion

Bangladesh's airline industry possesses considerable growth potential, supported by increasing demand for business travel, labour migration, education, tourism, and medical travel. However, the analysis demonstrates that long-term competitiveness depends on addressing interconnected challenges rather than isolated operational issues. Financial constraints, regulatory inefficiencies, infrastructure limitations, workforce shortages, service quality concerns, and limited modernization collectively influence industry performance, while opportunities such as international route expansion, technological advancement, human capital development, infrastructure investment, sustainability, and stronger customer engagement provide pathways for future growth. These insights highlight the importance of integrated strategies that enhance operational capability, institutional effectiveness, and market competitiveness simultaneously.

The research contributes to the airline management literature by providing a holistic understanding of airline development in an emerging aviation market. Rather than examining operational, regulatory, or service-related issues separately, it demonstrates how multiple dimensions interact to shape airline competitiveness and long-term industry development. Methodologically, the inclusion of perspectives from both industry stakeholders and passengers offers a broader understanding of aviation challenges and opportunities, highlighting the value of qualitative, multi-stakeholder approaches for exploring complex industry environments.

The findings provide practical implications for policymakers, aviation authorities, and airline operators seeking to strengthen Bangladesh's aviation sector. Coordinated efforts in regulatory reform, infrastructure modernization, fleet renewal, workforce development, technological innovation, and sustainable aviation practices are essential for creating a more competitive and resilient industry. Future research could apply quantitative or mixed-method approaches to examine the relationships among these factors, conduct comparative studies across emerging aviation markets, and explore the experiences of specific stakeholder groups to further advance understanding of airline competitiveness and sustainable industry development.

Ethics approval and consent to participate

Ethical approval was obtained from the Human Ethics Approval Committee, Department of Tourism and Hospitality Management, Pabna University of Science and Technology (PUST). Approval No. PUST-THM-2026-03. Participation in the study was entirely voluntary, and informed consent was obtained from all participants prior to data collection. Participants were clearly informed about the purpose, nature, and scope of the research. The anonymity, privacy, and confidentiality of respondents were strictly maintained, and all collected data were used solely for academic and research purposes.

Credit authorship contribution statement

All authors contributed equally to this work. Each author was involved in the conceptualization and design of the study, data collection, analysis and interpretation of

results, and drafting as well as revising the manuscript. All authors have read and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

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Competing interests

The authors declare that they have no competing interests.

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