Bangladesh Journal of Public Administration (BJPA), Bangladesh Public Administration Training Centre
31(2): 23-44, 2024
ISSN: 1563-5023 (print), 2664-4622 (online) http://journals.bpatc.gov.bd/index.php/bjpa
DoI: https://doi.org/10.36609/bjpa.v32i1.1137

International Tourist Arrivals, Foreign Exchange Earnings, and Barriers to Inbound Tourism in Bangladesh

Anup Kumar Talukder[1]
Soma Bhattacharjee[2]

ABSTRACT

This research aims to examine the Long-Run (LR) and Short-Run (SR) impacts of foreign exchange earnings (FEE) from international tourists' arrival in Bangladesh and identifies the barriers to inbound tourism so that the government can take the appropriate development plans or programmes for inbound tourism. This study is carried out using secondary as well as primary data and by deploying mixed methods. For qualitative data, a Key Informant Interview (KII) is deployed. This study's quantitative method relies on econometric analysis. It includes the Augmented Dickey-Fuller (ADF) unit root test, the Johansen cointegration test, and the Vector Error Correction Model (VECM) using yearly data ranging from the period 1995 to 2019. According to the cointegration and causality test results, there is no SR causal relationship between FEE and the number of tourist arrivals. However, an LR causal relationship exists not only between the earnings from foreign exchange and tourist arrivals numbers but also with the earnings from foreign exchange and capital investment in travel and tourism and earnings from foreign exchange and government spending on travel and tourism services. The qualitative data show that poor infrastructure and security of tourist destinations, lack of visa facilitation, high accommodation costs and unprofessional inbound tour operators are the major barriers to inbound tourism in Bangladesh. The results of the study will provide the Bangladeshi government with valuable information for crafting improved tourism policies that would benefit the nation's economy.

Keywords: Unit Root Test, Granger Causality Test, Johansen Cointegration Test, Tourism, Vector Error Correction Model, Foreign Exchange Earning

[1] Joint Secretary (Corresponding Author), Ministry of Civil Aviation and Tourism, Government of the People's Republic of Bangladesh, Email: anup.ac.22@gmail.com

[2] Associate Professor, Department of Economics, Jagannath University, Email: soma@eco.jnu.ac.bd

INTRODUCTION

Tourism, as a significant contributor to the global economy, is one of many developing countries' primary sources of foreign exchange. Generally, international tourists spend money on travel, lodging, meals, and other products and services while they are visiting a country. This spending generates FEE for the country, as the money is exchanged for local currency. There are three ways in which a rise in international tourist arrivals can boost FEE. First, more tourists mean more spending, which can result in a rise in the total amount of foreign exchange earned by tourism. Second, a rise in tourist arrivals can lead to a rise in tourism-related employment, which can also contribute to foreign exchange earnings. Third, More tourists can result in increased investment in the tourism industry, which can also contribute to foreign exchange earned by tourism.

Economists started considering tourism as a field deserving of scholarly study in the late 1970s for its contribution to foreign exchange earnings, especially for developing countries. Tourism as a factor in the progressing economy of developing countries had given importance at that time and Case studies and small-scale studies started to appear, connecting tourism as a major determinant for national and regional development (Seesa 1970; Turner 1976; Wood 1979). In this context, tourism is seen as an export of non-factor services (NFS), which refer to the export of services that do not involve the physical movement of goods. Tourism is a service that is provided to consumers in the form of accommodation, transportation, food, and entertainment, rather than a tangible good. These services are provided to tourists who travel to a country for leisure or business purposes and the money they spend on tourism-related services generates FEE for the country.

These travellers' expenses are listed as an inflow item that is categorised as export in the balance of payment's current account section (Radić 2019). For that reason, the international tourist activities within the host country, which is defined by the UN as 'Inbound Tourism' (2010) are vital to many developing nations, including Bangladesh.

Bangladesh is endowed with an abundance of historical and natural tourist destinations, such as the longest natural beach and biggest mangrove forest in the world. However, the tourism sector has not flourished despite having huge tourism potential and international tourist arrivals relatively small compared with other neighbouring countries. The international tourist inflow for the period of 1995 to 2019 is shown in the graph below.

Figure 1: International tourist arrival in Bangladesh from 1995-2019

Source: World Development Indicators (WDI), 2023

From Figure 1, it is evident that international tourist arrivals never crossed five hundred thousand. This illustrates the direct impact of tourism on Bangladesh's Gross Domestic Product (GDP). According to Bangladesh's Tourism Satellite Account of 2020, the direct contribution of tourism to GDP for the 2018–19 fiscal year was a mere 3.08 per cent (BBS 2021). The World Travel and Tourism Council (WTTC) estimated that tourism contributed 2.9% and 2.3% of Bangladesh's overall employment in 2019 and 2020, respectively, with international tourists spending BDT 30.3 billion and BDT 12.2 billion (WTTC 2021). Thus, just 0.7% of Bangladesh's total exports are impacted by foreign tourists (General Economics Division 2020a).

The 8th five-year plan (2021-2025) identified seven pivotal themes for the pro-poor inclusive growth strategy and that includes pushing exports NFS in Bangladesh (General Economics Division 2020a, p.46). Bangladesh's exports are heavily dependent on the ready-made garments (RMG) sector and non-RMG exports have not prospered to expectation which constrained export diversification and slowed down job creation. Therefore, the 8th five-year plan encourages a robust and diverse export base that is concentrated on both goods and NFS for maintaining strong performance in the balance of payments (ibid). The tourism industry makes for a very small portion of export revenue as NFS. In the private sector, transportation accounts for 15% of service exports as NFS, followed by telecoms and ICT (14%), business services (13%), and tourism (5%) (General Economics Division 2020a). Despite the government's vision to catch up bigger market share for tourism as NFS, international tourist spending is relatively low in Bangladesh compared with other South Asian neighbours (General Economics Division 2020a). Again, tourism's direct contribution to GDP has also hovered around two to three per cent in Bangladesh for a long period.

In recent times, although domestic tourism has increased, its direct GDP contribution has not increased. Bangladesh fixed the target of five per cent of Tourism's direct contribution to GDP by 2030 to meet the SDGs indicator number 8.9.1. A fair contribution from inbound tourism could help the country to achieve its target.

Recognizing the significance of the tourism industry, an expanding body of literature has examined how this industry has contributed to Bangladesh's overall economic development. (Mahboob & Parvin 2010; Das and Chakraborty 2012; Hassan, Ullah & Chowdhury 2013; Aktar et al. 2014; Sultana 2016; Hafsa 2020; Hossain & Wadood 2020). However, these studies did not use time-series data to investigate the causal links between international tourists' arrival and earnings of foreign exchange from Bangladesh except Aktar et al. (2014). This study expands on earlier findings of Aktar et al. (2014) which overlooked incorporating the major determinants of foreign exchange earnings such as capital investment in travel and tourism and government spending on travel and tourism services. This study also uses a long span of data and unique econometric methodology (VECM) to investigate the causal relationship between the number of foreign tourists coming to Bangladesh and foreign exchange earnings. Therefore, this study is significant because it focuses on the SR and LR impact of foreign exchange revenues from the arrival of international tourists in Bangladesh. This study also examines the barriers to inbound tourism by using qualitative methods. The result of qualitative data will be used for triangulating quantitative data of this study and findings will contribute directly to the government's future policy and programme formulation for inbound tourism.

Therefore, the overarching objective of this study is to identify the causal relationship between the number of foreign tourists coming to Bangladesh and foreign exchange revenues as well as the factors that influence inbound tourism to Bangladesh. The following are the study's particular objectives:

a) to investigate both the SR and the LR causal relationship between the number of international tourists arriving in Bangladesh and FEE; and

b) to inquire about the major obstacles of inbound tourism in Bangladesh;

REVIEW OF RELATED LITERATURE

The issue of causal links between inbound tourism and FEE has lately given rise to a very limited body of work that demonstrates the LR link using cointegration and causality analyses. Different estimation approaches are employed for the national and regional levels of these studies. They use both univariate and multivariate econometrics techniques, such as input-output models, social accounting matrices, general equilibrium models, the Johansen cointegration approach, autoregressive distributed lag (ARDL) approach, Granger causality, and the Toda-Yamamoto approach to Granger

non-causality, with a variety of data sets, including time series, cross-section, and panel data (Havi &Inu 2013; Dhakal 2016; Sagar & Retheesh 2020; Sharma et al. 2022).

Ghana's economic performance as it relates to tourism was examined by Havi and Inu (2013). This research investigated the association between tourism and Ghana's economic performance using Johansen's cointegration approach. First-order integrated variables included the nominal GDP per capita, domestic tourism per capita, and foreign tourism per capita were all found in this study. The Johansen cointegration test results demonstrated only SR relationships between any of the variables under investigation. The study found that prior foreign tourism had a positive and elastic influence on the nominal GDP per capita. A one-way association between nominal GDP per capita, domestic tourism, and both domestic and foreign tourism was also shown by the Granger Causality test.

Dhakal (2016) used causality analysis and co-integration to examine Nepal's tourism-related foreign exchange revenue. He discovered an LR correlation among the number of international tourists, the average length of stay, and the amount of foreign exchange produced from tourism. The Granger causality analysis's findings show that there is a single-directional relationship between the volume of foreign visitors and the amount of foreign currency earned from tourism as well as between the average duration of stay and foreign currency profits.

A study on FEE was carried out by Sagar and Retheesh (2020), with particular reference to the arrival of inbound tourists in India. This study looked into whether the country's FEE is significantly increased by the tourism sector. To test the hypothesis, regression analysis and correlation were employed. The regression test results found the relationship between the variables which conformed to the correlation test.

For India, Sharma et al. (2022) investigated the macroeconomic drivers of tourist arrivals. Using a newly developed nonlinear ARDL model, the paper investigated the asymmetric link between the exchange rate and global income with the demand for foreign tourism to India. From January 2003 to December 2020, the study employed monthly data on inbound tourism demand, real effective exchange rate, and global income as model variables. The investigation used an asymmetric causality test similar to the Hatemi-J method. The results supported the existence of an LR, a nonlinear link between the exchange rate and tourism demand.

In the case of Bangladesh, over the past ten years, the tourism sector has attracted a lot of interest, resulting in the development of a significant body of literature in the field of tourism studies. (Mahboob and Parvin 2010; Das and Chakraborty 2012; Hassan, Ullah and Chowdhury 2013; Aktar et al. 2014; Sultana 2016; Hafsa 2020; Hossain and Wadood 2020). These studies mainly concentrated on the descriptions of the tourism sector, popular tourist destinations, issues facing this industry, potential

solutions, data on various travel and tourism-related issues and their graphical representation, t-test, and other elements influencing the tourist sector's economic growth. However, the causal link between FEE and the arrival of international tourists in Bangladesh is not examined in these studies. Therefore, there is a clear research gap for conducting a study in this area.

Some studies in Bangladesh also examined the impediments of inbound tourism in Bangladesh mostly with qualitative data analysis (Kobra et al. 2018, Roy and Roy 2015; Rahman 2021). Roy and Roy (2015) found Bangladesh's current tourism policy outdated compared to the world tourism market and insufficient private investment is the major barrier to inbound tourism whereas Kobra et al. (2018) found that deficiency and lack of coordination between the service providers and relevant agencies was the major constraint of inbound tourism.

Rahman (2021) in his study discovered that natural and cultural resources, as well as tourism and airport infrastructure, were the major disadvantaged pillars of inbound tourism. He also found that affordable and comfortable lodging or transits were not provided to international tourists and tourism-related activities and entertainment components were not diverse enough. Booking and financial transactions for travel are not easily accessible or generally available online. He urged to formulate a comprehensive national tourism policy accomplishing sustainable development objectives and creating a hub for tourism in the region that incorporates Nepal and Bhutan.

RESEARCH METHODOLOGY

To accomplish its objectives, this study uses a combination of mixed methodologies or quantitative and qualitative research techniques. For this study, the results drawn from the quantitative analysis are triangulated with those from the qualitative investigation.

Data

This study employs secondary data for quantitative methods and uses yearly time-series data ranging from 1995 to 2019. The World Bank's (WB) WID data and Open Trade and Competitiveness (OTC) data are used to compile the data. Table 1 shows the name and definition of the data.

Table 1: Variable Information

Abbreviation	Name of the variable	Unit	Source
FEE	FEE (visitor exports (foreign spending)	US$ in billion (Real prices)	WB, OTC Data were taken from WTTC Data (2023)
CITT	Capital investment in travel and tourism	US$ in billion (Real prices)	BB, OTC Data were taken from WTTC Data (2023)
GSTT	Government spending on travel and tourism service	US$ in billion (Real prices)	WB, OTC Data were taken from WTTC Data (2023)
LITA	Log of international tourism, number of arrivals	Number	WDI (2023)

Estimation Techniques

The following model is specified to investigate the relationship between FEE from international tourists arriving in Bangladesh:

$FEEt = \beta 0 + \beta 1 (LITA) + \beta 2 (GSTTt) + \beta 3 (CITTt) + ut$ ……(1)

Where,

FEEt represents foreign exchange earnings;

LITAt represents log of international tourist arrivals in Bangladesh;

GSTTt represents government spending on travel and tourism services;

CITTt represents a capital investment in travel and tourism; and

β0, β1, β2, and β3 represent coefficients and ut represents the error term.

First, the stationarity of the data is tested in this study by using the ADF test. Then first differencing of the variables is necessary to make them stationary if they are not. Second, the Johansen cointegration test is performed to examine the association between the variables. According to Maddala and Kim (2004), causation exists between the variables if they are cointegrated. It is possible to say that two variables have an LR relationship when they are cointegrated (Gujarati 2004). Granger (1988) shows that there is at least one direction of causality among the variables when cointegration is present.

To test the association and causality between FEE and international tourists' arrival, this study uses the VECM. If the variables are cointegrated, then VECM can be applied. Given the four variables, four distinct estimate equations with four error correction factors or long-run adjustment factors should be shown in the VECM results. In actuality, the VECM provides adjustment elements in addition to SR and LR relationship results. The following four equations will be used to perform the VECM of this study:

$$\Delta FEE_t = \emptyset_1 + \sum_{k=1}^{p} \gamma_{11} \Delta FEE_{t-1} + \sum_{k=1}^{p} \delta_{12} \Delta CITT_{t-1} + \sum_{k=1}^{p} \vartheta_{13} \Delta GSTT_{t-1} + \sum_{k=1}^{p} \sigma_{14} \Delta LITA_{t-1} + \partial_1 ECT_{t-1} + u_t \quad (2)$$

$$\Delta CITT_t = \emptyset_2 + \sum_{k=1}^{p} \gamma_{21} \Delta CITT_{t-1} + \sum_{k=1}^{p} \delta_{22} \Delta FEE_{t-1} + \sum_{k=1}^{p} \vartheta_{23} \Delta GSTT_{t-1} + \sum_{k=1}^{p} \sigma_{24} \Delta LITA_{t-1} + \partial_2 ECT_{t-1} + u_t \quad (3)$$

$$\Delta GSTT_t = \emptyset_3 + \sum_{k=1}^{p} \gamma_{31} \Delta GSTT_{t-1} + \sum_{k=1}^{p} \delta_{32} \Delta FEE_{t-1} + \sum_{k=1}^{p} \vartheta_{33} \Delta CITT_{t-1} + \sum_{k=1}^{p} \sigma_{34} \Delta LITA_{t-1} + \partial_3 ECT_{t-1} + u_t \quad (4)$$

$$\Delta LITA_t = \emptyset_4 + \sum_{k=1}^{p} \gamma_{41} \Delta ITA_{t-1} + \sum_{k=1}^{p} \delta_{42} \Delta FEE_{t-1} + \sum_{k=1}^{p} \vartheta_{43} \Delta GSTT_{t-1} + \sum_{k=1}^{p} \sigma_{44} \Delta GSTT_{t-1} + \partial_4 ECT_{t-1} + u_t \quad (5)$$

Here, p is the largest lag length used, ECT indicates the error correction term and the adjustment coefficient, denoted by ∂i, represents the weight of prior adjusted disequilibrium. A long-term link between the variables necessitates a statistically significant coefficient of ∂i.

Finally, several econometric tests, including heteroscedasticity, serial correlation, and normality, should be performed before using model estimates for economic analysis. All of these econometric tests are performed in this study to ensure that the model has the appropriate econometric features. All econometric analyses in this study were performed using EViews software.

To determine the major obstacles to inbound tourism, a Key Informant Interview (KII) was used to gather primary data. Before the meeting, a loosely structured checklist with a list of the topics to be covered was created. During the KIIs, information and ideas were freely exchanged. The data was then gathered and classified into three major categories and factors.

FINDINGS AND DISCUSSION

The quantitative data analysis with the discussion presented first followed by the qualitative data analysis because the qualitative data used in this study triangulate the quantitative data.

The Test of Stationarity/Unit Root Test

Estimating the time series models begins with a test of the variables' stationarity. If the

variables are not stationary, it is crucial to take the appropriate differences in the series to make them stationary (Gujarati 2004). In this study, the stationarity of the data is examined using the ADF test. The series having a unit root is the null hypothesis for the test, whereas the series having not a unit root is the alternative hypothesis.

Table 2: Unit Root Test

	ADF		
Variable	Levels	1st differences	Order of Integration
FEE	-0.2332	-0.9800***	I(1)
CITT	-0.2299	-0.9811***	I(1)
GSTT	-0.2399	-1.9168***	I(1)
LITA	-0.3287	-0.9044***	I(1)

Note: *** denotes significance at the 1% level.
Source: Authors' calculations

Table 2's findings demonstrate that every variable is integrated in order one (I(1)). Thus to identify the number of co-integrating relationships among the variables the Johansen Co-integration test will be done. To do the test it is necessary to find out the optimum lag order.

Lag Order Selection

Table 3: Lag Order Selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	143.4802	NA	1.05e-10	-11.62335	-11.42701	-11.57126
1	204.9123	97.26757*	2.45e-12*	-15.40936*	-14.42765*	-15.14891*

* denotes lag order selected by the criterion. LR: sequential modified LR test statistic (each test at 5% level), FPE: Final prediction error, AIC: Akaike information criterion, SC: Schwarz information criterion, HQ: Hannan-Quinn information criterion.

Source: Authors' calculations

The optimum lag order is 1 because all the criterion (LR, FPE, AIC, SC, HQ) of lag order selection shows that 1 is the selected lag.

Johansen Co-integration Test

Table 4: Results of Johansen Co-integration Test

Estimates from Trace Test Statistics				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Probability**
None *	0.7348	56.3027	47.8561	0.0066
At most 1	0.5725	25.7776	29.7971	0.1355
At most 2	0.1683	6.2315	15.4947	0.6682
At most 3	0.0831	1.9942	3.8415	0.1579
Notes: * (at least one cointegrating equation), ** (significant at 5% level). CE denotes the Cointegrating Equation.				
Estimates from Maximum Eigenvalue Statistics				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Probability**
None *	0.7348	30.5252	27.5843	0.0203
At most 1	0.5725	19.5460	21.1316	0.0821
At most 2	0.1683	4.2373	14.2646	0.8335
At most 3	0.0831	1.9942	3.8415	0.1579
Notes: Maximum Eigenvalue test indicates 1 cointegrating equation(s) at the 0.05 level. * (at least one cointegrating equation), ** (significant at 5% level).				

Source: Authors' calculations

The aforementioned finding suggests that FEE, CITT, GSTT, and LITA have an LR connection. This is due to the fact that at least one co-integrating relation is shown by the Trace and Max-Eigen-value statistics.

Vector Error Correction Model

Table 5: Vector Error Correction Estimates

Variables	D(FEE)	D(CITT)	D(GSTT)	D(LITA)
Constant	0.004984	0.031219	0.001594	0.030559
	(0.00570)	(0.02106)	(0.00092)	(0.07294)
D(FEE(-1))	0.248041	0.313938	-0.056599	-2.771941
	(0.24478)	(0.90453)	(0.03938)	(3.13255)
D(CITT(-1))	-0.026964	-0.074816	0.0203*	-0.388486
	(0.06194)	(0.22888)	(0.00996)	(0.79264)
D(GSTT(-1))	2.171089	4.121186	-0.062595	23.37114
	(1.42382)	(5.26127)	(0.22905)	(18.2208)
D(LITA(-1))	0.004011	0.1568**	-0.000549	0.278093
	(0.01859)	(0.06869)	(0.00299)	(0.23790)
Error correction terms	-0.4723*	0.0242	0.0983**	5.6704*
	(0.24722)	(0.91352)	(0.03977)	(3.16369)

Note: Standard errors are represented by the values included in parenthesis, whereas coefficients are shown outside of them. ** and * denote that coefficients are significant at the 5% and 10% levels respectively.

Source: Authors' calculations

To determine the rate of adjustment in LR relationships, VEC estimates have been used. Moreover, this model is also used to present SR relationships. According to the outcome of the first column in Table 5, the error correction term (ECT) is -0.472268 with a standard error of 0.24722, which is statistically significant at 10% for equation (2) which is our main interest equation. As the ECT is negative and significant, it can be said that there is an LR causality running from CITT, GSTT, and LITA to FEE. The result supports the existence of an LR relationship running from CITT, GSTT, and LITA to FEE. There is no SR causality running from CITT, GSTT, and LITA to FEE. The result of the second column of Table 5 depicts that there is no LR causality running from, FEE, GSTT, and LITA to CITT because the value of ECT is 0.0242 which is statistically insignificant. In that case, there is only one SR causality running from LITA to CITT. The result of the

third column of Table 5 depicts the existence of LR causality running from, FEE, CITT, and LITA to GSTT because the value of ECT is 0.0983 Which is statistically significant at a 5% level. Here, there is an SR causality running from CITT to GSTT. The result of the fourth column supports the existence of an LR relationship running from CITT, GSTT, and FEE to LITA because of the existence of a significant ETC value (5.6704). However, in that case, there is no SR causality running from CITT, GSTT, and FEE to LITA.

Diagnostic Testing

Table 6 displays the results of several diagnostic tests. This study employs the Breusch-Pagan-Godfrey test and the Breusch-Godfrey Serial Correlation LM Test, respectively, to assess the heteroscedasticity and serial correlation of the residuals. These tests' P-values are greater than 5 per cent, indicating that the model is free of serial correlation issues and heteroscedasticity. The Jarque-Bera test is used in this study to test normality. The Jarque-Bera tests' P-value is greater than 5 per cent also, indicating that the residual has a normal distribution.

Table 6: Diagnostic Testing

Test	F-Statistics/Jarque-Bera	Obs*R^2	Probability
Heteroskedasticity Test	3.214139	14.89185	0.0613
Serial Correlation	1.151936	1.544696	0.2139
Normality	0.706393	-	0.4673

Source: Authors' calculations

Key Informant's Perception of Barriers to Inbound Tourism

In this phase of the study, the findings from qualitative data are analyzed. Seven important sources in total, including three from the Ministry of Civil Aviation and Tourism, two from the Bangladesh Tourism Board and two specialists from the private sector who used to conduct inbound tourism in Bangladesh. The public officials are all postgraduate degree holders whereas two specialists from the private sector only completed their bachelor's degree. The age of key informants ranged from thirty-eight to fifty-seven years. Both the key informants from the private sector have more than twenty years of experience in their tour operator business.

At the outset, it is important to state that all key informants stated that without a significant increase in inbound tourism, the Bangladesh government could not achieve the target for indicator 8.9.1 of the SDGs, that five per cent tourism direct GDP as a proportion of total GDP by 2030. The overall responses of the key informants are as follows:

a) lack of actual data about tourists;

b) lack of quality infrastructure in most of the tourist destinations;
c) lack of security in most tourist destinations;
d) Poor sanitation and hygiene in most of the tourist destinations;
e) archaeological sites are not connected with other tourist sites;
f) bureaucratic complexity in ocean tourism;
g) the complication in issuing visas for tourists;
h) absence of an e-visa system for tourists;
i) high accommodation cost;
j) poor support from other tourism stakeholders like hotels, transport etc.;
k) inbound tour packages offered by the tour operators are not attractive;
l) high tax rate of receiving package cost;
m) low conversion rate through proper banking channels;
n) tour operators are active online like website and social media promotions;
o) poor emphasis on package promotion;
p) lack of skilled and multilingual tour guides with the tour operators;
q) weak in building a network with the neighbouring country;

The key informants' above-mentioned responses are categorized and discussed below.

Faulty International Tourist Data and Poor Infrastructure and Security of Tourist Destinations

In their interview, all the key informants expressed their frustration with actual tourist numbers. In Bangladesh, international tourist data is usually gathered through the Department of Immigration & Passports under the Ministry of Home Affairs. All of the key informants opined that the international tourist arrival data in Bangladesh is faulty because it covers all the foreigners entering the country with whatever reasons they possess. However, the authors found that the UN defined the term 'tourist' liberally. As per the United Nations, a traveller, whether domestic, inbound or outgoing, is categorized as a tourist (or overnight visitor) if their trip involves an overnight stay, and as a same-day visitor (or excursionist) if not (UN 2010). Now, it could be assumed that there might be little or no chance for visitors coming from international destinations would go back to another international destination on the same day. Therefore, as per the definition of 'tourist' by the UN, the data of the actual number of international tourist arrivals collected from the Department of Immigration & Passports tend to be accurate.

Next, most of the key informants expressed that all of the tourist destinations

of our country are yet to be ready for international tourists and most of them are yet to be ready for domestic tourists also. They identified an absence of necessary infrastructure including communications are one of the major barriers to inbound tourism. They opined that Bangladesh lacked the necessary infrastructure to support tourism, such as well-developed transportation networks, accommodation facilities, and tourist-friendly amenities. This makes it difficult for tourists to navigate the country and find suitable places to stay. Again, they gave their opinion that Bangladesh had a poor sanitation infrastructure and inadequate public health facilities, which could make tourists feel uncomfortable and discourage them from visiting the country. Moreover, the security of most of the tourist destinations is not up to the mark, which makes tourists feel unsafe. However, they praised some popular tourist attractions like Cox's Bazar for the security measures taken by the Tourist Police.

One of the key informants expressed her dissatisfaction over the connection of archaeological sites with other tourist sites. The inbound tour operators are not interested in mixing two or more categories of tourist attractions. As a result, in her opinion, inbound tourists are not interested to come into Bangladesh.

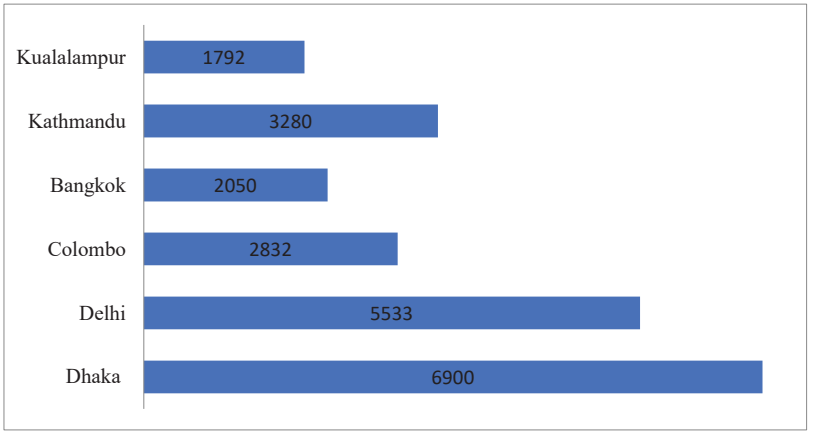
Most of the key informants also gave the example of an ocean cruise ship which came to Bangladesh's shore from the Indian Ocean a few years back. That ship needs permission from many ministries and departments and 'wasted' valuable time for that permission. Till then no ocean cruise ship came to Bangladesh. However, Bangladesh has no specialized jetty for ocean cruise ships. Therefore, those key informants firmly gave their opinion that bureaucratic complexity as well as an absence of necessary infrastructure prevents Bangladesh from earning foreign exchange from very promising ocean cruise tourism or a blue economy.

Lack of Visa Facilitation and High Accommodation Cost

In their interview, all informants expressed their dissatisfaction over the process of obtaining a visa to visit Bangladesh. They opined that obtaining a visa was cumbersome and time-consuming, even an arrival visa, which discouraged tourists from visiting the country. They thought introducing e-visas would improve the visa facilitation situation.

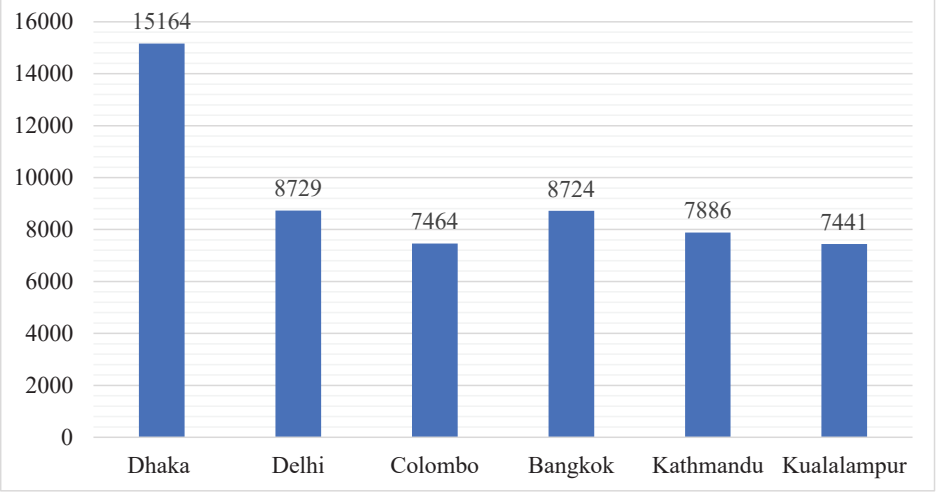
High accommodation cost is another important barrier that was identified by the key informants. The accommodation cost is relatively very high in Bangladesh compared with neighbouring countries. The Bangladesh Tourism Board recently compared the average accommodation cost of single night stay of three-star and five-star hotels and one of the key informants of that organization gave that comparison to the authors which is presented in Figure 2 and Figure 3 below.

Figure 2: Comparison of average accommodation cost in Bangladeshi Taka for three-star hotels in six Asian cities



Source: Bangladesh Tourism Board

Figure 3: Comparison of average accommodation cost for five-star hotels in six cities



Source: Bangladesh Tourism Board

Immature and Unprofessional Inbound Tour Operators

Most of the key informants gave the information that a very small number of tour operators were working for inbound tourism. Therefore, they usually lack experience in inbound tourism. Their inbound tour packages are not usually attractive enough to draw

the attention of foreign tourists. They are also not active on their website or social media. Hence, their inbound tour packages are not well promoted. Besides, they have weak networks with the neighbouring country's tour operators, and, hence, they failed to develop a tour package with them, which the key informants thought was a good chance to attract foreign tourists to Bangladesh. The tour operators also lacked skilled tour guides, who have proficiency in languages other than their mother tongue.

Triangulation of results of qualitative and quantitative data analysis

The following table shows the triangulation of results that came out from the quantitative and qualitative data analysis of this study.

Table 7: Triangulation of results of qualitative and quantitative data analysis

Serial No.	Subject Matter	Quantitative data analysis results	Triangulation of results of quantitative data analysis with results of qualitative data analysis
1.	An SR causal relationship between the number of international tourists arriving in Bangladesh and FEE from inbound tourism	No SR causal relationship exists between the number of international tourists arriving in Bangladesh and foreign exchange earnings	Key informants identified that poor infrastructure and security of tourist destinations, lack of visa facilitation high accommodation costs and immature and unprofessional inbound tour operators are the major barriers to inbound tourism in Bangladesh. These are the reasons behind the small number of international tourists in Bangladesh. Therefore, the results of qualitative data analysis triangulate the results of qualitative data analysis.
2.	An LR causal relationship between the number of international tourists arriving in Bangladesh and FEE from inbound tourism	No LR causal relationship exists between the number of international tourists arriving in Bangladesh and foreign exchange earnings	Key informants identified that poor infrastructure and security of tourist destinations, lack of visa facilitation high accommodation costs and immature and unprofessional inbound tour operators are the major barriers to inbound tourism in Bangladesh. These are the reasons behind the small number of international tourists in Bangladesh. Therefore, the results of qualitative data analysis triangulate the results of qualitative data analysis.

Serial No.	Subject Matter	Quantitative data analysis results	Triangulation of results of quantitative data analysis with results of qualitative data analysis
3.	LR causality between capital investment in travel and tourism and foreign exchange earnings.	Bidirectional causality among capital investment in travel and tourism and foreign exchange earnings.	Key informants identified that necessary infrastructure to support tourism, such as well-developed transportation networks, accommodation facilities, and tourist-friendly amenities would increase inbound tourism. So, capital investment is necessary for inbound tourism. Again, for capital expenditure foreign direct investment is necessary. Therefore, bidirectional causality among capital investment in travel and tourism and FEE is triangulated by qualitative analysis results.
4.	LR causality between government spending on travel and tourism services to foreign exchange earnings.	Unidirectional causality from government spending on travel and tourism services to foreign exchange earnings.	Key informants identified that necessary infrastructure to support tourism, such as well-developed transportation networks, accommodation facilities, and tourist-friendly amenities would increase inbound tourism. Here the government's role is to develop the necessary infrastructure to support tourism. Therefore, unidirectional causality from government spending on travel and tourism services to FEE is triangulated by qualitative analysis results.
5.	LR causality between government spending on travel and tourism services and capital investment in travel and tourism	bidirectional causality government spending on travel and tourism services and capital investment in travel and tourism	Key informants identified that necessary infrastructure to support tourism, such as well-developed transportation networks, accommodation facilities, and tourist-friendly amenities would increase inbound tourism. It is evident from the qualitative analysis that government spending on travel and tourism services

Serial No.	Subject Matter	Quantitative data analysis results	Triangulation of results of quantitative data analysis with results of qualitative data analysis
			would bring capital investment in travel and tourism. Again, the demand for capital investment in travel and tourism would bring government spending on travel would bring capital investment in travel and tourism. Hence, bidirectional causality between government spending on travel and tourism services and capital investment in travel and tourism is triangulated by qualitative analysis results.

CONCLUSION AND POLICY RECOMMENDATIONS

Tourism is considered an NFS export as it does not involve the physical movement of goods, but the service of accommodation, transportation, food, and entertainment provided to the tourists. It is an important source of NFS exports for many nations and an important contributor to the world economy. As the number of international tourists visiting a country increases, the FEE from tourism also tends to increase (UNCTAD 2018).

Nonetheless, it is crucial to remember that there are certain challenges with tourism as an NFS export. The tourism industry is susceptible to outside influences like natural disasters, economic recessions, pandemics and political instability. In 2020 alone, 0.25 million people in Bangladesh lost their jobs in the tourism sector during the Covid-19 pandemic (WTTC 2023).

This study investigates both the SR and the LR causal relationship between the number of ITA in Bangladesh and FEE from inbound tourism and inquiries about the major obstacles of inbound tourism in Bangladesh. The main result of the cointegration and causality test shows that there is LR causality running from CITT, GSTT, and LITA to FEE. The result supports the existence of an LR relationship running from CITT, GSTT, and LITA to FEE. There are two types of SR causality running here one is from LITA to CITT and the other one is running from CITT to GSTT. The qualitative data show that poor infrastructure and security of tourist destinations, lack of visa facilitation high accommodation costs and immature and unprofessional inbound tour operators are the major barriers to inbound tourism in

Bangladesh. The qualitative data explains and elaborates the quantitative data analysis. The key informants expressed their opinion that without a significant increase in inbound tourism, SDGs indicator 8.9.1 as five per cent tourism directs GDP as a proportion of total GDP by 2030 would not be achieved.

The study's conclusions include several significant policy recommendations. Firstly, the empirical data support Bangladesh's dearth of tourism infrastructure, especially for foreign tourists. The government is now preparing a Tourism Master Plan where a total number of 1053 tourist spots are already being identified. With proper government spending and capital investment in these tourist spots, a specialized tourist zone could be established where international tourists may enjoy well-developed transportation networks, accommodation facilities, better security and tourist-friendly amenities. The first special tourism park in the nation, Sabrang Tourism Park, is now being built in Cox's Bazar with this theme. Secondly, the visa system should be more convenient for tourists. There is a provision for an arrival visa in Bangladesh for some selected countries. However, the visa process takes longer than expected time with some complications like waiting for a long time, cumbersome payment procedures and refusal of visa upon subjective dissatisfaction of the desk officer. The introduction of an e-visa system instead of an arrival visa system could eliminate these problems and cater to more number international tourists. Thirdly, Bangladesh should focus on marine and ocean tourism as well as construct a sufficient number of specialized jetties for cruise ships. This area of tourism in the blue economy is untapped in our country which could bring international tourists in future. Fourthly, inbound tour packages should be more attractive to foreigners and use all means of promotion. Packages could include visiting tourist sites in neighbouring countries. Additionally, the government can provide the private sector incentives and support to invest in the tourism industry. Bangladesh Tourism Board, the national tourism organization, in particular, could take appropriate measures for that including developing multilingual tour guides. Fifthly, the government should take appropriate measures to make three to five-star hotel accommodation costs internationally competitive. Finally, the tourism industry also has a significant impact on the environment, and it has been criticized for the negative impacts it can have on local communities and cultures. Therefore, the government and private sector should work together to implement sustainable tourism practices to minimize the negative impact of tourism on local communities and the environment.

REFERENCES

Aktar, A, Sadekin, N & Saha, SK 2014, 'Relationship Between Tourist Arrival and Foreign Exchange Earnings: The Case for Bangladesh', *Mediterranean Journal of Social Sciences,* vol.5, no.16, pp. 162–165. DOI: 10.5901/mjss.2014.v5n16p162.

BBS 2021, Tourism Satellite Account 2020, Dhaka: Bangladesh Bureau of Statistics.

Das, RK and Chakraborty, J 2012, 'An Evaluative Study on Tourism in Bangladesh', Research Journal of Finance and Accounting, vol.3, no.1, pp. 84–95. Available from: https://www.iises.net/proceedings/international-academic-conference-barcelona/table-of-content/detail?article=social-impact-on-tourism-in-bangladesh-an-analysis, viewed on 14 June 2023.

Dhakal, B 2016, 'Analyzing Nepal's foreign exchange earnings from tourism using co-integration and causality analysis', American Journal of Mathematics and Statistics, vol.6, no.6, pp.227-232. DOI:10.5923/j.ajms.20160606.01.

Engle, RF & Granger, CWJ 1987, 'Co-Integration and Error Correction: Representation, Estimation, and Testing', Econometrica, vol.55, no.2, pp. 251–276. DOI: 10.2307/1913236.

General Economics Division 2020a, 8th Five Year Plan July2020-June2025: Promoting Prosperity and Fostering Inclusiveness, Dhaka: Bangladesh Government Press.

General Economics Division 2020b, Revised Monitoring and Evaluation Framework of the Sustainable Development Goals (SDGs): Bangladesh Perspective. Dhaka: Bangladesh Government Press.

Ghani, E 2010, The service revolution in South Asia, New Delhi: Oxford University Press.

Granger, CWJ 1988, 'Some Recent Development in a Concept of Causality, Journal of Econometrics, vol.39, no.1–2, pp. 199–211. DOI: 10.1016/0304-4076(88)90045-0.

Gujarati, DN 2004, Basic Econometrics, New York: McGraw Hill.

Hafsa, S 2020, 'Economic Contribution of Tourism Industry in Bangladesh: At a Glance', Global Journal of Management and Business Research, vol.20, no.1, pp. 29–38. DOI: 10.34257/gjmbrfvol20is1pg29.

Hassan, R, Ullah, M & Chowdhury, SA 2013, 'Impact of Tourism in Bangladesh Economy', World Journal of Social Sciences, vo.3, no.6, pp. 228–240.

Havi, EDK &Enu, P 2013, 'The impact of tourism on economic performance in Ghana', European Scientific Journal, vol.9, no.34, pp. 242-257.

Hossain, B & Wadood, SN 2020, 'Potential Unexplored? Tourism and Economic Growth of Bangladesh', Journal of Tourismology, vol.6, no.1, pp. 63–77. DOI: 10.26650/jot.2020.6.1.0031.

Kobra, MK, Bhuiyan, KH & Zayed, NM 2018, 'Well and Woes of Tourism Promotion in Bangladesh: Investment Perspective', Academy of Accounting and Financial Studies Journal, vol.22, no.3, pp.1-8.

Maddala, GS & Kim, IM 2004, Unit Roots, Cointegration and Structural Change, New York: Cambridge University Press.

Mahboob, AM & Parvin, R 2010, AIUB Strategic Management of Tourism Sector in Bangladesh to Raise Gross Domestic Product: An Analysis AIUB Business Economics Working Paper Series. Available from: http://orp.aiub.edu/abewps-2010, viewed on 14 July 2023.

Radić, MM 2019, 'The Impact of Tourism on the Balance of Payments Stability', Journal of Tourism and Hospitality Management, vol.5, pp. 44-52.

Rahman, MM 2021, 'Inbound Tourism in Bangladesh: The Trend of Competitiveness', Bangladesh Journal of Public Administration, vol.29, no.2, pp.64-78.

Roy, SC & Roy, M 2015, 'Tourism in Bangladesh: Present Status and Future Prospects', International Journal of Management Science and Business Administration, vol.1, no.8, pp.53-61.

Sagar, R & Retheesh, PT 2020, 'A study on Foreign Exchange Earnings with special reference to Inbound Tourist arrival in India', Shodh Sanchar Bulletin, vol.10, no.40, pp. 173-178.

Sessa, A 1983, Elements of Tourism Economics, Rome: Catal.

Sharma, M, Mohapatra, G & Giri, AK 2022, 'Examining the macro-determinants of tourist arrivals in India', SN Business & Economics, vol.2, no.8, pp.1-18.

Sultana, S 2016, 'Economic Contribution of Tourism Industry in Bangladesh', Journal of Tourism, vol. 22, pp. 45–54.

Turner, L. 1976, 'The International Division of Leisure Tourism and the Third World', Annals of Tourism Research, vol.4, no.1, pp.12-24.

UNCTAD 2018, World Investment Report 2018, New York and Geneva: United Nations Conference on Trade and Development.

United Nations 2010, International Recommendations for Tourism Statistics 2008, New York: United Nations. Available from, https://unstats.un.org/unsd/publication/Seriesm/SeriesM_83rev1e.pdf#page=26, viewed on 16 May 2023.

Vukonic, B 2012, 'An Outline of the History of Tourism Theory', In: Hsu, CHC & Gartner, WC (Eds.), The Routledge Handbook of Tourism Research, New York: Routledge, pp.3-27.

Wood, RE 1979, 'Tourism and Underdevelopment in Southeast Asia', Journal of Contemporary Asia, vol. 9, no.3, pp.274-287.

WTTC 2021, Travel & Tourism Economic Impact 2021, London: World Travel and Tourism Council.

WTTC 2023, Bangladesh 2022 Annual Research: Key Highlights, Available from, https://wttc.org/DesktopModules/MVC/FactSheets/pdf/704/68_2022061315444 3_Bangladesh2022_.pdf, viewed on 16 May 2023.