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Examining the Effect of COVID-19 on the Tourism Industry in an Emerging Country: A Case Study

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Abstract: This study explores the effects of the COVID-19 pandemic on the tourism industry in Bangladesh, focusing on four critical factors: cost, security, hygiene, and food quality. Semi-structured interviews were conducted with 16 participants from various sectors within the Rajshahi district. Data saturation was achieved with 11 participants, representing accommodation, adventure, attractions, events, food and beverage, tourism services, transportation, and travel trade sectors. The findings reveal significant impacts on these sectors, including increased operational costs, security concerns, inadequate hygiene measures, and declining food quality. The study emphasizes the importance of strategic adjustments, such as cost optimization, enhanced security, improved hygiene protocols, and maintaining food quality to ensure industry resilience. These strategies are crucial for the tourism sector's sustainability and recovery in future crises. Practically, tourism companies have adapted by implementing flexible pricing, advanced cleaning procedures, and leveraging digital platforms for food services. From a social perspective, these strategies help rebuild tourist confidence, trust, and satisfaction, contributing to local economic recovery. This study contributes to tourism literature by exploring the multi-faceted impacts of the COVID-19 pandemic on the tourism industry in Bangladesh. Finally, the study suggests future research directions to gain broader insights.

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1 Introduction

Bangladesh is blessed with beautiful coastlines and beaches, archaeological sites, historical and religious landmarks, hills and islands, forests and jungles, as well as picturesque countryside featuring numerous water bodies and lush green agricultural fields (Rahman et al., 2010). Tourism is a growing industry in Bangladesh due to its natural beauty and rich heritage. Despite this, tourism only contributes 4.4% to the nation's GDP compared to the global average of 10.4% in 2018 (Karim, 2022). Despite its low GDP contribution, outbound tourism in Bangladesh is rising due to government initiatives like the 'Beautiful Bangladesh' campaign, attracting 323,295 tourists in 2019, a significant increase from 2018 (Patwary, 2020). Tourism has the potential to enhance Bangladesh's economy through effective plans and strategies (Md Kashedul Wahab & Majumder, 2011).

The tourism industry is intricately connected with various sectors directly or indirectly. Like, accommodation includes hotels, motels, resorts, homestays, and other lodging facilities (Nutsugbodo, 2016). Adventure and recreation involve activities and services catering to adventurous and recreational tourism (Rantala et al., 2018). Attractions encompass both natural and man-made sites that draw tourists (Chin & Lo, 2017). Events play a role in the development and marketing strategies of most destinations and are a major driver of tourism (Getz, 2008). The food and beverage sector includes providers such as restaurants, cafes, and food vendors (Davis et al., 2018). Tourism services particularly contain amenities providers including telecommunication services and entertainment facilities (Camilleri, 2018). Transportation covers surface, air, and water transport systems and

providers (Mak, 2003). Lastly, the travel trade sector includes intermediaries like travel agencies and tour operators (Page & Connell, 2020). These interconnections highlight the broad economic impact of the tourism industry across various sectors worldwide.

However, the emergence of COVID-19 in late 2019, first identified in China (Riou & Althaus, 2020) and later spreading globally, marked a profound turning point. Thus, it was deemed a pandemic by the World Health Organization (Jakobsson *et al.*, 2020). Besides healthcare (Rahman *et al.*, 2022), every industry in the world struggled, especially business industries (Chowdhury *et al.*, 2022). COVID-19 caused unprecedented damage to the tourism sector (Gursoy & Chi, 2020). The greatest crisis facing tourism worldwide since the 1950s has been brought on by the COVID-19 outbreak. The pandemic swiftly led to widespread travel restrictions and closures, precipitating a sharp decline in international visitors by 72% in 2020 (UNWTO, 2021a). Several countries started temperature screening, symptom screening, and surveys (South Korea, Japan, India, Singapore, Malaysia, and Thailand) for incoming Chinese tourists (Sari *et al.*, 2023). As travel restrictions, lockdowns, and social distancing measures were enforced, the tourism industry experienced a widespread disruption.

In Bangladesh, the COVID-19 virus spread in March 2020 (Alam *et al.*, 2020). Bangladesh also struggled due to the way the COVID-19 pandemic severely disrupted economic, social, educational, tourism business, and other activities (Shajahan & Shakawath, 2021; Haque, 2021). Many researchers have already investigated the impact of the COVID-19 pandemic on the tourism industry worldwide. For example, one study provided valuable insight into the immediate and uncertain impacts of the COVID-19 pandemic on global tourism (Lagos *et al.*, 2021). Another study showed that the tourism industry mainly focused on coping with the COVID-19 pandemic, highlighting the pandemic as a transformative turning point (El-Said *et al.*, 2023).

The tourism industry in Bangladesh was severely impacted by the COVID-19 pandemic, and recovery strategies like innovation and government stimulus packages are essential for mitigating the effects, according to data from 1980 to 2019 (Amin & Taghizadeh-Hesary, 2023). However, previous studies lack specific context. This study aims to provide a comprehensive analysis of the specific impacts of the COVID-19 pandemic on tourism in Bangladesh and examine the key factors contributing to these effects. Understanding the impact of COVID-19 on this industry is essential for policymakers and businesses to formulate effective strategies for recovery and

resilience, which serves as a wake-up call for the tourism and hospitality industry. The insights of this study empower travellers with confidence, thereby fostering a positive inclination towards visiting Bangladesh amidst global uncertainties.

The paper is structured into six sections. After the introduction, section 2 presents a literature review. Research methodology in section 3 describes the sample, data collection, and the data analysis used in the study process. Section 4 explains the findings of the data analysis. We discuss the empirical study results and implications from the findings in the Section 5. Section 6 offers concluding remarks on the empirical study results and directions for further research.

2 Literature Review

The COVID-19 pandemic has profoundly impacted the tourism industry, particularly concerning cost factors. Businesses have faced increased operational costs due to the need for enhanced health and safety measures, such as PPE, masks, and sanitization. Revenue losses have been substantial, with lockdowns and travel restrictions leading to decreased patronage and, in many cases, temporary closures (Sanabria-Díaz *et al.*, 2021). Reduced occupancy rates in accommodations have further worsened financial challenges, as fewer travellers meant lower bookings and prolonged vacancies. Moreover, the pandemic has created pricing pressures, with some businesses raising prices to cover costs, though this often discourages potential customers facing economic uncertainties (Sigala, 2020). Some commentators have suggested that the closure of up to 75% of small hospitality businesses due to the pandemic has resulted in greater price rationing in tourism based on increased operating costs in Europe and the USA (Goger & Hadden, 2020).

Moreover, the implementation of safety protocols, including health screenings, increased sanitization measures, and reduced capacity, has led to additional expenses for both tourists and tourism service providers. Transportation costs have risen due to decreased passenger capacities and the necessity for safety measures. Airlines, in particular, have faced unprecedented financial difficulties, exacerbated by the need to implement rigorous health and safety measures (Suau-Sanchez *et al.*, 2020). These added costs have significantly impacted the overall cost of tourism. Restaurateurs have seen operating costs rise due to social distancing, hygiene, and sanitation-related requirements (Jaipuria *et al.*, 2021). Additionally, hotel

operations have been stressed by enforcing strict hygiene standards, which has increased operational costs and reduced profitability (Shin & Kang, 2020). The cumulative effect of these aspects emphasises the pervasive financial pressure placed on the tourism industry due to the pandemic (UNWTO, 2021b).

Security concerns have always been a source of worry in the tourism industry, and the pandemic has further intensified these concerns. Tourists' perception of safety and security is vital for the recovery of the tourism sector during and after the pandemic. The importance of security to restore tourist confidence is well-documented. For instance, Ritichainuwat and Chakraborty (2009) stressed that security concerns can considerably deter tourists, affecting their travel decisions. Enhanced security protocols, therefore, become essential to reassure tourists and encourage travel. Moreover, Zheng et al. (2022) highlighted that implementing robust security measures, such as health screenings and contact tracing, can mitigate the perceived risks associated with travel. Similarly, Hashemi, et al. (2023) found that tourists are more likely to choose destinations that are perceived to have strong security measures during and post-pandemic. Chowdhury (2020) explained the impact of creating a tourist-friendly atmosphere involving local communities, alongside ensuring security and safety, particularly in areas like Chattogram and Sylhet in Bangladesh. da Silva Lopes et al. (2021) examined the attitudes and actions of visitors in Porto before and during COVID-19 and discussed the sensitivity of tourists to security concerns when making decisions about their travel plans.

Cleanliness and hygiene have gained attention because COVID-19 can be transmitted via contact with contaminated surfaces (WHO, 2020). Similarly, Jiang and Wen (2020) indicated that stringent hygiene protocols have become essential for maintaining customer trust in the hospitality industry. Their research showed that consumers were more likely to choose accommodations and dining establishments that visibly demonstrated their commitment to hygiene. A study by Alonso et al. (2020) on the food and beverage sector reveals that hygiene concerns have influenced operational practices. Restaurants and cafes have implemented measures like contactless menus, regular sanitization of high-touch areas, and staff training on proper hygiene practices to meet the new expectations of safety-conscious consumers. In the context of tourism services, Davahli et al. (2020) conferred how COVID-19 brought about a re-evaluation of hygiene standards across the industry. They found that 8% of the studies addressed safety and health issues impacted by COVID-19. Islam et al. (2021) stated that COVID-19 hindered tourism development in the Cumilla

district of Bangladesh, with tourists expressing dissatisfaction over high tour prices, inadequate security, and hygiene practices.

COVID-19 has noticeably increased the emphasis on food safety and hygiene practices to maintain high food quality in restaurants and food processing facilities. Research by Liu et al. (2020) found that the pandemic has augmented consumer awareness and expectations regarding food safety. Galanakis (2020) discussed the focus on food safety and quality to prevent virus transmission. Hobbs (2020) highlighted challenges in maintaining freshness and safety standards amid supply chain disruptions. The Food and Agriculture Organization (Food and Agriculture Organization of the United Nations, 2020) emphasised stricter safety and hygiene measures to ensure quality control during the pandemic. Siche (2020) noted that restaurants and food facilities have increased safety and hygiene measures to maintain high food quality during the pandemic. In addition, Rabbi et al. (2021) identified that COVID-19 caused food insecurity, with consumers worried about food quality, safety, and prices. This study primarily focuses on maintaining food quality and safety to address consumer concerns during the pandemic.

After reviewing the above studies, this investigation highlights a gap in the simultaneous examination of all four factors—cost, security, hygiene, and food quality—in the tourism industry of Bangladesh. It addresses the need for an understanding of how these interconnected factors collectively influence tourism sustainability in Bangladesh, offering a novel perspective that has not been thoroughly explored before.

3 Methodology

3.1 Research Design

This study is based on a qualitative approach. A technique that is used to focus a broad field of study into a single, manageable topic by gathering and analysing non-numerical data is called qualitative research (Creswell & Creswell, 2017). Qualitative research plays an important part in clarifying the values, language, and meanings attributed to people who play different roles in organizations and communities. In Bangladesh, the current study represents a new field of inquiry. Given that the qualitative model supports the new research areas, it is appropriate (Mallat, 2007).

3.2 Research Instruments

Data were collected through unstructured interviews with participants who are directly involved in or hold authority over the tourism sector in Bangladesh. This unstructured interview approach allowed for an open-ended, conversational style, where questions evolved naturally based on participants' responses. Such an approach is particularly valuable for gaining deeper insights and understanding personal perspectives. Each interview lasted approximately thirty minutes, with no external interferences during the process.

The interviews began with an introduction to the participant's profile, followed by broad, open-ended questions designed to encourage participants to share their views and experiences. As the interviews progressed, follow-up questions were asked to explore specific areas in greater depth, guided by the responses provided. Due to the unstructured nature of the interviews, questions were tailored to each participant's expertise, allowing for a more detailed and nuanced understanding of the specific impacts on Bangladesh's tourism industry. The research

questions were developed based on a review of existing literature on the impact of COVID-19 on global tourism, along with preliminary discussions with industry experts. These questions were refined to suit the specific context of Bangladesh's tourism sector. In Table 1, the interview questions are presented.

3.3 Sample and Sampling Technique

The participants are selected based on the control they have over the various tourism sectors. The sample for this study was selected based on participants' knowledge, accessibility, and availability (Berg, 2004). The qualitative research sample size should not be too large which would cause the researchers to face difficulties in extracting the data (Onwuegbuzie & Collins, 2007). Once more, the sample should not be too small, otherwise it will be difficult to extract precise data (Sandelowski, 1995). The purposive sampling method is followed to select the sample of this qualitative study. The primary objective of

Table 1: Interview Questions

Interview Checklists
1. How did the COVID-19 pandemic impact the tourism sector in Bangladesh?
2. What were the key challenges your sector faced during the pandemic?
3. How did the pandemic affect the cost structure in your tourism-related business?
4. What security concerns emerged in your sector during COVID-19, and how did you address them?
5. How did hygiene rules and safety protocols affect your operations?
6. Did food quality play a role in customer confidence during the pandemic? How?
7. How did your sector adapt to the changing situation, and what were the primary changes made?
8. What strategies do you think are essential to ensure the sustainability of the tourism industry in Bangladesh post-pandemic?

Table 2: Characteristics of Respondents

Participant	Position	Years of Experience	Age	Gender	Relevant Expertise
A	Event Coordinator	11 years	34	Male	Event management
B	Hotel Manager	14 years	47	Male	Hospitality
D	Restaurant Manager	10 years	40	Male	Culinary services
E	Transport Planner	17 years	50	Male	Logistics & Transport
F	Tourism Services Manager	7 years	32	Male	Tour guiding
G	Recreational Activity Leader	4 years	28	Female	Recreation planning
H	Food Safety Officer	8 years	35	Female	Food safety standards
K	Security Officer	4 years	38	Male	Security management
M	Restaurant Owner	9 years	41	Male	Food & beverage
N	Attraction Manager	13 years	45	Male	Tourist attractions
P	Travel Agency Owner	6 years	36	Male	Travel services

purposive sampling is to concentrate on specific traits of interest within a population to best address your research questions (Rai & Thapa, 2015). In this study, 11 people were considered as participants in Rajshahi District, Bangladesh. Because data collection is a circular process that will continue until new data is discovered, the characteristics of the sample are shown in Table 2.

3.4 Data Analysis

This study systematically analyses the data collected through classification and comparison (Yin, 2009). A thematic analysis technique (Braun & Clarke, 2006) is used to examine the interview materials, which were sorted and reorganised into themes and subthemes (Fereday & Muir-Cochrane, 2006). Thematic analysis involved six key stages: familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and writing up the findings (Braun & Clarke, 2006). The identified themes and subthemes were informed by the research questions and theoretical framework guiding the study. For each interview, the data were classified according to the relevant sectors within the tourism industry, and the factors were analysed based on their relevance to the different scopes of tourism businesses (Green et al., 2007; Bazeley, 2009). To enhance the validity of the analysis, the coding process was cross-checked by two independent researchers. The findings were interpreted in terms of key themes, with connections drawn between them and their corresponding sub-themes to present a complete view of the data. This approach ensures inclusive understanding of the factors impacting the tourism sector.

3.5 Inclusion and Exclusion Criteria

At the beginning of the present study, 43 people were contacted about participating. 16 of those who were contacted agreed to take part. The goal was to shorten the time it took to get responses because most of the participants were in senior positions and were generally busy with other responsibilities. The in-depth interviews with participants C, I, J, L, and O were not included in the research since all the themes and subthemes of 11 were covered in the interviews that followed. This is consistent with the concept of data saturation, which is the point where additional data no longer provide new or relevant insights (Guest et al., 2006). Therefore, no further interviews were conducted once data saturation was reached. The inclusion criteria

ensured that the participants were actively involved in the tourism industry, which was essential to the study's objective. The exclusion criteria focused on excluding participants whose contributions were redundant and did not provide additional value to the research after the key themes had been sufficiently explored.

3.6 Ethical Issues

In this study, ethical considerations were carefully addressed to ensure that the research adhered to all relevant ethical standards. Informed consent was obtained from all participants, ensuring they were fully aware of the study's objectives and how their data would be used. Additionally, participant confidentiality and anonymity were strictly maintained throughout the study. No personal information was disclosed, and all data was anonymised before analysis.

4 Results

The Table 3 provides a detailed examination of the factors influencing different sectors of the tourism industry based on the insights of participants. The study categorises the impact into four main factors: cost, security, hygiene rules, and food quality and assesses how these factors affect various tourism sectors including accommodation, adventure and recreation, attractions, events, food and beverage, tourism services, transportation, and travel trade.

4.1 Cost

The Accommodation sector was notably impacted by costs, as highlighted by Participant K, who stated, *'The pandemic caused a major decrease in bookings, and costs of implementing safety measures, like increased cleaning services, stressed our budget.'* This underscores how the pandemic led to a loss of business, which was exacerbated by the need for intensified hygiene measures. Additionally, the Events sector experienced significant challenges due to cost concerns. Participants A and B shared, *'With all educational facilities, including hostels, closed, students are staying at home. As a result, we lost our regular demand. Moreover, we had to allocate funds for newly required expenses like purchasing masks and hand sanitizers for events.'* This change brought to light the need

for event planners to adapt to the new social distancing realities and improved health regulations, which resulted in a reallocation of funds.

The Food and Beverage sector was impacted most extensively by cost-related factors, with participants D, E, F, G, H, M, N, and P commenting on this. Participant D explained, *'Suppliers raised prices for fresh produce, and we had to adjust our menu to cater to reduced budgets. This meant reducing portion sizes and exploring cheaper alternatives.'* Changes to the menu and portion sizes resulted from the industry's need to balance rising supplier prices with controlling consumer expectations. Participant H noted, *'With the increase in dining-in restrictions, our operational costs saw a significant rise. We were forced to invest heavily in delivery services and purchase additional packaging materials to meet the growing demand for take-out options. This shift in business operations further affected our financial resources, as we adjusted to new logistics and safety measures to ensure customer satisfaction and compliance with hygiene regulations.'* These changes demonstrate the pandemic's pervasive influence on consumer behaviour and service delivery, as well as how operational models were altered in response to cost pressure.

The Transportation sector also faced cost-related challenges. Participant D remarked, *'Ticket prices increased substantially, and many travelers began opting for trains instead of buses to save on fares.'* This shift reflects the impact of rising transportation costs on consumer behaviour, leading travellers to choose more affordable alternatives. Additionally, Participant E explained the difficulties encountered by the Travel Trade sector during the pandemic, stating, *'The cost of maintaining operations surged with the rise in travel restrictions and border closures. Higher operating costs, including sanitization procedures for our tour packages and additional administrative fees for handling cancellations and refunds, compelled us to change our pricing.'* So, consumer behaviour was impacted by rising transportation expenses, which made tourists seek for less expensive solutions.

4.2 Security

Security concerns were notably significant across various sectors of the tourism industry during the COVID-19 pandemic, with impacts felt particularly in accommodation, adventure and recreation, attractions, and food and beverage sectors.

In the Accommodation sector, Participant K emphasised that, *'We faced difficulties maintaining adequate*

security due to the reduced number of staff and the challenges posed by the pandemic. Many of our security personnel were ill or in quarantine, which led to lapses in security protocols.' This insight underlines the challenge of maintaining a secure environment during a public health crisis, where resources were stretched thin. In addition, Participant D added, *'Guests were increasingly anxious, and we had to implement additional measures such as health screenings and sanitation stations to ensure their sense of security.'* This was crucial in maintaining customer trust and encouraging them to continue using services during the pandemic.

The decreased number of visitors and general fear of transmission made security in the adventure and recreation industry even more of a concern. Participant P shared, *'Tourists were reluctant to engage in recreational activities because they feared overcrowding and potential exposure to the virus. We ensured that safety protocols were followed, but the general insecurity about the virus was overwhelming.'* This reluctance to engage in recreational activities reflected the broader uncertainty of the time, where people prioritised health over leisure, despite efforts to ensure safety. The fear of contracting the virus overshadowed the usual enjoyment associated with these activities, complicating efforts to restore normal tourism operations.

Similarly, in the Attractions sector, security measures became a concern. Participant N mentioned, *'We temporarily closed down several attractions due to safety concerns and implement contactless entry systems. The new security measures, although necessary, were costly, and we had to deal with the public's distrust about being in crowded places.'* These challenges were echoed by other participants who emphasised the need to enhance safety protocols, not just from a physical security perspective, but also in terms of perceived safety, especially with the risk of viral transmission.

The Food and Beverage sector faced significant security concerns, particularly around maintaining a safe dining experience. Participant H shared, *'we introduced additional security to monitor social distancing and ensure customers followed health regulations.'* Similarly, Participant K added, *'Stricter security measures were necessary to reassure both staff and customers, especially as people became more anxious about safety.'* The reason behind these heightened security measures was to foster customer confidence during a time of uncertainty. As dining out became a more anxiety-inducing activity due to the pandemic, businesses needed to ensure that both safety protocols and customer expectations were managed effectively. This not only helped restore order but also reassured guests, encouraging them to return despite their

concerns. However, these security measures added operational complexities and increased costs, which businesses had to manage carefully.

4.3 Hygiene Rules

Hygiene rules had a widespread impact across multiple sectors. In the Accommodation sector, participants B and H expressed the importance of adhering to hygiene standards. Participant B shared, *'We had to implement stricter cleaning protocols, focusing on high-touch areas like doorknobs, light switches, and elevators.'* This was essential to ensure guests felt safe and confident in their stay. However, it was about ensuring guests' peace of mind during uncertain times. Participant H added, *'We increased the frequency of cleaning services in guest rooms and public areas. We also made sanitation products available in all rooms to ensure that guests could keep their environment clean during their stay.'* The reason for this was to reduce the perceived risk of viral transmission within the hotel premises.

In the Adventure and Recreation and Attractions sectors, Participant P emphasised that *'increased cleaning of recreational equipment and public spaces was essential to alleviate concerns about potential virus spread among tourists.'* This was necessary to manage the health risks posed by shared equipment and crowded areas. The Events sector faced similar challenges, with Participant A noting the need for *'frequent sanitization and health screenings to reassure attendees.'* These measures made attendees feel safe in public spaces. Participant B added that *'events were scaled down, and hygiene protocols were rigorously followed to comply with safety requirements.'* This was crucial for maintaining a secure environment during large gatherings and reducing the risk of transmission.

The Food and Beverage sector encountered significant challenges related to hygiene standards. Participant D explained that *'contactless menus and additional sanitization efforts were introduced to maintain customer confidence.'* This was vital in reducing direct contact and preventing the spread of the virus between guests and staff. Participant F shared that *'regular cleaning of surfaces and other health measures were essential to ensure both staff and guest safety.'* This was required to adhere to public health guidelines while providing a secure dining experience. Participant G noted that *'limiting the number of guests and sanitizing seating areas between uses became an important measure to manage health risks.'* These actions were critical to maintain social distancing and

ensure a hygienic environment. Participant H highlighted that *'full protective gear for staff and strict sanitation practices were enforced.'* This was essential to foster a safe and hygienic environment for customers, alleviating their concerns about cleanliness.

With reduced income due to the lockdown, Participant M mentioned that businesses *'prioritized hygiene to stay operational.'* This was an important step to ensure continued service while safeguarding the health of both customers and employees. Participant N noted, *'to ensure safety, we made hand sanitizers readily available at all entry points, making it easier for visitors to maintain hygiene throughout their visit.'* These endeavours allowed customers to regularly sanitize their hands, reinforcing the business's commitment to safety.

In terms of Tourism Services sector, both participants F and K mentioned that *'implementing comprehensive safety protocols, including temperature checks and sanitation stations, was vital to ensure a smooth and secure experience for travelers.'* These protocols were necessary to ensure tourists felt secure during their travels and that their well-being was prioritised. For Transportation, Participant E explained that the *'need for continuous vehicle sanitization and social distancing, which limited passenger capacity, resulted in financial losses.'* While these measures were essential for passenger safety, they also significantly impacted the revenue potential of transport services during the pandemic.

4.4 Food Quality

Food Quality became a critical concern, particularly in the Adventure and Recreation and Food and Beverage sectors. In the Adventure and Recreation sector, participant G explained, *'to avoid health hazards, we needed to ensure that the food supplied on adventure tours fulfilled safety and freshness criteria.'* This was critical to improve the experience and ensure that visitors were safe while engaging in outdoor activities. Participant M stated, *'for our adventure tours, we focused on providing freshly prepared meals that adhered to strict hygiene standards. This not only ensured the health of our guests but also contributed to a more enjoyable experience during the trips.'* In order to guarantee that food safety and quality were given top priority during outdoor activities, this was required for both visitor happiness and safety.

During the pandemic, the food and beverage industry encountered numerous difficulties with regard to food quality. In spite of supply chain interruptions, *we required to make sure that food quality was preserved,* according

Table 3: Impact of Various Factors on Tourism Sectors during COVID-19

Factors	Participants											Related Tourism Sectors
	A	B	D	E	F	G	H	K	M	N	P	
Cost								*				Accommodation
												Adventure and recreation
												Attractions
	*	*										Events
			*	*	*	*	*		*	*	*	Food and beverage
												Tourism services
			*									Transportation
				*								Travel trade
			*					*				Accommodation
											*	Adventure and recreation
Security											*	Attractions
												Events
							*	*				Food and beverage
												Tourism services
												Transportation
												Travel trade
		*					*					Accommodation
											*	Adventure and recreation
											*	Attractions
												Events
Hygiene rules	*	*										Food and beverage
			*		*	*	*		*	*		Tourism services
					*			*				Transportation
				*								Travel trade
												Accommodation
												Adventure and recreation
												Attractions
												Events
												Food and beverage
												Tourism services
Food quality			*		*	*		*	*	*		Transportation
												Travel trade
												Accommodation
												Adventure and recreation
												Attractions

Source: Author's own development based on interviews

to participant D. Moreover, new consumer demands for packaged, safe-to-eat meals also required to adjust. Meeting consumer expectations for safe eating experiences as well as safety standards required doing this. Participant F and G discussed how they adjusted to new regulations by stating, 'We implemented additional quality control measures to ensure food safety while also complying with new hygiene requirements.' For the purpose to resolve food safety concerns and maintain consumer confidence, this was crucial.

Participant K remarked, 'we concentrated on maintaining food quality during transportation with the increased demand for takeout and delivery. The packaging needed to ensure that the food stayed fresh while also preventing contamination.' This shift in business operations required modifications to ensure that food quality was not compromised during delivery. Both Participants M and N emphasised, 'they collaborated with Food Panda and Food Shahi during the pandemic. Now, they use apps to manage their businesses. They noticed that customers

prefer single-use glasses and beverage cans.' This reflected a broader change in consumer behaviour, with customers prioritizing safety and hygiene over traditional dining experiences.

5 Discussion

Focusing on the impact of four critical factors—cost, security, hygiene rules, and food quality—across various sectors reveals the profound effects of the COVID-19 pandemic on Bangladesh's tourism industry. The findings highlight how these factors significantly influenced eight (8) sectors. These effects include increased operational costs in Accommodation, Events, Food and Beverage, Transportation, and Travel Trade sectors, primarily driven by decreased visitor numbers and the implementation of additional safety protocols. The rise in sanitation measures, like cleaning services and protective gear, put a strain on budgets, forcing businesses to spend more on health and safety regulations.

Intensified security concerns, particularly in the Accommodation, Adventure and Recreation, Attractions, and Food and Beverage sectors, were found to reduce tourist confidence. The challenges of maintaining adequate security, along with growing fears of virus transmission, led to the implementation of additional health screenings and social distancing measures. These efforts, while essential, contributed to a shift in consumer behaviour, with some sectors, like Food and Beverage, investing more in delivery services and contactless dining to address safety concerns.

Strict hygiene rules affected service delivery and customer behaviour across nearly all sectors, except Travel Trade. The comprehensive safety protocols, including sanitation stations, temperature checks, and other hygiene measures, were essential for maintaining traveller trust and complying with public health guidelines. However, these measures added financial strains and required significant operational adjustments, particularly for businesses in the Food and Beverage and Transportation sectors. Hygiene efforts, such as increased sanitization and protective gear, were crucial in addressing safety concerns and ensuring continued operations, despite the financial challenges.

Furthermore, food quality emerged as a critical priority, especially in the Adventure and Recreation and Food and Beverage sectors. Ensuring high-quality, safe meals was key for maintaining both customer satisfaction and safety. In Adventure and Recreation, this was particularly

important during outdoor tours, where fresh, well-prepared meals were necessary to ensure guest safety. In the Food and Beverage sector, businesses had to adjust menus, reduce portion sizes, and source more affordable ingredients to adapt to changing consumer expectations and rising costs. The increased reliance on food delivery services during the pandemic further emphasised the importance of maintaining food quality and safety, particularly in the delivery context, where packaging and hygiene played a crucial role in meeting customer demands.

The study's results are consistent with other research that show how the COVID-19 pandemic has put economic adversity on the tourism industry. For instance, Gössling et al. (2020) reported that the tourism industry faced severe financial difficulties due to lockdowns and travel restrictions, leading to reduced revenue and increased costs for implementing hygiene protocols. The pandemic caused a notable decline in tourist confidence due to security concerns. This is consistent with previous study by Wen et al. (2021), who found that the perception of safety and security is vital for tourism recovery during the pandemic. Shin and Kang (2020) indicated that hygiene protocols became a crucial factor for attracting and retaining customers, as visitors prioritised safety and cleanliness in the pandemic period. Moreover, Kim et al. (2021) demonstrated that the pandemic accelerated the adoption of digital platforms for food ordering and delivery, and maintaining food quality was essential for sustaining consumer trust and satisfaction.

From a managerial perspective, the study highlights several key strategies to mitigate the impacts of future crises on the tourism industry. Sectors like accommodations, events, food and beverage, transportation, and travel trade, which face high operational costs, should prioritise contingency planning and financial reserves. Addressing security concerns and restoring tourist confidence requires clear and transparent communication, along with rigorous safety measures. Enhanced hygiene protocols should be permanently integrated across all sectors, except for travel trade, with sufficient resources allocated to maintain cleanliness standards. Additionally, maintaining food quality through consistent quality control processes and reliable sourcing will be crucial. The increased shift towards digitalization, especially in the Adventure and Food and Beverage sectors, reflects a broader trend towards online platforms for business operations and customer engagement. From a social perspective, implementing these strategies not only improves the operational resilience of tourism businesses but also fosters greater tourist confidence, trust, and satisfaction.

This, in turn, contributes to the economic stability and growth of local communities in Bangladesh, ensuring the long-term sustainability of the tourism sector.

6 Conclusions

This study examined the impacts of the COVID-19 pandemic on the tourism industry in the Rajshahi district of Bangladesh, focusing on four critical factors: cost, security, hygiene rules, and food quality. The findings reveal how these factors directly influenced eight key sectors within the tourism industry. The study highlights the importance of strategic adjustments, such as contingency planning, strengthened security measures, consistent hygiene protocols, and the maintenance of high food standards. By adopting these measures, the tourism sector can build resilience and adaptability, ensuring sustainable growth and stability in the face of future challenges.

The insights provided in this study are valuable for policymakers, hotels, restaurants, transportation providers, and tourist destinations, offering guidance on formulating effective policies and business strategies. Furthermore, fostering collaboration among stakeholders is essential to leverage resources and expertise, which will enhance the industry's competitiveness and attractiveness. This collaborative approach is compulsory for ensuring long-term success and sustainability within the tourism sector. However, this study has several limitations. First, its focus on the Rajshahi district may not provide a comprehensive view of the tourism industry in Bangladesh as a whole. The findings may be limited in scope and may not fully capture regional variations in how the pandemic has affected tourism across the country. Second, other significant factors influencing the tourism industry may not have been addressed in this study. Third, the small sample size of respondents limits the generalizability of the results, and future research with a larger, more diverse sample is needed.

Additionally, the qualitative approach used in this study lacks the ability to quantify respondents' opinions, which would be beneficial for validation. Future research could consider adopting a mixed-methods approach, combining qualitative and quantitative data, to offer a more nuanced and comprehensive understanding of the factors affecting the tourism industry. Furthermore, exploring comparative case studies of different regions in Bangladesh, or even examining tourism sectors in other countries, could provide broader insights into the common challenges

faced by the global tourism industry during crises like the COVID-19 pandemic. Such comparisons would help validate the findings of this study and offer more actionable recommendations for the tourism industry worldwide. Future studies are expected to provide more precise, data-driven results and further explore the intricate dynamics of tourism recovery post-pandemic.

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Conflicts of Interest

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