

# EDGE: BU-CSE Digital Skills Training

“ Data-Driven Analysis of Tourist Attractions: Revenue, Accessibility, and Visitor Trends”



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## 0.1 Abstract

This project analyzes the tourism sector in Bangladesh by evaluating key data points from various tourist spots. Using insights from government revenue, visitor trends, accessibility, and development costs, the report identifies high-impact locations and areas for improvement. Findings reveal that Kuakata Beach generates the highest revenue, while winter and spring are the peak tourist seasons. Accessibility remains a priority, with most locations accommodating disabled visitors. However, discrepancies exist in revenue-to-cost ratios, suggesting optimized investment strategies are needed. To enhance tourism, recommendations include dynamic ticket pricing, strategic marketing, improved accessibility standards, and seasonal promotions. The report serves as a comprehensive guide for policymakers and stakeholders to drive sustainable growth in Bangladesh's tourism industry.

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## 0.2 Introduction

Tourism plays a vital role in Bangladesh's economy, contributing significantly to revenue generation and cultural exchange[1]. This report aims to provide a detailed analysis of various tourist destinations across the country, focusing on revenue trends, visitor statistics, accessibility, and seasonal impacts. By leveraging data from multiple sources, including government reports[3] and survey responses, this study identifies key attractions and evaluates their economic and social contributions. The objective of this report is to assess the effectiveness of the current tourism infrastructure, highlight areas for improvement, and propose strategic recommendations to enhance the visitor experience. By understanding patterns in tourism activities, authorities and stakeholders can optimize resources, promote sustainable tourism, and ensure long-term economic benefits. The findings presented here offer valuable insights for policy formulation and investment planning in Bangladesh's growing tourism sector.

## 0.3 Methodology

This study employs a combination of quantitative and qualitative research methods to analyze tourism data in Bangladesh. The methodology includes:

- Data Collection:
  - Primary data obtained from surveys, questionnaires, and government tourism reports.
  - Secondary data sourced from academic studies, tourism board records, and market analysis reports.
- Data Analysis:
  - Statistical methods applied to assess revenue trends, visitor demographics, and seasonal patterns[2].
  - Correlation analysis to determine relationships between ticket prices,

visitor numbers, and development costs.

- Comparative Analysis:
  - Benchmarking against regional and international tourism models[5].
  - Evaluating accessibility standards and promotional efforts in different divisions.
- Limitations:
  - Potential data gaps due to inconsistent record-keeping in some locations.
  - External factors, such as weather conditions and political stability, affect tourism trends.

## 0.4 Summary of Tourist Spots Data

The "Data Sheet" provides detailed information about several tourist spots in Bangladesh. Below is an overview:

- Key Attributes:
  - Locations: Spanning across Barishal, Dhaka, and the Chittagong Hill Tracts (CHT).
  - Categories: Historic monuments, markets, beaches, and cultural sites.
  - Ticket Prices: Range from free to a maximum of Tk 20.
  - Accessibility: Most spots are accessible for disabled visitors.
  - Peak Seasons: Winter and Spring dominate as the most favorable times for tourists.
- Revenue and Visitor:
  - Kuakata Beach generates the highest annual revenue of Tk 100,000,000 with 40,000 monthly visitors.
  - LalbLalbagh Fort and Jhulonto Bridge are prominent attractions with moderate revenue and visitor numbers.

- Development Costs:

- Vary from Tk 1,000,000 to Tk 50,000,000 annually.

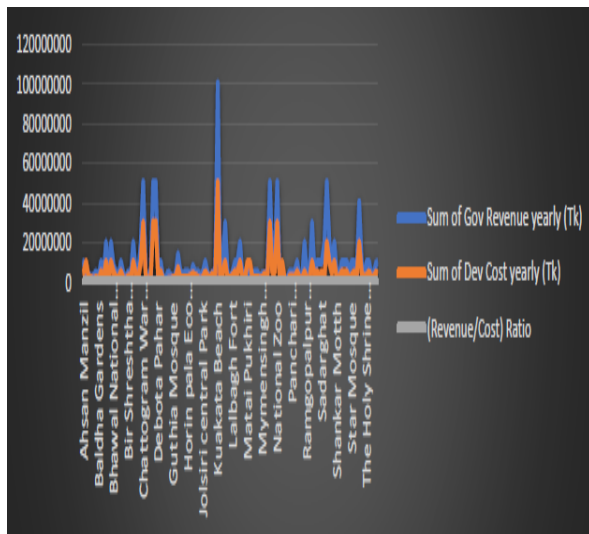


Figure 1: Ratio of Govt. Revenue and Dev. Cost yearly

## 0.5 Analysis from Question and Answer Sheets

### 0.5.1 Revenue Trends

- The top revenue-generating sites include:
  - Ahsan Manzil: Tk 10,000,000.
  - Kuakata Beach: Tk 100,000,000.
  - Government revenue varies significantly, indicating the economic potential of different types of spots [4]

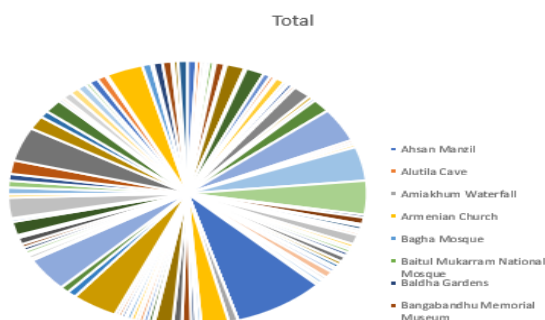


Figure 2: the percentage of contribution

### 0.5.2 Ticket Price Analysis

The average ticket price for tourist spots in Barishal is Tk 11.25.

- Many attractions are free, making them accessible to a broader audience.

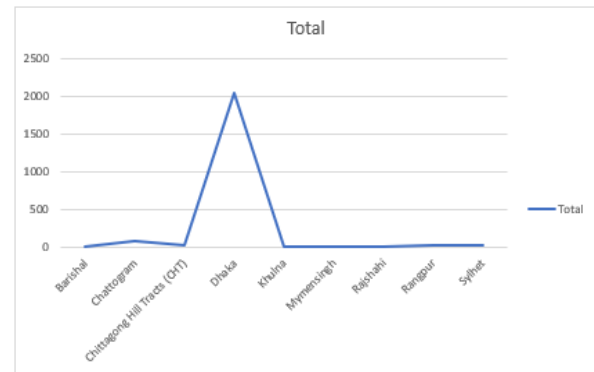


Figure 3: comparing ticket prices across locations

### 0.5.3 Visitor Statistics

- Monthly average visitors:
  - Winter attracts the most visitors (average: 83,074).
  - Sites such as Amtoli see smaller crowds (e.g., 1,500 visitors/month).
- A strong correlation exists between visitor numbers and government revenue.

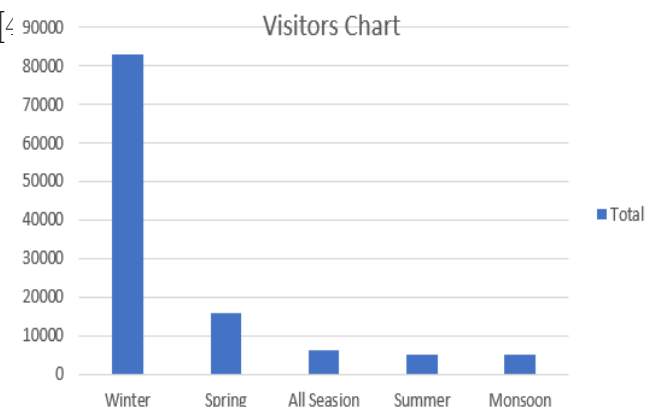


Figure 4: showing visitor trends by season

#### 0.5.4 Accessibility Insights

- Accessibility is a priority, with a majority of the spots catering to disabled visitors.
- Barishal alone has 22 accessible spots.

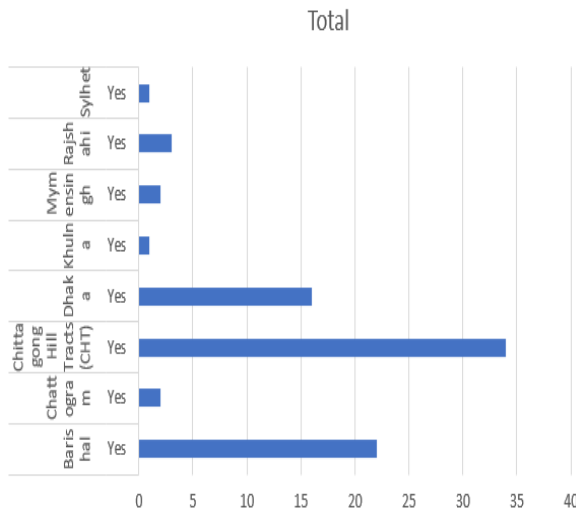


Figure 5: the count of accessible spots by division

#### 0.5.5 Correlation Analysis

- Between Ticket Price and Development Cost:
  - The correlation value of 0.04379 indicates an extremely weak or negligible linear relationship between development cost and ticket price. This suggests that the development cost of a tourist attraction does not have a significant direct influence on its ticket price.
- Comparison Between Govt. Revenue and Development Cost:
  - A ratio greater than 1 means revenue exceeds cost; less than 1 means revenue is lower than cost.
  - The strong correlation ( $R=0.9577$ ) suggests that continued investment in tourism infrastructure may further increase government revenue.

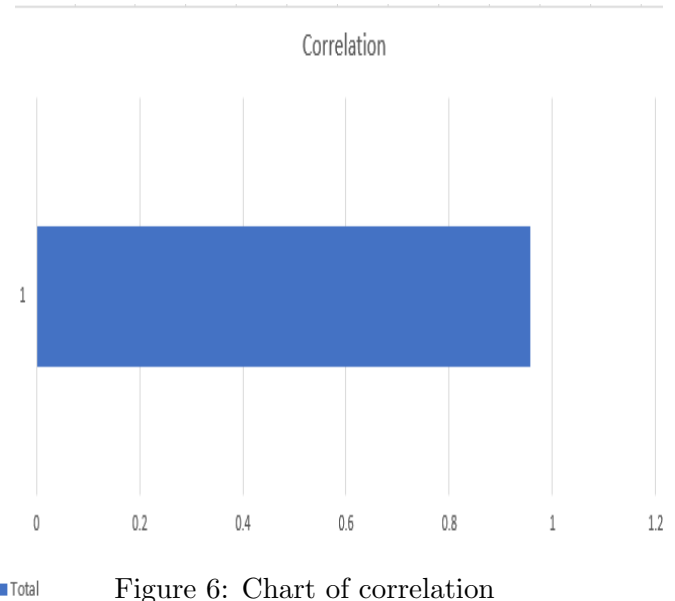


Figure 6: Chart of correlation

## 0.6 Challenges

- Infrastructure Limitations: Many tourist spots lack modern facilities, such as proper roads, accommodations, and sanitation facilities.
- Environmental Concerns: Unregulated tourism can lead to pollution, habitat destruction, and waste management issues.
- Seasonal Dependency: Tourism in Bangladesh is highly seasonal, with winter and spring seeing the highest footfall, leading to revenue fluctuations.
- Lack of Promotion: Many potential attractions remain under-promoted, reducing visitor engagement.
- Security and Safety: Some remote tourist spots face security challenges, which can deter visitors.
- Funding Constraints: Limited budget allocations for maintenance and development slow down the enhancement of tourism infrastructure.

## 0.7 Recommendations

- Enhancing Revenue:
  - Introduce dynamic ticket pricing for high-demand seasons.
  - Leverage partnerships with the private sector for promotional campaigns.
- Improving Accessibility:
  - Ensure uniform standards of accessibility across all divisions.
  - Develop mobile applications for easier navigation and information.
- Promoting Seasonal Tourism:
  - Offer discounts and special packages during less busy seasons.

## 0.8 Conclusion

Bangladesh's diverse tourist attractions offer significant cultural, natural, and economic value. Strategic improvements in revenue management, accessibility, and promotional efforts can further elevate the tourism sector. This report serves as a foundation for informed decision-making to foster sustainable growth.

## 0.9 Appendices

- Detailed data tables and charts from the "Data Sheet" and Q and A analysis.
- Graphical trends on revenue, visitors, and seasonal impacts (if applicable).

# Bibliography

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