

## **Tourists' Perception Towards the water-based tourism: A Case Study on Cox's Bazar, Bangladesh**

**Md. Kamruzzaman<sup>\*</sup>**  
**Uchinlayen<sup>\*\*</sup>**

**Abstract:** *The study has been conducted on Cox's Bazar sea beach which is the longest one in the world. It studies tourists' perception regarding water-based tourism. Structured questionnaire were used and perceptions were collected from 200 respondents through convenience sampling. Both quantitative and qualitative methods and both primary and secondary information have been used for collecting information about tourists' perception towards the water-based tourism. The research has been conducted through the exploration of relationship between psychological variables, like perception, motivation and satisfaction. The main aim of the research is to find the relation between the perceptions of the tourists of Cox's Bazar and their satisfaction. From the study some factors have been identified like natural beauty, facilities, and information and hospitality facilities. Other factors like sanitation, security, caring services, hygiene are also identified. The study also aims to make some suggestions to improve the challenges faced for measuring tourists' perception towards water-based tourism in Cox's Bazar area. The study finds the significance towards the perception by gender, age, education, income and profession. It also gives the policy makers and planners for conducting unique marketing strategy for highlighting Cox's Bazar as water-based tourism destination in Bangladesh. Considering Cox's Bazar as the destination, a model named 'Desper (Destination Perception) Model' has been developed in this paper. To identify the association between the variables correlation and multiple regression analysis were steered. The results of the calculations made through hypothetical model shows that there is a positive and linear relationship between the dependent variable (perception of the tourist) and the independent variables (the factors that affect the tourist's perception in Cox's Bazar). Finally, the results of this paper concluded that the domestic tourists are satisfied with the services of Cox's Bazar and they will be more willing to revisit the destination and recommend it through positive word-of-mouth if some prevalent services are enhanced.*

**Keywords:** *Tourists' perception, Destination Perception, water based tourism development, Cox's Bazar*

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<sup>\*</sup> Md. Kamruzzaman, Assistant Professor, Department of Tourism and Hospitality Management, Faculty of Business Studies, University of Dhaka; E-mail: kamruzzaman@du.ac.bd

<sup>\*\*</sup> Uchinlayen, Assistant Professor, Department of Tourism and Hospitality Management, Faculty of Business Studies, University of Dhaka.

## 1. Introduction

Visitors' perception and satisfactions are very important for tourism destination or beach management. This destination may be sea beach or area in a country (Gnanapala, 2015). According to Robbins (2005) perception is a process by which people interpret and organize their environment. They do this through sensory impressions that are really meaningful. Perception is the process by which individuals give a meaningful environment by sensory impressions through organizing and interpretation (Robbins & Coulter, 2005). According to Chheang (2011) tourist perceptions and experiences are based on the culture, friendliness, and hospitality facilities of the local people regarding a destination or beach area. Tourists' perception regarding to choose a destination in Bangladesh is influenced by many factors and customers satisfaction.

Bangladesh is a country with a lot of rivers, canals, lakes, ponds and well known beaches. So these resources are most suitable for water based tourism activities in Bangladesh. Boating, sailing, fishing, river cursing, diving, rafting etc. could be major events of water based tourism activities in Bangladesh. Water based tourism is a new form of tourism in this era. The development of water tourism could create an opportunity for tourism development in the country. Tourists are very eager to see Bangladesh and having natural along with manmade beauty. Bangladesh is a riverine country with a lot of water network. Every year 22-30 percent of the country went under water during rainy season. But water transports are neglected. She has eight inland ports but due to negligence it suffers a lot. To take care of the ports operation The Bangladesh Inland water Transport Authority (BIWTA) is in charge. That's why proper policy and guide lines are necessary for water resource management (Rio+ 20: National Report on Sustainable Development, 2012 pp. 74-75). She is a land of numerous beauties. There are above hundreds of rivers, clear water, lakes, sandy beach, forests, nature, green paddy fields, hills, culture and heritage. All of these elements made her unique in the world map (Saha, 2014 pp. 27-28). Bangladesh is a state having enormous rivers. There are almost thousands of rivers named The Padma, the Mehna, the Jamuna, and the Brahmaputra. Tourists can get unique pleasure travelling along them. Various types of boats with unique design could be available for the tourist in Bangladesh. For making river tour traditional wooden boats, ferries, steamers, and launches could be used. Tourists can use these to visit villages or sea shore for making adventure tours (Islam, 2015 p. 27). In the 21<sup>st</sup> century new types of niche tourism have been evolved. Among them water tourism is a new one. Marine tourism, boating, sailing, sports fishing, diving, white water rafting are very popular forms of water based activities. These activities may have impact on society, economy, environment and culture too. So, the development of water tourism in Bangladesh may create appeal for the domestic and international tourist.

Cox's Bazar is the world's continuous longest sea beach with huge potential of water-based tourism activities. There are nearly 400 hotels, guestrooms, and motels to facilitate around 80,000 travelers who visit Cox's Bazar. Among them twenty-five hotels claim as five star and three star categorized by providing accommodation (Unb, Dhaka 2016). Moreover, Nowreen and Mohiuddin (2018) found that there are nearly 150 quality hotels and motels in Cox's Bazar for providing accommodation facilities. It was also narrated that there are 7 five star hotels, 35 three star hotels, 52 two star hotels, and 25 one star and government motels in their field study area. The rent of the hotels varies depending on their facilities. The numbers of tourist facilitated by the hotels on an average are nearly ten thousand according to researchers. On the contrary, the large hotels accommodate nearly thirty thousand annually. However, the average income of most of the hotels is five thousand BDT (Bangladeshi Taka) and some hotels earn fifty thousand taka daily (ibid). The rent of the hotel rooms may be one thousand to thirty thousand plus based on the service levels.

According to Ahammed (2010) approximately two (2) million people travel Cox's Bazar from November to March in peak season. Laboni, Kolatoli, Inani, and Himchori are mostly visited areas. Among them Laboni is the heavily visited destination in the region with daily highest visitors of as high as thirty thousand. This sort of tourist visiting trend continues for the several years at the Cox's Bazar area. Therefore, water-based tourism could be recreational and adventurous activities for the tourists.

By the end of the year 2017 the number of domestic tourist increased 65 lakh to 70 lakh. Moreover, among the domestic travelers sixty percent tourists visits Cox's Bazar. In 2000 the number of tourist travelling to Cox's Bazar were only 3 to 5 lakh but in the future this rate will increase to one crore (Moretaza, 2018).

In another study it is found that there are almost 154 restaurants for supplying food for the tourists. There are also 220 hotels, guest houses, and cottages for the tourists who visit from home and abroad to Cox's Bazar. Moreover, there are 54 tour operators approximately working in destination where almost 810 are employed (Mamun, Hasan & Hossain, 2013).

For providing transportation facilities air and bus services are available to travel from Dhaka to Cox's Bazar. That's why; there are many buses to travel to Cox's Bazar from Dhaka. The bus journey is very comfortable and luxurious too. The price varies from bus company to company. Both AC and Non-AC bus services are available for the tourists.

In addition to bus service, air travel has already been popular for the tourists. Biman Bangladesh air lines, Novoair, US Bangla Air lines etc. are comfortable and affordable air transportation for the tourist. Tourist usually spends for food, transportation facilities, and accommodations.

Rivers have a great impact on nation and human life. These rivers play vital role in cultivation as well as commercial transportation. These are also sources of income for many like proving fish which is a great source of protein. Again these rivers can play for water based tourism development in the country. Water can be used in various sectors for tourism industry. The target market of tourist can enjoy various water related activities during their visit in Bangladesh. Spa tourism is very popular form tourism in ancient time as used medical purpose once. Bangladesh is filled with forests, hills, lakes, rivers, beaches and seas. It is criss-crossed by three mighty rivers the Padma, the Jamuna, and the Meghna and with a lot of tributaries. The east and the northeast of the country join India, and the southern part join the Myanmar with hilly dense forest (Rahman & Yeasmin, 2014).

Bangladesh is a country to be proud of having many natural and manmade tourism resources. Water-based tourism is related to activities undertaken in or on water resources. These resources are lakes, canals, rivers, marine zones, water ways, oceans, seas, and other ice related arena (Jennings, 2007). Nafakhun, Jadipai waterfall, Shailopropat, UpabanLake, Rijuk waterfall, rivers, PrantikLake, Bogalake are potential water based tourism destinations in Bangladesh. Tourist can visit these beautiful natural longest, largest waterfalls in the country (Afroz&Hasanuzzaman, 2012). Along with these, the unbroken sea beach Cox's Bazar, Kuakata sea beach, Innani, St. Martin, Patengha beach, are some destination for water tourism that can attract foreign and local tourists. Water provides recreation, transportation, adventure, environmental link up with nature. The water network is very vast in Bangladesh. Cruise ships, bird watching, boating, fishing, rafting etc. are important for tourism growth in the country. Poverty reduction could be possible while huge community people get involved in various tourism activities.

Water transport is necessary for the inland waterways communications. Comparing to road and rail transport water transport is cheap. In some cases water ways are only the mode of communication for the people. The total length of water way (700 rivers) is about 13,000 kilometers. To fulfill the need of the target visitors water or marine transports, infrastructure, transport facilities, trusted guide tours are required. At the same time visitors should be provided with cheap public transport and facilities like exploring other attractive places along with shopping.

Nowadays cruise ship tourism has become very common form water based tourism in the world. Cruise shipping is now a growing leisure industry which has a great impact on a country's economy. This cruise lines plays an important role for both transportation and recreation facilities for tourists and passengers. Bangladesh is place for promoting cruise ships tourism in various aspects. Cox's Bazar is a unique place in the history of Bangladesh to get first cruise ship named Silver Discoverer which visited Colombo to

Kolkata and Maheskhali. During the visit the Buddhist temples, pagodas and hills were main attractions for the guests. Since 1920 the paddle-ship service has been running in the country known as The Rocket (lonelyplanet.com, 2017). The luxury cruise ship Silver Discoverer added new dimensions in world map about Bangladesh. It carried almost ninety five percent foreign holiday makers. It boosted the future of tourism industry in the country (dhakatribune.com, 2017). Various types of facilities are provided to the guests like food and beverage, shopping, bars, accommodation etc. The waste disposal in the rivers or waters has a negative impact on eco system. When water activities are performed then marine life need to be considered very seriously (Taylor, 2014).

## **2. Literature review**

Bangladesh is a country of picture some rural areas with thousands of villages. The ever green paddy field, countryside besides the rural areas can easily attract domestic and foreign tourist. Bangladesh is known as a country of riverine. At the same time there are a lot of canals, haor, baor, ponds, lakes and water paths. There are also some popular and world known sea beaches like Kuakata, Cox's Bazar, Inani, St. Martin Island etc. In some beach areas water sports like surfing, diving, long drive activities are provided for the tourists. Cox's Bazar is the longest and unbroken sea beach in the world. It might be the very potential destination for water-based tourism in Bangladesh. Tourist may perceive various ways regarding water tourism in Cox's Bazar.

People want to enjoy their leisure or recreational activities in a particular time. They try to get involved some activities which could provide them fun and amusement. To serve their objectives tourism could be an appropriate one. In Bangladesh tourism still remains in a take off stage.

Tourism is an income driving industry of many developing countries. Bangladesh is blessed with beaches, forests, seas, bio-diversity, hills, and rivers etc. Among the different types of tourism bicycle tours, water tourism, wildlife tourism, boat sharing, and cruise ship are important part. This form of tourism also helps in poverty alleviation of the country (Khondker & Ahsan, 2015). These elements are very important for water tourism development in Bangladesh.

Water based recreations are the main motivation for developing water tourism. Rafters, anglers, and residents become motivated based on status, relaxation and solitude, above all social and physical aspects. Rafting, angling, and kayaking are popular form recreation in river based tourism. For taking adventure, relaxation, fishing and intrinsic reasons water based tourism is conducted Thapa et al., (2004). Another water activity is scuba diving which is very popular water based tourism. It provides a kind of experience for the tourist (Dignam, 1990). In Bangladesh these water-based tourism flavor are available in Cox's Bazar and Kuakata.

Bangladesh is full of coasts, beaches, islands, hills, jungles along with countryside and green paddy field. For tourism development these resources are valuable ingredients in Bangladesh. The prospects and problems for tourism development in the country have been discussed where proper policy, strategy, and guideline are essential. National economy is largely now dependent on tourism in Bangladesh (Rahman et al., 2010).

According to Jennings (2007) water-based tourism is categorized into four types. Among them sailing, boating sports, adventure, and sustainability are the main issues to be considered for the development of water-based tourism. Though water tourism is made for leisure or recreation purposes its negative effects must be kept in mind. Boating could be a vital way of ride or transportation in the canals or river ways. Boating can be separated into two categories like sail or motor driven (Jennings, 2003). Boat racing is a very interesting festival used to observe in Bangladesh. Every year still boat racing is being organized in the rural destination for enjoyment along with to carry on the traditional festive. Though motor driven boating are used for leisure or recreation purposes but it may create some negative impacts on environment.

Some motivational factors have influence on water-based tourism activities. Most of the cases water-based attractions are important for drawing attention of the domestic and foreign tourist are lakes, valleys, mountains, hills, water close to historical places, and water view point levels (NAVRÁTIL et al., 2010).

Water-based activities contributed a lot in the Ireland economic growth. Local communities were benefited due to employment opportunities based on water related activities (Morrissey & Moron, 2013). Economic, social, and environmental aspects are also taken in the consideration for water-based tourism development. Marine or coastal areas are the prime locations for spending leisure and tourism activities (O'Mahany et al., 2009).

According to Curtis (2003) recreational activities are the necessary part of leisure for the quality life. Tourists travel for one day or overnight visit for escaping from their usual life style. Water-based tourism in this case could provide adventure, sports, recreation, and leisure at the same time.

Beaches are also some components for developing water-based tourism development. These are the most popular tourism destinations globally. Water-based tourism in Hungary has profound impacts in tourism industry. Lakes are very suitable for developing water tourism in this region. The development motives are to attract both domestic and foreign tourists. The purpose is to provide recreation and leisure for the tourist. But both positive and negative sides need to be considered in developing water-based tourism (VASVÁRI et al., 2015). As Bangladesh has the world's longest sea beach so it is a nice place to promote water-based tourism. Along with this Kuakata, Inani, and St. Martin Island are remarkable destinations to develop water tourism.

Underwater resources and surface water are main attractions for water-based tourism in Hungary. Rivers, canals, lakes, spas, mountains, and hills are the elements for tourism development. Sports, fishing, health tourism, and medical tourism are also provided along with recreation (VASVÁRI & MARTONNÉ, 2015). But there are also some problems for developing water-based tourism development. Direct and indirect impacts like social, political, legal, cultural, and economic impacts are prevailed sometimes.

According to Cole (2012) water and tourism are related in Bali Island. In Bali water is dependent on tourism and tourism is dependent on water supply. The ecology, environment and politics are the results of social conflicts in some extents. For the economic development of tourism water management are important. Water tourism can lead to achieve these goals.

Water-based tourism is related to water resources. Some activities are provided to attract a large pull of tourist to a particular place or destination. Tourists visit these places for spending their recreation or leisure time or enjoying adventure and get involved in various sports.

### **3. Significance of the study**

Water-based tourism is a new dimension in tourism industry in the world. Around the globe its' popularity has been increased day by day with the passage of time providing tourists for conducting activities like recreational, leisure, adventure, fun, excursion etc. The research work has been conducted on the socio-demographic profile to understand how they perceive about water activities in Cox's Bazar. Regarding this Cox's Bazar is the most suitable area to promote water-based tourism rather than any other sea shore. It is known the longest and only unbroken sea beach in the world. Tourist may find more water related activities in the city and contribute the development of the industry.

### **4. Objectives of the study**

The study focuses on the tourists' perception towards water-based tourism in Cox's Bazar. Considering Cox's bazar as the destination the objectives of this study are:

1. To explore the relationship between the tourist's perception and their level of satisfaction.
2. To identify the potentials of water activities, current scenario in Cox's Bazar areas, opportunities and its' contribution for tourism development in Bangladesh.
3. To analyze the components that can enhance visitor satisfaction, if utilized properly.
4. To discover the accessible assets for the advancement of water based tourism.

Some suggestions are also made for overcoming challenging issues in developing water-based tourism.

## 5. Methodology

To determine and evaluate the level of tourists' satisfaction from a particular destination, various types of models have been used. The researchers widely use four basic instruments for measuring the satisfaction of tourists; and those are:

1. IPA – Importance Performance Analysis. Developed by Fishbein, 1963
2. SERVQUAL – Service Quality. Developed by Parasuraman, 1988
3. SERVPERF - Service Perception Developed by Cronin and Taylor, 1992
4. HOLSAT - Holiday Satisfaction. Developed by Alegre & Garau, 2010

For this research, the study area has been selected in the Cox's Bazar sea shore area. Exploratory research has been used along with descriptive method as both methods have been used to conduct the study. The study area had been chosen based on the importance of the sea beach area. Moreover, the study is basically based on mixed methods. For data collection both primary and secondary data have been collected to conduct the study. Furthermore, to collect primary data convenience sampling method has been used. The sample size is 200 using convenience methods as it is comparatively easy for the researchers to collect information from the respondents. The data had been collected in peak season from the study area.

Again, a structured questionnaire was formed by using Likert Scale (5-point scale) to collect data from the respondents. The questionnaire constituted of two parts, where the first part consisted with demographic profile which was designed to collect the demographic data and perception of the tourists based on age, gender, income, etc. The second part contained the questions regarding the perception of the tourists when they were in their holiday and their expectations from the destination, and overall level of satisfaction of the tourists. As respondents' number was 200 so researchers went to the target population. Primary data were collected from the respondents personally beyond gender categorizing. On the other hand, secondary data were collected from related articles, books, journals, and websites. The data has been analyzed using appropriate tools such as descriptive, frequencies, and regression analysis. In order to create correlated variables from the total attributes factor analysis method has also been used. Ironically, multiple regression analysis also been conducted to find out relation between dependent and independent variables. These analyses have been made using Statistical Package for Social Science (SPSS 20) software. This study assumed that the level of satisfaction of the tourists depend on their perception regarding the destination and other accompanying factors.

### 1.1 Data Presentation

In this research, the quantitative data have been used primarily. Advanced statistical calculations have been made with the help of SPSS tools, for example, descriptive



statistics, principal component analysis and factor analysis. Moreover, to find the inter-relationship between the dependent and independent data, analysis such as simple and multiple regression analysis and correlation analysis are employed. To find and evaluate the research findings and to select the best suited subset, ANOVA and Mallow's CP statistics were used respectively

## 1.2 The Model

The following model has been employed to represent the relationship between the dependent and independent variables:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \epsilon_i$$

*In this model, Dependent Variable:*

$Y$  = Tourists level of satisfaction during their stay in Cox's Bazar

And, Independent variable,  $X$  = the associated factors that affect the tourists perceived image regarding the destination. Here Independent variable  $X$  has 9 factors. They are:

$X_1$  = Tourists' Attractions

$X_2$  = Accommodation & Entertainment

$X_3$  = Food & Beverages

$X_4$  = Behavior of Staff

$X_5$  = Safety & Security

$X_6$  = Guide Services and Information

$X_7$  = Price Levels

$X_8$  = Nature of the selling Products and Behavior of the Vendors

$X_9$  = Infrastructure and super structure facilities

## 2. Data Analysis

### (a) Respondents' Socio-Demographic Profile

Table in **Appendix 1** shows the demographic profiles listed for analysis. The total number of respondents' were 200 out of which 120 (60%) were male and 80 (40%) were female. The respondents' age were also taken into consideration as large group of age related information were collected. Out of the total respondents', the largest age group were 21-30 (60%), 31-40 (17.5%) followed by below 20 (2.5%). The highest number respondents' completed higher secondary 32.5 %, secondary 22.5%, graduate 25%, post-graduate 7.5% followed by others 2.5%. Among the respondents' 45% were married, 37.5% unmarried followed by 17.5%. On the other hand, in case of profession 30% were students, businessmen 15%, and private service holder 20% followed by 10% were government service holder. In addition 40% respondents' income was 25,001-50,000 taka range per month, followed by 10% below 10,000 as they were students. From the study

it is clear that most of the respondents are students, completed higher secondary, young and energetic as the intention of water based tourism activities were made in Cox's Bazar sea beach.

**Table: Correlation Analysis**

		Y	X1	X2	X3	X4	X5	X6	X7	X8	X9
Y	Pearson Correlation	1									
	Sig. (2-tailed)	-									
	N	200									
X1	Pearson Correlation	0.399									
	Sig. (2-tailed)	.001									
	N	200	200								
X2	Pearson Correlation	.437	.630								
	Sig. (2-tailed)	.000	.000								
	N	200	200	200							
X3	Pearson Correlation	0.450	.494	.499							
	Sig. (2-tailed)	.001	.001	.002							
	N	200	200	200	200						
X4	Pearson Correlation	.432	.257	.483	.512						
	Sig. (2-tailed)	.000	.003	.000	.0012						
	N	200	200	200	200	200					
X5	Pearson Correlation	.362	.489	.635	.411	.513					
	Sig. (2-tailed)	.002	.001	.001	.000	.000					
	N	200	200	200	200	200	200				
X6	Pearson Correlation	.353	.553	.610	.420	.399	.689				
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000				
	N	200	200	200	200	200	200	200			
X7	Pearson Correlation	.387	.397	.543	.477	.499	.658	.458			
	Sig. (2-tailed)	.000	.000	.002	.000	.003	.004	.000	.000		
	N	200	200	200	200	200	200	200	200		
X8	Pearson Correlation	.342	.499	.458	.378	.354	.513	.646	.614		
	Sig. (2-tailed)	.001	.001	.000	.000	.0012	.000	.000	.000	.000	
	N	200	200	200	200	200	200	200	200	200	
X9	Pearson Correlation	.233	.337	.441	.912	.255	.512	.559	.326	.322	1
	Sig. (2-tailed)	.071	.002	.000	.000	.000	.000	.001	.000	.000	.000
	N	200	200	200	200	200	200	200	200	200	200

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**(b) Results and Discussion:****i. Correlation Among the Dependent and Independent Variables**

Correlation is used to measure the level of association between two variables but it does not give any test of cause and effects (Seilr, 2004). It is theoretically approved that a correlation coefficient takes any value between and including -1 and +1. When a value is close to -1. It is referred that the two variables are moving in the opposite directions. On the other hand, when a correlation coefficient value is closer to +1, it is denoted that the variables are moving in the same direction and by exactly the same amount. Finally, when the correlation coefficient is in the middle, where the correlation coefficient value is zero, it is referred that the two variables are moving completely independently from one another

In the Table -1, the correlation between variable Y and variable X1 is  $(r) = 0.399$  and  $(p = 0.000)$ . It is also confirmed that the level of significance is at 1%. Thus, this shows that there is a positive relationship between variable Y and variable X1. Likewise, it is also found that at 1% level of significance, the variables - (Y, X2), (Y, X3), (Y, X4) (Y, X5), (Y, X6), (Y, X7) and (Y, X8) are in positive correlation.

Furthermore, a positive correlation also exists between variable Y and variable X9, at the 5% level of significance.

The outcomes of the correlation examination impart significant bits of knowledge and useful plans to the destination managers and advertisers. The results infer that, if the destination enhances the nature of travelers' attractions and other steady items and administrations, the tourists' fulfillments will be enhanced and the other way around. The circumstance is comparable for the reliant variable and all other watched free factors of the model. For instance, there is a positive connection between behavior of staff and the nature of foods and refreshments supply. In this manner, the hoteliers can take activities like endeavor additionally preparing and advancement training for the staff, presenting various techniques for representative inspiration, enrolling high gifted and taught workers, which will build the nature of sustenance and refreshments supply, and the other way around. The change of one destination related components (e.g. behavior of staff) all the while enhances the sightseers' fulfillment identified with other destination related components (e.g. nature of the food and beverages) and the other way around.

**i. Multiple Regression Analysis**

Multiple regression analysis helps to determine the relationship between the dependent variables and independent variables from a closer perspective. In this research, the independent variables are the factors associated with the destination and the dependent variable is the level of satisfaction of the tourist's visiting Cox's Bazar. To explore the

relationship between the variables, multiple regression analysis has been conducted between variable Y and variables X. The following tables of model summary and ANOVA (b) is showing the outcomes which are followed by a brief description.

**Table 2A: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.561(a)	0.314	0.0184	0.09	0.5976

**Table 2B. ANOVA(b).**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Significance</b>
Regression	22.793	9	2.399	6.598	.000(a)
Residual	56.945	295	.348		
Total	79.738	314			

From the above tables, it is determined that F value = 6.598 and  $p = 0.000$ . Thus it is confirmed that a multiple regression exists between the two variables X and Y at 1% level of significance. The R square value calculated from is model is,  $R^2 = 18.4\%$ , which is quite reasonable for verifying the consistency of data derived from the Likert Scale.

So, from the overall calculations it is concluded that a positive correlation and regression model exists between the perceptions of the tourists of Cox's bazar and the level of satisfaction derived during their stay at the destination, at 1% level of significance.

## **ii. Determinants of Tourists' Perception and Satisfaction**

At first we identified the nine factors that influenced tourist's perception. Subsequently the factors have been verified through multiple regression analysis that by how much the factors affects the level of satisfaction of the tourists during their stay at Cox's Bazar sea beach.

**Table 3. Results of the regression analysis to determine the tourist's level of satisfaction at Cox's Bazar based on regression scores.**

<b>Dependent Variable</b>	<b>The level of satisfaction of the tourists during their holiday at Cox’s bazar</b>		
<b>Independent Variables</b>	<b>9 factors that represents the perception of the tourists regarding the services consumed at the destination.</b>		
Multiple R = 0.560 R2 = 0.314 Adjusted R2 = 0.277 Standard Error = 0.5977 F – ratio = 6.598 Significance P = 0.0000			
<b>Independent Variables</b>	<b>P</b>	<b>R square Explained</b>	<b>Beta, b</b>
Tourists Attractions (X1)	0.0000	0.194	0.333
Accommodation & Entertainment (X2)	0.0000	0.217	0.319
Food & Beverages (X3)	0.0000	0.233	0.282
Behavior of Staff (X4)	0.0000	0.214	0.327
Safety & Security (X5)	0.0000	0.174	0.239
Guide Services and Information Supply (X6)	0.0000	0.169	0.186
Price Levels (X7)	0.0000	0.187	0.299
Nature of the Selling Products and Behavior of the Vendors (X8)	0.0028	0.165	0.249
Infrastructure and Super-structure facilities (X9)	0.0081	0.126	0.180

In the table 3, the results of regression analysis have been demonstrated. The outcomes show that the coefficient of determination, R square is 0.314.

The destination associated factors showed an acceptable result denoting that the tourists' are quite satisfied with the products and services offered by Cox's Bazar.

Water-based tourism activities are the most emerging tourism destinations and phenomena in the world. For many reasons tourists also conduct this kind of touristic activities in the lakes, sea- beach, rivers, canals etc. The current study identifies the tourists' perception towards water-based tourism activities in the Cox's Bazar sea shore.

From the theoretical point of view water-based tourism has been clarified through literature review to get an insight about the water related activities. From the study it is clear that both positive and negative attributes are prevailed about water-based tourism in the Cox's Bazar sea beach. Some favorable and unfavorable features are seen towards the tourists' perception on water-based tourism activities. Some suggestions have been made by the policy makers, tourism planners and entrepreneurs and the unfavorable features should be improved in the Cox's Bazar sea shore. Current facilities and services in the beach areas need to be improved and tourist need to be encouraged to improve their interest to visit the Cox's Bazar and engage themselves in water related activities.

The study showed positive tourists' perception towards water-based tourism regarding some variables like natural beauty and environment, facilities in the Cox's Bazar sea beach, hospitality, water related activities etc. On the other hand tourists' hold some unfavorable perceptions towards safety and security facilities, sanitation and hygiene facilities, first aid services are remarkable. So, tourism planners, policy makers and stakeholders need to make strategic marketing based on these findings during the conduct of the research. They need to improve the safety and security, sanitation and hygiene in the Cox's Bazar sea area for marketing and promoting water-based tourism. During the planning process they should be careful so that the biodiversity, flora and fauna are not get polluted and sea beach areas get hampered due to water-based tourism activities performed by the tourist.

The current research indicates that there is a statistical significance in different tourists' perception towards water-based tourism in respects of respondents' age, gender, income, educational background, and profession on some facilities on Cox's Bazar. These findings are helpful for tourism planners, practitioners and stake holders for proper planning and marketing water-based tourism. Key tourism players should use differentiated marketing strategy and market segmentation for branding it as a new dimension of tourism in Bangladesh.

From above it is evident that all these activities should be implemented effectively in Cox's Bazar beach area. The tourism planners should make some promotional campaign for further promoting water-based tourism. For this reasons government, non-government, NGOs etc. need to work in body to promote water-based tourism.

## **6. Conclusion**

Finally, it can be said that Bangladesh has enough natural water based attractions which can be easily turned into tourist attractions with low level of investment. As our country is very small in size it is not possible for us develop tourism infrastructure like USA, China, India, Brazil, Canada etc. big countries. Those countries are very big in size and they have diversified geography. These types of facilities are not available in our country.

So that we have to try use our natural attractions in a diversified way. Developing water based tourism is one of the best options in that case. We should maximize the use of available water resources. We can also include some water related activities also. Recently a huge area in the sea has been included in our country's boundary. The government authority should make some plans regarding developing marine tourism in that area. It is sure that the expansion of water based tourism will add more value to Bangladesh as a tourist destination. As we have different types of water resources we can provide diversified experience to the tourists.

In the study area, water-based activities like scuba diving, water rafting, horse riding alongside the sea beach area, marine drive could be attractive for the tourists. Fire camp at the night and fishing facilities could also attract the visitors and provide them relaxation. Some other recreational activities like sea beach hand ball and volley ball can provide pleasure too, as there are huge tourists traveling in the study area in peak seasons (35,00,000 per year). Motor or sail driven boating facilities, Z-ski (driving small playing vehicles) and surfing can also create appeal for the visitors at the destination area.

The prospects of water-based tourism development in Cox's Bazar sea beach are very promising. It is the longest and most visited tourist destination in the world. The study shows the mixed perceptions of tourist towards water-based tourism in Cox's Bazar. The tourists' favorable variables are natural and scenic beauty of the beach, hospitality and other facilities in the research findings. Some unfavorable findings are safety, security, sanitation and hygiene and other facilities. The tourism planners and policy makers should work together for promoting water-based tourism where some items are poor. The available facilities for water tourism need to be introduced in both local and foreign tourist destinations because the beauty of water and historic dimensions would attract recreationalists and tourist to a great extent. But water-based tourism is not without challenges too. These obstacles need to be overcome providing recreational, leisure, and water activities for the tourists in the Cox's Bazar sea beach. Moreover, the paper has a scope of future research on water-based tourism in beach areas i.e. Kuakata, St. Martin Island, Potenga and other sea beaches of Bangladesh.

## **7. Future research**

The current study tries to find out the tourists' perception towards water-based tourism in Cox's Bazar sea beach. For the research purpose data were collected from the respondents traveling and living in Cox's Bazar city. This has been tried to find out how tourists' perceive water tourism in the sea shore. In the near future, research will be conducted on collecting from a large source of sample and covering a broader area.

Water-based tourism activities could play an important role for the adventure tourist and contribute in the economy. So the next research would be able to find out how significant it is and how this significant tourism activities be branded largely.

## References

- Afroz, N. N., and Hasanuzzaman, M. (2012). Problems and Prospects of Tourism in Bangladesh Bandarban District Case, *Global Journal of Management and Business Research*, 12(23), pp 1-7.
- Ahammed, Sheikh Saleh., (2010). Impact of Tourism in Cox's Bazar, Bangladesh, Master Thesis, Master in Public Policy and Governance Program, Department of General and Continuing Education, North South University, Bangladesh.
- Chheang, V. (2011). Angkor Heritage Tourism and Tourist Perceptions. *Tourismos: An International Multidisciplinary Journal of Tourism*, Vol. 6, No.2, pp.213-240
- Cole, S. (2012). A Political Ecology of Water Equity and Tourism, A Case Study From Bali, *Annals of Tourism Research*, 39(2), pp-1221-1241.
- Curtis, J. A. (2003). Demand for Water-based Leisure Activity, *Journal of Environmental Planning and Management*, 46(1), pp. 65-77.
- Dignam, D. (1990, March 26). Scuba diving among mainstream travelers. *Tourism and Travel News*.
- Gnanapala, W.K. A. (2015). Tourists Perception and Satisfaction: Implications for Destination Management, *American Journal of Marketing Research*, 1 (1), pp- 7-19. <http://www.aiscience.org/journal/ajmr>
- Islam, M. M. (2015). Development of Authenticity in Perspective of Tourism in Bangladesh, Bachelor's Thesis, Centria University of Applied Sciences, Degree program in Tourism. <http://theseus.fi/bitstreams/handles/10024/96858/Thesis%20final.pdf?sequences=1>
- Jennings, G. (2007). *Water-Based Tourism, Sport, Leisure, and Recreation Experiences*, Oxford: Butterworth-Hein, emann, p. 10.
- Jennings, G. (2003). Marine tourism. In S. Hudson (Ed.), *Sport and adventure tourism* (pp. 125-164). New York: Haworth Hospitality Press.
- Khondker, B. H., & Ahsan, T. (2015) BACKGROUND PAPER ON TOURISM SECTOR
- Morrissey, K., and Moron, C. (2013). A Socio-Economic Study of Marine Based Water Activities in the West Ireland, Working Paper Series, pp. 2-6.
- Mamun, M. A. A., Hasan, M. K., & Hossain, S. A. K. M. (2013). Image of Cox's Bazar Beach as a Tourist Destination: An Investigation, *International Review of Business Research Papers*, 9 (5), Pp. 122 – 138
- Moretaza, T. (2018, January 26). Domestic tourism on the rise. *The independent*. Retrieved: September 24, 2019 from: <http://www.theindependentbd.com/post/134461>



- Navrátil, J., Pícha, K., & Navrátilová, J. (2010). Visitors to water-based attractions-relations between motivation and satisfaction, *Universitas Ostraviensis*, XXII. pp. 595-599.
- Nowreen, S. and Mohiuddin, M. (2018). Potentials of Sustainable Tourism Development to Meet SDGs in the Disaster-prone Coastal Areas of Bangladesh: A Study on Cox's Bazar Sadar Upazila, *Environment and Sustainable Development in Bangladesh: Geographical Perspectives (eds.)*, Dhaka University Press: Dhaka
- O'Mahoney, C., Gault, J., Cummins, V., Kopke, K. and O'Suilleabhain, D. (2009). Assessment of recreation activity its applications to integrated management and spatial planning for Cork Harbour, Ireland, *Marine Policy*, 33(4), pp. 930-937.
- Rahman, K. F. and Yeasmin, S. (2014). Village Tourism as Sustainable Development Alternative: Empirical Evidence from Mawlynnong, the Clesnest Village in Asia, *ASA University Review*, 8(1).
- Rahman, M. L., Hossain, S. M. N., Miti, S. S., and Kalam, A. K. M. A. (2010). An Overview of Present Status and Future Prospects of the Tourism Sector in Bangladesh, *Journal of Bangladesh Institute of Planners*, Vol. 3, pp. 65-75.
- Rio+20: National Report on Sustainable Development pp. 74-75. <https://sustainabledevelopment.un.org/content/documents/981bangladesh.pdf>
- Robbins, S.P. & Coulter, M. (2005). *Management*. New Delhi: Prentice Hall.
- Robbins, S.P. (2005). *Organizational Behavior*. New Jersey: Prentice Hall.
- Saha, J. K. (2014). Sustainable Development in Ecotourism: Perspective of Bangladesh, Thesis Centria University of Applied Sciences, Degree Programme in Tourism.
- [https://theseus.fi/bitstream/handle/10024/71670/Sustainable%20Development%20in%20ecotourism\\_Perspective%20of%20Bangladesh.pdf?sequence=1](https://theseus.fi/bitstream/handle/10024/71670/Sustainable%20Development%20in%20ecotourism_Perspective%20of%20Bangladesh.pdf?sequence=1)
- Thapa, B. J., Confer, J., and Mendelsohn, J. (2004). Trip motivations among water-based recreationists, Working Paper of the Finnish Forest Research Institute. <http://www.metla.fi/julkaisut/workingpapers/2004/mwp002.htm>
- Unb, Dhaka. (2016, December 26). Tourist flow peaks at Cox's Bazar, *The Daily Star*, Retrieved: September 24, 2019 from URL: <https://www.thedailystar.net/city/tourist-flow-peaks-coxs-bazar-1335667>
- Vasvári, M., Boda, J., Dávid, L., and Bujdosó, Z. (2015). Water-Based Tourism as Reflected in Visitors to Hungary's Lakes, *GEO Journal of Tourism and Geosites*, 15(1), pp. 94-106.
- Vasvári, M., and Martonné, K. E. (2015). Difficulties of the Tourism Development in the Middle Tisza (Tisa) Region, Hungary, *Studia Ubb Geographia*, LX, 1, pp. 145-156.
- <https://www.lonelyplanet.com/news/2017/03/15/luxury-cruise-ship-docks-bangladesh-first-time/>
- <http://www.dhakatribune.com/bangladesh/2017/02/22/silver-discoverer-arrives-75-tourists/>
- Taylor, C. (2014). Towards a New Tourism: A New Tourism Manifested Architecturally in Duisburg, Germany, A thesis submitted to the Faculty of Graduate and Postdoctoral Affairs in partial fulfillment of the requirements for the degree of Master in Architecture, Carleton University Ottawa, Ontario.

**Appendix 1:****Table: Demographic Profile**

<b>Descriptions</b>	<b>Number</b>	<b>(%)</b>	<b>Descriptions</b>	<b>Number</b>	<b>(%)</b>
<b>Respondents'</b>			<b><u>Marital Status</u></b>		
<b><u>Gender</u></b>			Married	90	45
Male	120	60	Unmarried	75	37.5
Female	80	40	Others	35	17.5
Total	200	100	Total	200	100
<b><u>Respondent's Age</u></b>			<b><u>Respondent's</u></b>		
Below 20 years	5	2.5	<b><u>Profession</u></b>		
From 21 to 30 years	120	60	Student	60	30
From 31 to 40 years	35	17.5	Businessman	30	15
From 41 to 50 years	22	11	Private service holder	40	20
From 51 to 60 years	10	5	Govt. service holder	20	10
Above 60	8	4	Others	50	25
Total	200	100	Total	200	100
<b><u>Educational</u></b>			<b><u>Monthly Income</u></b>		
<b><u>Background</u></b>			Below TK 10,000	20	10
Primary	20	10	10,001-25,000	55	27.5
Secondary	45	22.5	25,001-50,000	80	40
Higher Secondary	65	32.5	50,001-75,000	15	7.5
Graduate	50	25	75,001-100,000	20	10
Post-graduate	15	7.5	Above 100,000	10	5
Others	5	2.5	Total	200	100
Total	200	100			