Socio-economic Impacts of Tourism Development: An Empirical Study on Cox's Bazar

Md. Borak Ali

Department of Marketing, University of Rajshahi
Rajshahi-6205, Bangladesh

ABSTRACT—*This study determines socio-economic impacts of tourism in Bangladesh. Cox's Bazar is chosen for the study area. Two hundred respondents were randomly selected as sample from the spot. A self-administered structural questionnaire was used to collect data. There were 36 items in the questionnaire to collect data on socio-cultural impacts of tourism. Questionnaire also contained demographic variables. Data were collected over five days on the spot. Face-to-face interview method was applied to collect data. Exploratory factor analysis was conducted to arrive the results. Findings show that tourism development has wide socio-economic impact of a region. It contributes to infrastructural development, cultural impact, standard of living, occurrence of crime and cultural exchange. These results signify the need for tourism industry in a country.*

Keywords—Tourism, Cox's Bazar, Socio-economic impacts, Employment, and Standard of living.

---

1. INTRODUCTION

It is essential to diversify the economy of Bangladesh for growing needs for employment and income generation. Tourism is an important sector generating employment facilities in its various sectors. Tourism industry has a high multiplier impact on overall economy of a country. It is the fastest growing industry (Saayman et al., 2001) and has great contribution in many economies of the world. Bangladesh is a land of natural beauty with full greenery in all seasons. It has six distinct seasons; all of the seasons are comprised with several natural presences with delicious fruits, unique festivals and events which reveal the Bengali customs and cultures. Her greenery nature in each season arrives with lots of enjoyment to the people. The country has long and rich cultural heritages which derive from ancient Buddhist, Pal, Sen, and Mughal regime. It has world's famous and world's largest sea beach—the Cox's Bazar which is an absolute natural gift of Bangladesh. Cox's Bazar is a district headquarters located 150 km south of port city Chittagong. It is about 300 kilo meter. from the capital city of Bangladesh. Cox's Bazar is known as the tourist capital of Bangladesh. The most attractive destination here in Cox's Bazar is Cox'z Bazar sea beach, the longest sea beach in the world. It is 120 kilo meter. long sandy beach with a gentle slope. There is no shark or even dangerous sea animals in the Cox's Bazar; it is therefore, good for bathing, swimming and also sun-bathing. Millions of local and foreign tourists come Cox's Bazar each year to see and enjoy the wonderful beauty of nature. Besides the natural beauty there are ample opportunities for enjoying the taste of different sea food and experiencing the lifestyle of indigenous people which give added pleasure for the tourists. In addition to enjoying the beauty of the sea and indigenous lifestyles, this sea beach surrounds lots of hills of different heights which further augments the beauty of the sea beach. Tourists can visit the place any time in the year, however, winter (November to March) is more preferable.

Bangladesh has rich cultural, natural and archeological heritages. All those resources need to be brought up for developing the country economy. If the tourism of the country can be developed, it will reduce the unemployment problem and poverty of the country. Bangladesh has very good tourist site, however, concern stakeholders can not nurse all the spots with good care. Cox's Bazar sea beach and its surrounding natural settings are really an attractive place for tourists. Notable socio-economic changes have been observing since last few decades. It is hardly studied why these socio-economic changes are present in Cox's Bazar. It is therefore, questions— are these changes happening automatically? Are tourists contributing to these changes? Do local people contribute to these changes? Earlier studies did not find answer on the above issues raised. Hence, author intends to see factors underlying with the development of Cox's Bazar sea beach. This study aims to identify major socio-economic impacts caused by tourism development. This study will also pinpoint whether tourists or other stakeholders contribute socio-economic dimensions of tourism development in Bangladesh.

2. METHODS

This study used empirical data collected from tourists visiting Cox's Bazar. A self-administered structural questionnaire was used to collect data. Close ended questions were mostly used in the questionnaire however, there were some open ended questions used to collect demographic information from the respondent. For close ended questions, Likert scale was used ranging from1 to 5 response categories where 1 denotes strongly disagree and 5 indicates strongly agree in the question format. Scale reliability was tested before final estimation of the result. Respondents were selected using simple random sampling method. Mall intercept interview method was used where each respondent was approached when they were at the point of enjoyment at the sea shore of Cox's Bazar. A total of 200 respondents were approached to provide data under 36 items in the beginning. Both SPSS and AMOS software were used for analysing data. The items in the questionnaire were reduced by applying data reduction tools. Finally, 28 items that were closely related to the socio-economic dimensions of tourism were considered for further statistical analysis. Descriptive statistical tools were used for analyzing demographic data. Factor analysis tools were explored to assess the effects of various factors on socio-economic impacts of tourism development in Bangladesh.

3. DATA ANALYSIS AND RESULTS

3.1 Descriptive statistics

In this study, author has observed four demographic characteristics of tourists who visit Cox's Bazar for their purposes. Table-1 presents data related to tourists' occupation, age, gender and marital status. Data show that most of the tourists are student (83.5%) and within the age group between 17 and 25 (82.5%). It is also observed that 70% of the tourists are male and 78% are unmarried. These data reveal that young and unmarried male have higher tendency to visit Cox's Bazar for tour purpose. These people have enough time with less family burden because in most cases they are students. They can easily manage time at their convenience. However, other professional as well as service holders have limited scope to visit any place. In Bangladesh context, male can move around easily as compare to female, therefore, current study finds that male have high tendency to visit. In case of age concern, people over 40 have fewer tendency to visit a place; it may be because of their family or professional bindings or even may be their physical cause.

Table-1: Demographic profile of the respondents

Demographic Variables	Items	Frequency	Percent
Occupation of Tourists	Student	167	83.5
	Service holder	20	10.0
	Business & Profession	8	4.0
	Others	5	2.5
	Total	200	100
Age of Tourists	17-25 Yrs	165	82.5
	26-40Yrs	27	13.5
	41-56 Yrs	08	04.0
	Total	200	100
Gender of tourists	Female	60	30.0
	Male	140	70.0
	Total	200	100
Marital Status of tourists	Unmarried	156	78.0
	Married	44	22.0
	Total	200	100

3.2 Sampling Adequacy

Author uses KMO and Bartlett's Test to examine the accuracy of sample. The result of Kaiser-Meyer-Olkin Measure shows that the current sample is adequate for factor analysis. Table 2 shows that current data yield about 82% accuracy at 1% level of significant for the said analysis.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.829
Bartlett's Test of Sphericity	Approx. Chi-Square	2599.244
	Df	630
	Sig.	.000

3.3 Scale Reliability

Thirty six different items have been considered for the study. Multi-item scales (Five Point Likert Scale) response format has been used to operationalize each individual items of the questionnaire. The overall measurement for contextually formatted items is described in Table 3. Result shows that scales used for data collection are reliable with highly recommended alpha score (a0.861) which is within the range of good scale reliability (O'Leary-Kelly and Vokurka, 1998). However, Cronbach's Alpha scores for five identified factors range from .472 to .749 (see Table 6), suggesting an average level reliability. The current study does not find strong reliability for all individual factors. Further study is recommended including more reliable items under each factor.

Table 3: Reliability statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.898	.899	36

3.4 Analysis of variance (ANOVA)

Table 4 shows that items under each construct (factor) are significantly different. From this result, it can conclude that all items taken for the study are identical. Thus the items selection for the study is appropriate.

Table 4: Variance among the items

		Sum of Squares	Df	Mean Square	Cochran's Q	Sig
Between People		1561.438	199	7.846		
Within People	Between Items	418.574	35	11.959	487.859	.000
	Residual	5587.287	6965	.802		
	Total	6005.861	7000	.858		
Total		7567.299	7199	1.051		
Grand Mean = 3.60						

3.5 Scree Plot

This study examines the optimal number of items using scree plot. This demonstrates the distribution of variance among the components. For each principal component, the corresponding eigenvalue is plotted on the *y*-axis. The eigenvalue of each item in the initial solution is plotted in the figure below. Figure shows that the variance of each component is less than the proceeding one. The sharp fall is marked after the second, third and forth principal component and last big drop occurs between third and forth components. As it is known, components on the shallow slope contribute little to the solution. Thus, we can choice first four principal components for understanding socio-economic impacts of tourism in Cox's Bazar.
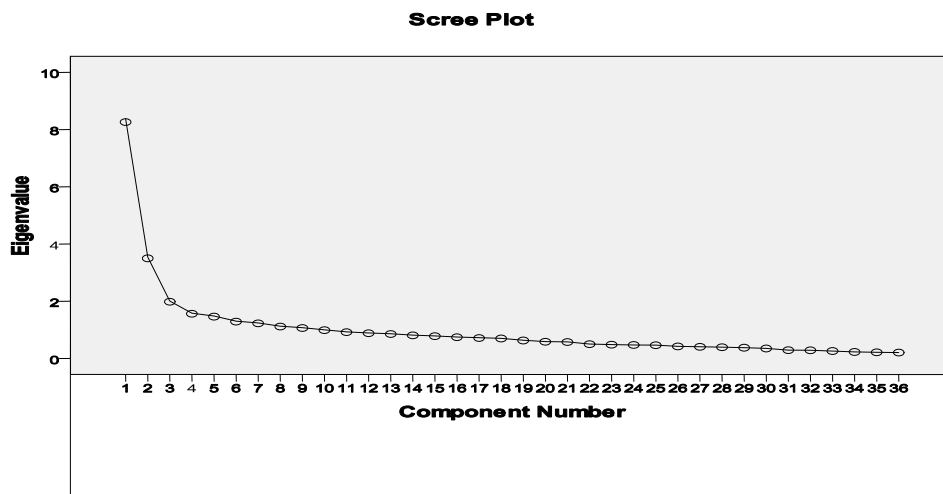

Figure1: Scree Plot

3.6 Extraction communalities

Author examines communalities of each variable accounted for the study. Initially 36 items were approached for this test. This study does not find absolute high commonalities score for all items. Hence, some of the items (with scores below 0.5) have been dropped from the data set. The items which have 0.5 or more commonalities score have been accepted for further analysis. Since data have been collected from field survey, author has considered current score level. Finally, 28 items have been selected under five factors

3.7 Variance

This study identifies 28 items from initially approached 36 items that are important to measuring socio-economic impacts of tourism in Bangladesh. All 28 items are selected based on Eigen value—value 1 or above includes into the list of items. Statistically 28 items construct nine factors which can explain about 60% of the field. So, author considers these factors are important for the study. Factor-1 explains 22.944% with a total Eigen value of 8.260 (see Table 5). Hence, this factor is the most important in the current study which is related to the infrastructural development of Cox's Bazar.

Table 5: Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative%
1	8.260	22.944	22.944	8.260	22.944	22.944	3.431	9.531	9.531
2	3.499	9.721	32.665	3.499	9.721	32.665	3.188	8.857	18.388
3	1.983	5.508	38.172	1.983	5.508	38.172	2.729	7.581	25.970
4	1.563	4.341	42.513	1.563	4.341	42.513	2.231	6.197	32.166
5	1.463	4.063	46.576	1.463	4.063	46.576	2.192	6.089	38.255
6	1.289	3.580	50.156	1.289	3.580	50.156	2.114	5.873	44.128
7	1.228	3.412	53.568	1.228	3.412	53.568	2.083	5.785	49.913
8	1.115	3.098	56.666	1.115	3.098	56.666	2.081	5.780	55.693
9	1.065	2.958	59.624	1.065	2.958	59.624	1.415	3.931	59.624
Note: Extraction Method: Principal Component Analysis.									

3.8 Exploratory Factor Analysis

As results show in Table 5, nine factors were initially formed from 28 related items of socio-economic perspective. Factor analysis was conducted to know the underlying factor associated with all 28 items. Author has constructed five factors from all 28 items based on contextual validity of tourism development of Bangladesh. This study reveals that socio-economic impact of tourism goes to infrastructural development, cultural impact, standard of living, occurrence of crime and cultural exchange.

Factor-1: Infrastructural development: This study has identified that tourists impact on infrastructural development. This factor constitute with four items— Infrastructural development due to tourists, Development of accommodation facilities, Undertaking new development plans and Establishing planned city concept. The chi-square value for this factor is 170.69 which is significant. In this factor, the alpha value (.472) is below the minimum acceptable level—.70 or above (O'Leary-Kelly and Vokurka, 1998). However, the factor loading score for each item is within the acceptable level (from .664 to .750; see-Table 6). In this context, this factor construction is justified.

Factor-2: Cultural Impact: Tourism development in an area causes cultural impact. This factor constitute with seven individual items with good factor score range from .537 to .799 (see Table 6). The Chi-square value of this factor is 18.121 which is significant at 1% level. The Cronbach's Alpha (.749) is quite satisfactory within acceptable level. So, the factor and its items are relevant.

Factor-3: Standard of Living: Tourism improves the standard of living. The current study identified eight items where tourism contributes to improve the standard of living for the country men. The factor loading score for each of the eight items is within the acceptable range. The score of all eight items range from .572 to 712. The Chi-square value of this factor is 96.128 which is highly significant. The Cronbach's Alpha (.701) is within the minimum acceptable level for this factor. Considering the above mentioned scores, it is said that this factor is rightly constructed.

Factor-4: Occurrence of Crime: Tourism has social impact as it causes crime in a area where tourists come from home and abroad. This factor is constructed by four items with good factor score for each individual item ranging from .588 to .678. The Chi-square value of this factor is 31.471 at a highly significant level. However, the Cronbach's Alpha score

(.556) is below the minimum acceptable level. Author constructs this factor as important for social impact of tourism because the items included under this factor are relevant with Bangladesh context.

Table 6: Factor statistics

Factors / items	Cochran Chi-square	df	p	Mean	SD	Factor Loading	Cronbach's Alpha
Infrastructural Development (Fac-1)	170.69	3	.000				.472
Infrastructural development due to tourists				3.91	.877	.699	
Development of accommodation facilities				3.78	.953	.653	
Undertaking new development plans				4.20	.908	.644	
Establishing planned city concept				2.91	1.139	.750	
Cultural Impact (Fac-2)	18.12	6	.006				.749
Foreign culture spread widely due to tourists				3.52	1.075	.730	
Local culture detoriate due to of foreign culture				3.73	1.160	.697	
Local culture abolished due to foreign culture				3.52	1.134	.585	
Tourists influence the local language and accent				3.43	.995	.537	
Tourists change dressing of local people				3.62	.927	.799	
Tourists change local culture				3.56	.980	.655	
Local people follow tourists' dress and food habits				3.71	.986	.691	
Standard of Living (Fac-3)	96.128	7	.000				.701
Tourists help for certain group (Guides)				3.37	1.100	.712	
Increasing standard of living by earning foreign currency				3.57	1.128	.598	
Increasing standard of living due to employment creation				3.77	.897	.654	
Increasing education rate for tourists' arrival				3.23	1.133	.596	
Increasing per capita for local people				3.98	.817	.708	
Tourists consume products which symbols for modern life				3.62	.932	.572	
Tourists come from various countries brings modern thoughts				3.67	.839	.695	
Tourists usually demand new goods & services				3.71	.876	.693	
Occurrence of Crime (Fac-4)	31.471	3	.000				.556
Poor employment rate is responsible for crime				3.20	1.124	.678	
Low education rate is responsible for crime				3.54	1.093	.590	
Tourists are responsible for drugs				3.20	1.124	.588	
Crime increase for lack of security guards				3.72	1.042	.633	
Cultural Exchange (Fac-5)	34.076	4	.000				.567
Tourists participate into welfare activities				3.40	.930	.566	
Tourists help to diversification in food habits				3.66	.965	.586	
Tourists celebrate Bengali local cultural events				3.76	.833	.534	
Tourists introduce new cultural events				3.82	.833	.554	
Tourists participate into local cultural programs				3.53	.956	.564	

Factor-5: Cultural Exchange: Tourism development in a region provides opportunities to exchange inter-cultural events and customs. Cultural exchange is constituted as a factor with five items. The factor scores of all five items range from .534 to .586. The Chi-square value of this factor is 34.076 which is significant at 1% level. The Cronbach's Alpha score is .567 which seems below the minimum acceptable level. However, author emphasis on this factor since data were collected from field sources.

4. DISCUSSION AND CONCLUSION

Results yield current scenario of tourism impacts on socio-economic dimension in Bangladesh. This study reveals five factors significantly associated with socio-cultural impacts. Tourism can be an agent of infrastructural development (Mbaiwa, 2003) of a region. Tourism creates growing needs for transport, accommodation, banking services and many others. Due to huge number of tourists arrival, Cox's Bazar develops as an important city of Bangladesh with available transport, accommodation, banking and many other facilities. This development contributes to the national economy of the country. Surrounding all these facilities and services, significant employment opportunity has been created in Cox's Bazar. Thus tourism brings employment and earnings for the country men (Mbaiwa, 2003). Along with infrastructural development, tourism impacts on local and regional culture. People of a region can be influenced by certain cultural

aspects that are derived from tourists. This study has found some positive social impacts (Mensah, C. 2012) of tourism to change culture of people. This study has also found some negative cultural impacts such as cultural detoriation, change of local language and accent, foods and dresses which is supported by Brown (1998), Krippendorf (1989) and Turner (1975). Both for infrastructural and cultural changes, tourism contributes to improve the standard of living of people. In this process, tourism enhances the image of a region (Mensah, 2012). The literacy rate, consumption of new and modern goods, earning patterns, bringing new ideas—all these contribute to higher standard of living. Tourism development can extend cultural sharing between tourists and local communities. This study has found that tourists from different countries participate into local cultural programs which become an input for cultural changes. Crime is one of the important dimensions present widely in tourism destination of Bangladesh which has high social concern. Study has found, crime occurs due to unemployment, poor education rate and insufficient security guard that are internal aspects. However, result also shows that crime increase due to use of drugs which is derived by the tourists.

Tourism industry requires a series of inputs such as transportation, food and accommodation, security, recreation, and so on; all those automatically open up a wide range of economic activities. A significant number of people can engage in transporting, accommodating, catering and recreating the tourist. It can generate employment facilities in different modes of transportation system such as air, road, rail and water. Employment can also be generated providing food and accommodation services such as hotels, motels, restaurant, etc. However, the accommodation facility in Bangladesh is not generally world standard (Islam and Islam, 2004). It can also generate employment in many forms of trades. So, the development of tourism industry has positive relation with employment generation. Bangladesh is a densely populated country; unemployment is a major economic problem which in turn creates socio-cultural problems. Hence, tourism as a labour intensive industry can provide both entrepreneurial and employment opportunities (Ali *et al*, 2010a) for both skilled and unskilled than other manufacturing industries. Both government and private initiatives are required in this connection.

Tourism development provides opportunities to stimulate local commerce and industry. As shopping is an important part of tourist activities, tourist from different countries comes to Cox's Bazar and purchase different local and traditional items as a souvenir, thus it creates demand for local and nontraditional items. At the same time, tourism can indirectly stimulate exporting of nontraditional items of Bangladeshi goods. For example, a tourist come to Cox's bazar and buy some locally originated famous items i.e., NAKSI KATHA (handmade blanket), natural silk fabrics, SHOTORONCHI (jute made carpet) and take away in their home country and thus introduce those items in foreign country. This process acts as a gateway of international trade between countries. In fact, the development of tourism industry improves the living standards of local people (Ali, *et al*., 2010b).

Besides those economic benefits tourism also have some social benefits. It reinforces the preservation of local heritage and tradition. Tourism is the way of exchanging language, culture, religion and politics that can minimize the differences among nations or even different region of a country. Moreover, tourism creates a favorable worldwide image for a destination (Mensah, 2012; Goeldner and Ritchie, 2006). Tourism has not only benefits but also has some costs to host communities. There are many social costs incurred from tourism such as disease, like HIV, cultural pollution, etc. The harmfulness of these negative aspects of tourism penetrate slowly into the society which difficult to measure. Brown (1998), Krippendorf (1989) and Turner (1975) point out some of the unpleasant aspects of tourism in their books. If the tourism development happens with improper planning, it can create problems. The demand of tourism may come into conflict with the needs and wishes of local people and needs of tourists. Due to those social costs sometime it is difficult to develop tourism industry properly in developing country. As for example Saint Martin Island is a unique island in Bangladesh and even in the world. But Bengali social system, culture and their religion do not permit some activities which are common in international tourism such as- gambling, prostitution, sunbathing, curative spa, body message, and the like. So, Saint Martin has yet to be development as internationally famous tourist destination. Similar assumption can be drawn for socio-cultural dimensions of tourism in Cox's Bazar. In that situation questions come that who will take the responsibility to make a balance between benefit and cost of tourism industry.

The growth of this industry can positively impact on socio-economic development of the country. This growth does not only affect the activities directly linked to tourism but also to other sectors. Cox's Bazar passes years of time with good humors of local communities. They are very much hospital and cooperative to the visitors. If sufficient facilities are provided for the tourists, Cox's Bazar will be considered an ideal tourist destination both for local and foreign tourists which will contribute to social and economic development of the country. Further study can be conducted to arrive in depth understanding about socio-economic impacts of tourism development.

5. REFERENCE

[1] Ali, M. B., Islam, F. and Rahman, M. (2010). Development of rural tourism: Searching for a new tourist destination. *Rajshahi University Journal of Social Science and Business Studies*, 18: 119-130.

[2] Ali, M. B. Islam, F. and Arefin, M. (2010). Developing beach tourism: A case of Bangladesh. *Journal of the Faculty of Business Administration,* The Islamic University Studies, (Part-C), Vol. 8 /1&2.

[3] Brown, F. (1998). *Tourism Reassessed: Blight or Blessing?* Oxford, UK: Butterworth-Heinemann.

[4] Goeldner, C. R. and Ritchie J. R. B. (2006). *Tourism- Principles, Practices, Philosophies.*10e, JohnWiley & Sons, Inc, Hoboken, New Jersey..

[5] Islam, M. F. and Islam, M. N. (2004). Tourism in Bangladesh: An Analysis of Foreign Tourist Arrivals. *Journal of Travel and Tourism Research*, 4/1: 26-39

[6] Krippendorf, J. (1989). *The Holiday Makers*. London: Butterworth-Heinemann.

[7] Mbaiwa, J.E. (2003). The socio-economic and environmental impacts of tourism development on the Okavango Delta, north-western Botswana. *Journal of Arid Environments,* 54: 447–467.

[8] Mensah, C. (2012). Residents' Perception of Socio-economic Impacts of Tourism in Tafi Atome, Ghana. *Asian Social Science*, Vol. 8, No. 15.

[9] O'Leary-Kelly S.W. and Vokurka, R.J. (1998). The empirical assessment of construct validity. *Journal of Operation Management*, 16(4): 387-405.

[10] Saayman, M.; Saayman, A. and Rhodes, J. A. (2001). Domestic tourist spending and economicdevelopment: the case of North West Province. *Development Southern Africa,* 18/ 4: 443-455.

[11] Turner, L. and John, A. (1975). *The Golden Hordes*. London: constable.

.