DOMESTIC TOURISTS’ MINDSET ON ENVIRONMENTAL COMPONENT OF RESPONSIBLE TOURISM MANAGEMENT: A CASE STUDY ON COX’S BAZAR, BANGLADESH

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Abstract: Perception, attitude, and behaviour of domestic tourists are the major influential components for ensuring responsible development and/or management of a tourists’ destination. However, in Bangladesh, no study exists yet, which tried to find out domestic tourists’ mindset towards the environmental component of Responsible Tourism Management. So, this study was a step to fulfill the identified gap, as well as, an initiative to add the empirical findings to existing Responsible Tourism literature. The present study elucidates how Cox’s Bazar, Bangladesh can be preserved and managed by addressing the environmental issues. Based on the 385 sample respondents, the present study found that, by applying environmental sustainability measures, tourism in Cox’s Bazar can be potentially less harmful than continuing to develop in an unchecked manner. Moreover, it discovered that tourists as a key stakeholder in the tourism development and management model are concerned about the environmental impacts and cares about the environmental sustainability of the Cox’s Bazar.

Keywords: Domestic Tourist, Sustainable Tourism, TBL, Components, Responsible Tourism Management, and Environmental Responsibility.

INTRODUCTION
There is a myth that most of the tourism in the world is international by nature but in reality, the tourism industry worldwide is primarily dominated by domestic tourism (Cooper et al., 2008). A study conducted by the World Tourism Organization (UNWTO) in 2008, documented that in 2005, total number of the domestic tourists was 4,000 million worldwide compared with the 750 million of international tourists (UNWTO-UNEP-WMO, 2008). The UNWTO outlined that in 2010, the total number of international tourist arrivals was 940 million globally, on the contrary, there is common conformity within the industry that by all account, domestic travel and tourism is more significant and generates up to

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ten times more arrivals than the international market (WTTC, 2011). 
Supportively, around the world, the 10:1 ratio of domestic versus international 
tourist concurs with this and is outlined by many scholars (Middleton et al., 
2009; Eijgelaar et al., 2008; Ghimire, 2001). Moreover, Bigano et al. (2007) and 
Neto (2002) documented that world-wide domestic tourism accounts for 80% of 
all tourism activities. According to the World Travel and Tourism Council 
(WTTC) in 2012, 70.7% of world’s direct travel and Tourism GDP was 
generated from domestic travel and tourism spending.

The UNWTO forecasted that the growth of domestic tourism will be particularly 
significant in many developing countries over the next 20 years (Mazimhaka, 
2007). Similarly, United Nations (2007) stated that domestic tourists appeared as 
a significant market for many developing countries, particularly in the sub-region 
of North-East, South, and South-East Asia (ESCAP, 2007). Furthermore, in 2012 
in the South Asia, $93.01 billion of domestic travel and tourism spending 
generated 80.5% of the direct travel and tourism GDP of that region (WTTC, 
2013). Different scholars (Mazimhaka, 2007; Gladstone, 2005; Scheyvens, 2002; 
Ghimire, 2001) depicted that in many developing countries, the key factors 
behind the surge of domestic tourism are the ascending middle class with rational 
prosperity, higher disposable income, and their enhanced wish to travel. 
Moreover, the UNWTO (2013a) states that Asia’s growth of the travel and 
tourism industry is led by increasing wealth among its middle classes and their 
enormous participation in domestic tourism. These are also true for Bangladesh. 
Domestic tourism in Bangladesh is steadily growing with an average annual rate 
of about 25%. Major reasons behind this growth is the rising trend of the middle 
income population with higher education, higher disposable income, and their 
growing interest to participate in tourism and leisure activities (Katalyst, 2013). 

Mazimhaka (2007), Scheyvens (2002), and Dieke (2000) clarify that developing 
countries who are looking for alternative, less exploitative types of tourism 
development should encourage domestic tourism rather than multinational capital 
dominated international tourism. Mazimhaka (2007) and Nabutola (2005) argue 
that, although international tourism is growing in many developing countries, 
development of the domestic tourism is much more helpful for bringing stability 
in the volatile industry and sustainable development by bridging seasonality, 
creating job opportunity, and ensuring a stable service sector. Similarly, 
Cornellissen (2005)said that, “travel patterns of the domestic tourists do not 
imitate the extreme seasonal variation noticeable for the international market”. 
Moreover, other scholars (Eijgelaar et al., 2008; Mazimhaka, 2007; Nabutola, 
2005; Ghimire, 2001) claimed that stronger ST development is highly dependent 
on the planned development of domestic tourism.

Despite showing steady and healthy market growth, Bangladesh is far behind in 
the organized development of its domestic tourism sector. Consolidated 
information acquired from different destinations indicates the size of the 
domestic tourists market of Bangladesh is quite big (Siddiqi, 2013). Since the
1990 Cox’s Bazar (CB) in Bangladesh, which is 120 km in length and the world’s largest uninterrupted natural sandy sea beach, (UNWTO, 2013b; BPC, 2013; BBC, 2012), faced a surge of growth in its tourism development. It is the prime and the most visited tourist destination in Bangladesh (Rahman, 2010; Hossain, 2005; Hassan, 1998). It is often known as the tourist capital of Bangladesh (Tuhin and Majumder, 2011). Continuous investment by the government and private sectors on development of tourism at CB makes the location a prime tourist destination in Bangladesh (Ahamed, 2010; Rahman, 2010). In 2005, more than 700,000 tourists visited CB where about 90% of them were domestic tourists (BPC, 2006). Moreover, it started to reach its optimum level of popularity as a tourist destination for both domestic and foreign tourists in 2007, when the site successfully passed the first round of the ‘New Seven Natural Wonders of the World Competition’ and became one of the 77 top contestants among the 440 destinations of 220 countries of the world. Further, it has been selected as one of the seven natural wonders of the Asia (The New Seven Natural Wonders, 2013; The Daily Star, 2011; Islam, 2008). In 2012, about 1.3 million tourists visited CB and its adjunct areas (The Daily Prothom Alo, 2013; The Daily Star, 2013) where approximately 95% of them were domestic tourists (Howlader, 2013).

Due to its potential of making significant positive impacts on the local economy, society, and environment; development of sustainable tourism (ST), responsible tourism (RT) and their useful practices are the most concerned and discussed topic in the recent tourism study (Spenceley, 2008). Numerous studies have already been conducted on the above areas in many parts of developed and developing countries to find out the attitudes of specific stakeholder(s) towards ST and RT development and/or management. However, in spite of being a major stakeholder in ST and RT development and management process (Dodds et al., 2010; Stanford, 2008; Byrd, 2007), the tourists’ attitude towards sustainable or responsible tourism development and/or management has been considered by very few studies (Daud and Rahman, 2011; Dodds et al., 2010; Stanford, 2008; Kang and Moscardo, 2006). The UNWTO Commission for South Asia (2012) reported, “In the South-Asian region, domestic tourism is ignored both as an area of development and as a subject of research” (UNWTO, 2012:1). Moreover, in Bangladesh, no study exists which tried to find out domestic tourists’ or other stakeholders’ mindset towards environmental component of ST or RT. So, this research is a step to fulfil the identified gaps, as well as, an initiative to add the empirical findings to existing RT literature.

LITERATURE REVIEW

Role of Domestic Tourism and Domestic Tourist in Environmental Sustainability: Sing (2009) stated that in developing countries very few persons enjoy the chance to travel except the places within their own country of residence. Many scholars (Gunawan, 1996; Oppermann, 1992; Teuscher and
Lang, 1982) suggested that for developing countries the importance of domestic travel and tourism might not be greater but often it is equal to international tourism. Moreover, for developed or developing countries, domestic tourism plays a lifeblood role for their tourism industry (Jafari, 2003). Ghimire (2001) argued that, particularly in developing countries, if domestic tourism is not properly planned and managed better than international tourism, there is bigger possibility of ecological disasters and of deteriorating traditional livelihoods. Similarly, other scholars (Daud and Rahman, 2011; Sing, 2009) suggested that perception, attitude, and behaviour of domestic tourists are the major influential component for ensuring sustainable development and management of tourism (environmentally, economically, and socially).

Scheyvens (2007) argues that in terms of attaining and upholding the environmental sustainability of a destination; domestic tourism is more noteworthy compared to international tourism. Demonstrating the transportation issue she clarifies, international tourists hold greater energy demands on scarce fuel resources than domestic tourists and results higher Carbon dioxide (CO₂) emissions. Supportively, Becken et al. (2003) documented that in the New Zealand, compared with domestic tourists, energy usages are 5 times higher by international tourists. Moreover, in the case of developing countries where domestic tourists travel with tighter budgets than international tourists, they demand and consume less resources, such as cold showers instead of hot baths, fans in place of air conditions, resulting less pressure on energy supplies and fresh water (Scheyvens, 2007; Becken et al., 2003).

**Responsible Tourism Management and Responsible Tourist:** Since 1970s, RT started to be considered as one of the ‘new forms of tourism’ and placed itself into the alternative tourism paradigm (Miller and Twining-Ward, 2005). Later in 1989, to classify the activities and role of ‘alternative tourism’, the UNWTO replaced the term ‘alternative tourism’ with RT (Stanford, 2008; Blackstock et al., 2008) and all agreed on the definition of RT as “all forms of tourism which respect the host’s natural, built, and cultural environments and the interest of all parties concerned” (Smith, 1990 quoted in Stanford, 2008). Fennel (2006) argues that ‘alternative tourism’ encompasses ethical, accountable, and responsible behaviour.

In 2002, at the Cape Town Conference, a perspective definition of RT was developed. According to the Cape Town Declaration (2002) RT is “an approach to the management of tourism aimed at maximising benefits (economic, social, and environmental) and minimizing costs to destination” (Responsible Tourism Cape Town, 2011). Moreover, it involves local communities’ participation in economic activities and decision making, enhancing local communities (environmentally, economically, and socially), making a contribution to conservation, offering access to everyone, and stimulates connection and respect between guests and hosts (ICRT, 2013). In addition, the Cape Town declaration (2002) also stated RT as “to use tourism to make better place for people to live in
and better place for people to visit” and identified seven major characteristics for RT (The Responsible Tourism Partnership, 2013). Further, following the Triple Bottom Line (TBL) model, the Cape Town Declaration (2002) provided guiding principles for economic, social, and environmental responsibility which are indicative of what needs to be done for any destination wants to develop and practice RT (Goodwin, 2011).

Other scholars (Spenceley et al., 2002; Frey and George, 2008) say RT is about taking responsibility for achieving sustainable development through tourism. It is not about long check lists rather it is about identifying the economic, social, and environmental issues which matter locally and tackling them (Spenceley, 2008). Goodwin (2013) says that RT is about taking responsibility for making tourism more sustainable. The aspiration of RT is to use tourism rather than to be used by it. Blackstock et al. (2008) argue that “RT focuses on the choices made by visitors and their hosts; emphasising behaviour in order to change tourism outcomes thus, RT provides a particular lens by which to consider how to improve the sustainability of tourism”. Reid (2003) says that RT emphasizes the capability of tourists to make differences throughout their activities directed by the values and principles of RT. Similarly, Hall and Brown (2006) say, RT offers practical thought and judgement by tourists. Therefore, in the light of RT, a responsible tourist can be defined as a tourist who protects the environment (flora, fauna, landscapes), respects local cultures (tradition, religion, heritage), benefits local communities (economically and socially), conserves natural resources (water, energy) and minimizes pollution (noise, waste, and congestion) (Goodwin, 2011; Spenceley, 2008).

**Tourists’ Attitudes and Behaviour Towards Environmental Responsibility:**
There are relatively very few studies which investigate sustainable and/or RT from the perspective of domestic tourists, however, some of the recent studies are exceptions (Daud and Rahman, 2011; Deng and Bender, 2007; Kang and Moscardo, 2006; Dinan, 2003). It is important to remember that some of the studies and facts outlined in this section are not focused completely on the domestic tourism market. However, attitudes, perceptions, and behaviours that different nationalities’ tourists possess towards environmental responsibility of ST and/or RT practices, do provide the sense and light to identify the variables that are useful to conduct the current study. So, it is fairly reasonable to include them in the literature and further consider them to point out appropriate attitude determinants for the current study.

In 2002, English Tourism Council (ETC) conducted a study to find out attitudes of British domestic markets to the ST management (Dinan, 2003). Major findings of this study relevant with environmental responsibility is given below-
Later, many scholars (Kline, 2012; Daud and Rahman, 2011; Deng and Bender, 2007; Budeanu, 2007; Kang and Moscardo, 2006; Chafe, 2005) in their studies on ST and/or RT from domestic and/or international tourists’ perspective covered the above mentioned environmental issues along with other context specific determinants. Therefore, for the current study, determinants related with environmental responsibility of these studies have been considered to outline key variables. Further, relevant key variables have been used to develop the survey questionnaire and to measure the attitudes of domestic tourists of Bangladesh towards the environmental responsibility of RT management.

Martin (2001) in his study on British tourists found that most of the British tourists think it is fairly or very important that their holidays don’t damage the environment (over 87%). Moreover, 76% of British tourists felt “it is important that their trip benefit the people living at their destination” (Goodwin and Francis, 2003) and 45% of British tourists are willing to pay more for their trip if they are assured that part of their money will be used to preserve the local environment and to minimize the harmful environmental effects of tourism (Goodwin, 2001). In the U.S.A. more than 75% of travellers believed “it is important that their visits don’t harm the environment” (Spenceley, 2008); 66% of the mature population are engaged with environmentally responsible travel and 61% of travellers believed “experience is better when their destination
preserves its natural, historic and cultural sites” (CREST, 2005). Study found that 90% of British, 65% of American, and 63% of Australian tourists believed at a destination, it is part of hotels’ and other tourism businesses’ responsibility to actively defend and support the environment and local communities including investing in local schools and hospitals (IHEI, 2002). Moreover, at a domestic market level, 65% of British and Australians and 26% of Americans demanded that hotels and other tourism businesses should engage in good environmental practices (reducing waste, natural resource use, and energy consumption) along with supporting local communities’ environmental and social causes (IHEI, 2002). In Australia’s domestic tourism market, more than 60% of tourists and travellers are conscious about the negative impacts and threats of tourism on the environment (Hillery et al., 2001).

A large number of studies (Dodds et al., 2010; Deng and Bender, 2007; Becken, 2007; Baddeley, 2004; Scott et al., 2003; Lindsey and Holmes, 2002; Martin, 2001) have already been conducted in different destinations to examine whether or not visitors are willing to contribute to nature conservation; environmental, social, and other options; how much they are ready to contribute, and their expectations as to viewing the results of these contributions. Similarly, Manaktola and Jauhari, (2007) conducted a study on the domestic market of India to find out the consumers’ behaviour and attitudes towards the green practices of the Indian lodging industry and if they would pay for these practices. In Thailand, a study of the domestic market found that tourists are not willing to pay to uphold and/or improve the environmental quality of an area however, they are ready to pay extra for improving the quality of services (Baddeley, 2004). On the contrary, Deng and Bender (2007) provide evidence that domestic tourists are more willing to pay bed tax and want to pay more for higher quality services than international tourists. Another study conducted by Law and Cheung (2007) found that Chinese domestic tourists are not fully aware about current environmental issues but they are willing to pay an extra tax to help the country fund initiatives for improving the sustainability of different destinations in China.

Tourists’ environmental and social awareness and their sustainable tourist behaviour scenarios are completely different and more favourable in the case of Europe and the West. Martin (2001) found that over 83% of British tourists are willing to pay up to 4% extra for their holiday if it went towards environmental conservation, improvement, and other social options. Similarly, Chafe (2005) found that about 70% of Danish tourists are willing to pay extra to stay in accommodation which has eco-labels and is engaged in green practices. Moreover, over 44% of German and 65% of Italian tourists consider satisfactory environmental performance of their accommodations to be the significant influential factor for their satisfactory holidays (CREM, 2000).

**Structural Models of Consumer’s Attitude Formation and Measurement:** Psychologists are continuously trying to construct models to better understand and explain the relationship between attitude and behaviour with their associative
components (Schiffman and Kanuk, 2010). Most of these models (attitude-toward-object model, attitude-towards-product model, attitude-toward-ad model, attitude-toward-buying model etc.) are designed for specific subject areas. Similarly, other Multiattribute attitude models (Theory of Planned Behaviour (ToPB), Theory of Reasoned Action (ToRA), and Theory of Trying) are particularly designed to better explain and predict consumer’s actual behaviour or action. In these models, attitude is only one component along with other determinants. Therefore, none of these models directly match with the current study’s nature. However, due to the vast popularity among scholars, authors, and applied researchers for conducting similar type of studies like the current study, as well as, having some fundamental applicable principles, both the Tricomponent and Multiattribute (attitude-toward-behaviour) structural models have been considered for the current study.

According to the Tricomponent attitude model (Figure 1), attitude is comprises of three major components: cognitive, affective and conative (behavioural) components. The Tricomponenet model is particularly helpful in researching attitudes, as this model provides a useful structure for formulating questions that cover each component, which allows a researcher to assess attitudes holistically. (Schiffman and Kanuk, 2010; Blackwell et al., 2006; Steven et al., 2006; Grimm, 2005). Here, the cognitive component comprises of knowledge and the beliefs of consumers pertaining to an object or an issue, such as- ‘environmental practices of hotel and resorts’ (Evans et al., 2009). The affective component of the model denotes consumer’s likes or dislikes relating to an object, issue (Foxall et al., 1998) or a person’s negative or positive emotions and feelings towards the characteristics of the concerned issue or object (Solomon, 2009) such as- ‘I like to use accommodation and restaurants that are engaged with good environmental practices’. The conative (behavioural) component explains a consumer’s intention to act (Pelsmacker et al., 2010). It explains the relationship between consumer’s probable future behaviour, supported by what they know (cognitive) and what they feel (affective) about the concerned object or issue (Blythe, 2008).

![Figure 1: Tricomponent Attitude Model](source.png)

However, many scholars (Evans et. al., 2009; Blythe, 2008; Hoyer and MacInnis, 2007; Blackwell et al., 2006) critique the tricomponent attitude model by justifying that a consumer’s probable future behaviour or intentions (conative
component) is actually the output of consumer’s attitude. These scholars explain that consumer’s attitudes are the result of consumer’s beliefs and knowledge (cognitive component) and his/her feelings and emotions (affective component) for the concerned issue or object (Figure 2). Moreover, other most recent multiattribute attitude models- ToRA, and ToPB also incorporated attitude as the output of consumer’s cognitive (beliefs) and affective (feelings) state of mind (Schiffman and Kanuk, 2010; Fishben and Ajzen, 2010). Therefore, it is reasonable to incorporate only cognitive and affective components of the tricomponent attitude model when constructing the conceptual model to measure the attitude of domestic tourists’ of Bangladesh towards environmental component of RT management.

**Figure 2: The Relationship between Consumer Beliefs, Consumer Feelings, Consumer Attitudes, Consumer Intentions, and Consumer Behaviour**

![Diagram](source: Blackwell et al. (2006)).

The attitude-toward-behaviour model (figure 3) explains a consumer’s strength of beliefs regarding specific actions which leads to specific behaviour, shaping the attitude of that consumer. Here, strength of beliefs is the function of cognitive and affective state of the consumer mind, and these states of mind are formed and work similarly like tricomponent and other multiattribute attitude models (Burnkrant et al., 1991; Ajzen and Fishbein, 1980). Further, Shwu-Ing Wu (2003) modified the model by incorporating consumer characteristics. He proved that along with strength of belief, consumer characteristics (socio-demographic, lifestyle and psychographic, personality) can significantly change the actual attitude toward behaviour.

**Figure 3: Attitude-Toward-Behaviour Model**

![Diagram](source: Shwu-Ing Wu (2003))
Therefore, after critically examining the earlier attitude formation and measurement models, both the tricomponent and attitude-toward-behaviour models were considered to conduct the current study. These two models have been incorporated to develop the conceptual model for measuring the attitudes of domestic tourists of Bangladesh towards the environmental component of RT management.

**OBJECTIVES**

The main objective of this research is to find out domestic tourists’ mindset on environmental responsibility of RT management at CB. The research also focuses on the following specific objectives:

1. To find out the significant influential variables through which domestic tourists’ attitudes towards environmental responsibility of RT has been formed and measure their level of influences.
2. To measure whether domestic tourists’ attitudes towards environmental component of RT vary due to socio-demographic variability and, if they do vary, then measure the magnitude of variability.
3. To draw conclusions and formulate recommendations about how different explaining variables of environmental responsibility should be considered by destination management to improve tourists’ positive attitudes towards tourism development at CB.

**RESEARCH QUESTIONS AND HYPOTHESES**

Considering the objectives of the research, the following research questions and hypotheses have been set for the study.

**RQ1:** How does domestic tourists’ attitude towards environmental responsibility of RT management have been formed?

**H_0:** There is no relationship existing among the attitude to environmental responsibility of RT and the respective cognitive, affective, and socio-demographic variables.

**H_1:** Attitude to environmental responsibility of RT is the function of the respective cognitive, affective and socio-demographic variables.

**RQ2:** Which variables have influence to shape the attitude towards environmental responsibility of RT management?

**H_0:** All of the explained independent variables have no influence on forming attitudes towards environmental responsibility of RT management.

**H_1:** The explained independent variables have different levels of influence on forming attitude towards environmental responsibility of RT management.

**RQ3:** Do domestic tourists’ attitudes to environmental responsibility of RT management differ according to terms of socio-demographic variables?
H₀: Socio-demographic variables have no influence on domestic tourists’ attitudes towards environmental responsibility of RT management.

H₁: Socio-demographic variables influence domestic tourists’ attitudes towards environmental responsibility of RT management.

METHODOLOGY

A mixed methodology approach recommended by many scholars (Zikmund et al., 2012; Ritchie and Goeldner, 1994) has been used to conduct the current study. The study of this emerging market started by applying a direct approach of exploratory research design, where, one major non-disguised method (in-depth interview) has been used to collect primary data at the initial level (Malhotra, 2010). An in-depth interview is an unstructured and direct way of obtaining information (Brech, 2002). At the initial phase of the research, in-depth interviews of 6 ST experts of Bangladesh have been conducted by the researcher (authors) to gain more insights and understanding about RT management and its environmental component under the context of Bangladesh and the case study site, CB. Moreover, opinions of the industry experts further has been considered to gain clear insights about key variables which are associated to form and explain the cognitive and affective mental stages of the domestic tourists regarding environmental component of RT management. Identified predictors by the industry experts in the in-depth interview phase, further cross checked with the literature and earlier studies, thus helped to outline the set of key variables that are relevant to the current study.

In addition, because the study is unique, one major covert method (observation) has been used for this study to assure that the right variables were identified in the exploratory phase (Kassem and Lee, 2004). Within the observation time frame of 3 days, the researchers observed domestic tourists at different time periods (holiday, weekend, weekday morning, afternoon, evening, etc.) in the designated case study place (CB). The researcher observed the flow of domestic tourists in order to, analyse and judge the socio-demographic characteristics of the population and their activities, in terms of environmental responsibility of RT management.

The UNWTO (1995a) in their technical manual on domestic tourism statistics mentioned that “visitor survey at tourist site is better suited for the estimation of domestic tourists and their characteristics in specific sites” (UNWTO, 1995a: 26). Similarly, Cooper et al. (2008) say one of the more effective methods used to study domestic tourists is the visitor survey, which can be conducted at popular tourist destinations or in areas where high levels of tourists’ activities are visible. Moreover, they state that information gained through the visitor survey on the domestic market at a specific site, leads to an estimated volume and value of tourism to the destination, profiling tourists and their visits, and eliciting opinions about the destination and associated attitudes. Therefore, following the
exploratory research phase, a descriptive research design (survey methods) has been used to collect primary data (through the questionnaire) from the target respondents (domestic tourists of Bangladesh) at the case study site (CB).

The target population are the domestic tourists (excluding the day visitors) of Bangladesh who were in the CB as part of their leisure, recreation and holidays; VFR; business and professional, and/or other tourism purposes during the 2 weeks data collection period at CB. The sampling frame of this study was consists of receptions, lobbies, lounges, and resting places in the hotels, resorts, and lodges; restaurants and cafes; and the main tourist spots (Laboni and Kalatali beach areas, Himchari, Inani beach, Ramu, Sonadia Island, Moheshkhali) in CB.

To ensure every respondent in the population had the equal chance to be selected as a sample, and to ensure population representative sample, probabilistic Stratified Random Sampling (SRS) has been used as the sampling technique. To ensure SRS sampling, every 10th respondent were was present at the receptions, lobbies, and resting places in the hotels, resorts, and lodges; restaurants and cafes, or passing the specified points in the main tourists spots (indentified in the sample frame)was approached for the study. Further, if the respondents were found eligible for the study (over 18 years of age and domestic tourists) and provided their consent, then field workers forwarded the survey questionnaire to them and collected the data.

As the size of the population was unknown, the following formula has been used to determine the sample size for study (Malhotra, 2010):

\[ n = p \times q \times \left(\frac{z}{e}\right)^2 \]

Where, \( n \) = Minimum number of statistically significant sample size
\( e \) = Tolerable error, (if +/-0.05% is allowed, the value of \( e \)=0.05).
Confidence level = 95%, so, \( z = 1.96 \) (Standard Normal distribution).
\( p = \) Proportion of the universe, which if unknown, the rule of thumb is to take p= 0.50. Therefore, \( q = 1 - p = 0.50 \)
\[ n = (0.5) \times (0.5) \times (1.96/0.05)^2 = 384.16 \approx 385 \]

The purpose of taking \( p = 0.50 \) is to obtain the highest number of samples in the study as if p is taken more or less than 0.50, the resultant sample size would be less than 385. Sampling was executed by administering the survey questionnaire in a face-to-face approach at the case study site (CB).

The survey questionnaire had two parts. The first part covered the questions regarding socio-demographic (Personal details) of the domestic tourists. The socio-demographic section covered the questions regarding gender, age, marital status, occupation, educational level, monthly average income, and residential area of a tourist. The second part of the questionnaire was designed to get detailed information about the attitudes of the respondents towards environmental component of RT management. This section covered 12 questions
about cognitive and affective states of mind regarding environmental responsibility. A five point Likert scale (2 = Disagree, 3 = Somewhat Disagree, 4 = Neutral, 5 = Somewhat Agree, and 6 = Agree) with one don’t know option (1 = Don’t Know) was used in this section to collect the attitudinal data. The Likert scale was used in this section as it is one of the most effective and popular scales for collecting attitudinal data through direct approach (McLeod, 2008; Bortholomew, 2006; Friedman, 2000; Ritchie and Goeldner, 1994). Structured (close-ended) questions have been used to collect the data. Data was collected from the popular tourist spots (Laboni and Kalatali beach areas, Himchari, Inani beach, Ramu, Sonadia Island, Moheshkhali) of the case study site during a 2 weeks period.

A series of methods have been used to analyse the data by using SPSS version 20.0. Firstly, descriptive statistics - frequency distribution and cross tabulation analysis have been conducted to profile the domestic tourists on the basis of their socio-demographic characteristics. Further, multivariate dependence data analysis technique - multiple regression analysis has been conducted to test the hypotheses and to find out the significant influential variables along with their level of influences that form domestic tourists’ attitude towards environmental component of RT management.

**Conceptual Model Development**

Based on the literature discussed in the earlier section and considering the objectives, research questions, and hypotheses of the current research, the following conceptual model (Figure 4) has been developed to measure the attitudes of domestic tourists in CB towards environmental component of RT management.

**Figure 4: Conceptual Model for Attitude Measurement**

![Conceptual Model for Attitude Measurement](image)

Source: Authors Contribution.
According to the proposed conceptual model, the estimation of the current attitudinal level of domestic tourists towards environmental responsibility has been measured with the help of cognitive and affective stages of mind because literature support that attitudes are formed by these two components. The cognitive element of environmental responsibility covered a domestic tourist’s mental images, his/her understanding, perception, and interpretations about the considered issue or object. The affective element of environmental responsibility covered the feelings or emotions a domestic tourist had about the observed issue or object. Furthermore, the socio-demographic characteristics of domestic tourists were incorporated into the model as they were highlighted as potential significant influential variables which form and influence the attitudinal level of a domestic tourist. Therefore, combined, they reflected the mindset of a domestic tourist towards environmental responsibility of RT.

To measure the relative influence of each independent variable on the dependent variable, multiple regression analysis has been used for this study. The following multiple regression model has been developed to measure the attitude towards environmental responsibility:

\[
Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \\
\beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \beta_{14} X_{14} + \beta_{15} X_{15} + \beta_{16} X_{16} + \beta_{17} X_{17} + \\
\beta_{18} X_{18} + \beta_{19} X_{19} + \epsilon_i \quad \text{(Equation 1)}
\]

Here,

\[
Y = \text{Domestic tourists' attitude towards environmental responsibility}
\]

\[
\beta_0 = \text{Constant, and } \beta_{1,2,3,...,19} = \text{Coefficients associated with independent variables.}
\]

\[
X_1 = \text{Gender}, X_2 = \text{Age}, X_3 = \text{Marital status}, X_4 = \text{Occupation}, X_5 = \text{Education}, X_6 = \text{Monthly average income}, X_7 = \text{Residential area}, X_8 = \text{Wild life conservation}, X_9 = \text{Environmental protection and development}, X_{10} = \text{Tourism businesses' environmental practices}, X_{11} = \text{Threats to endangered animals}, X_{12} = \text{Environmental pollution}, X_{13} = \text{Souvenirs made from animals}, X_{14} = \text{Set limits on tourism development}, X_{15} = \text{Money for nature conservation fund}, X_{16} = \text{Environmental damage results from visiting the place}, X_{17} = \text{Buying souvenirs made from animals}, X_{18} = \text{Donation to improve environmental quality}, X_{19} = \text{Paying extra to stay with accommodation that are committed to good environmental practices}, \text{and } \epsilon_i = \text{Error}.
\]

**Hypotheses Testing:** The hypotheses of the 1st research question (RQ1) can be tested using Coefficient of Correlation (R) and Coefficient of Determination (R²) values. If the values of the R and R² = 0 for the developed models, then it can be said that there is no relationship among the dependent and independent variables. If not, then we can say there are some relationships that exist among the variables, which means we can reject the null hypotheses and accept the
alternative hypotheses (Malhotra, 2010). A snapshot of the hypothesis test using R and R² value are given below:

\( H_0: R = 0 \) and \( R^2 = 0 \)

\( H_1: R \neq 0 \) and \( R^2 \neq 0 \)

On the other hand, the hypotheses of the 2\(^{nd}\) and 3\(^{rd}\) research questions (RQ2 & RQ3) can be tested using group parameters (βs) value of the developed regression model. In regression model, Standardized Coefficient (Beta, β) value of each of the independent variables is known as group parameter. Therefore, if the standardized coefficient (Beta, β) value of each of the independent variables is equal to zero (0) means, the independent variables have no effect on the dependent variable thus, the null hypothesis can’t be rejected. On the other hand, if β’s value associated with each of the independent variables is not zero, it can be said that the null hypothesis can be rejected thus, alternative hypothesis can be accepted (Zikmund et al., 2012; Malhotra, 2010). A snapshot of the hypothesis test using group parameters (βs) value:

\( H_0: \beta_1 = \beta_2 = \beta_3 = \ldots = \beta_n = 0 \)

\( H_1: \beta_1 \neq \beta_2 \neq \beta_3 \neq \ldots \neq \beta_n \neq 0 \)

Here, \( n \) = number of independent variables in a regression model.

RESULTS

Results of Hypotheses Testing: Statistical output of the constructed regression model (equation 1) is-

<table>
<thead>
<tr>
<th>Model Summary of Attitude towards Environmental Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Summary</strong></td>
</tr>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

The degree of strength is measured by coefficient of correlation (R) and the strength of association is measured by coefficient of determination (R²). Here, R = 0.852; and the value of R is close to +1, means that there is significant positive relationship existing among dependent and independent variables. So, we can conclude that the domestic tourists’ attitude towards environmental responsibility is highly correlated with the identified predictors. Moreover, the value of R² = 0.726; means that, 72.6% of domestic tourists’ attitude towards environmental responsibility is explained by the identified independent variables. Therefore, both the value of R and R² support to reject the null hypothesis of the first research question (RQ1).
Table 3: ANOVA Output of Regression Model of Attitude towards Environmental Responsibility

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>569.786</td>
<td>19</td>
<td>29.989</td>
<td>50.823</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>215.372</td>
<td>366</td>
<td>.590</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>785.158</td>
<td>385</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Attitude towards environmental responsibility
b. The regression model to measure the attitude of the domestic tourists towards environmental responsibility is significant at α = 0.05.

Table 4: Coefficients Output of Regression Model of Attitude towards Environmental Responsibility

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.571</td>
<td>.627</td>
<td>4.103</td>
<td>.000</td>
</tr>
</tbody>
</table>

Socio-demographic variables:
- Education : .140  .055  .126  3.542  .000
- Monthly Average Income : .049  .018  .107  3.784  .000
- Age : .079  .030  .088  3.687  .000
- Residential area : .009  .004  .059  2.968  .001
- Occupation : -.023  .044  -.030  -.529  .597
- Marital Status : .057  .105  .024  .543  .587
- Gender : -.057  .117  -.020  -.489  .625

Cognitive and affective variables for attitude formation:
- Environmental pollution result of tourism development and tourist activities : .367  .053  .282  6.887  .000
- Environmental protection and development : .246  .059  .256  4.176  .000
- Money goes to nature conservation fund  : .339  .070  .255  4.820  .000
<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig. a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Endangered animals are under threat due to tourism development</td>
<td>.359</td>
<td>.068</td>
<td>.245</td>
<td>6.755</td>
</tr>
<tr>
<td>Pay extra to stay accommodation committed to good environmental</td>
<td>-.201</td>
<td>.030</td>
<td>-.201</td>
<td>-10.022</td>
</tr>
<tr>
<td>practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wildlife conservation</td>
<td>.172</td>
<td>.043</td>
<td>.185</td>
<td>4.037</td>
</tr>
<tr>
<td>Don't like to buy souvenirs made from animals</td>
<td>.128</td>
<td>.043</td>
<td>.151</td>
<td>2.979</td>
</tr>
<tr>
<td>Don't like to visit places results environmental damage</td>
<td>.161</td>
<td>.055</td>
<td>.110</td>
<td>2.926</td>
</tr>
<tr>
<td>Souvenirs made from animals are available to buy</td>
<td>-.040</td>
<td>.051</td>
<td>-.041</td>
<td>-.791</td>
</tr>
<tr>
<td>Donation to improve environmental quality</td>
<td>.028</td>
<td>.050</td>
<td>.021</td>
<td>.562</td>
</tr>
<tr>
<td>Tourism businesses are engaged with environmental practices</td>
<td>-.002</td>
<td>.056</td>
<td>-.002</td>
<td>-.038</td>
</tr>
<tr>
<td>Set limit on tourism development</td>
<td>-.002</td>
<td>.052</td>
<td>-.002</td>
<td>-.030</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Attitude towards environmental responsibility  
b. Significant at α = 0.05  
c. Beta coefficients are organised according to their level of influence

Here, for the developed regression model, standardized coefficient (Beta, β) value associated with each of the independent variables (including socio-demographic variables) is not zero. Therefore, this supports rejection of the null hypotheses of second and third research questions (RQ2 and RQ3).

**DISCUSSION**

In some cases the present study found different results compared with earlier studies. Major reason behind the dissimilarity might be the difference in sample respondents. For example in Dinan’s (2003) study, sample respondents were British tourists who are comparatively more aware about the negative impacts of tourism on the local environment, economy, society, and culture. In Kang and Moscardo’s (2006) study, British, Australian, and Korean tourists were the participants. Though Australian and Korean tourists in that study were domestic tourists, they had experiences of travelling abroad. In Deng and Bender’s (2007)
study sample, respondents were both domestic (West Virginia, USA) and international. Being the citizen of a developed country, visitors of the West Virginia are more aware about tourism and its impact on their environment, economy, and society. On the other hand, in Dodds et al. (2010), Chafe (2005), CREST (2005), IHEI (2002), ABTA-MORI (2002), Martin (2001) studies, sample respondents were international tourists and they were mostly from developed countries. Spenceley (2008) and Budeanu (2007) argue that tourists of developed countries are more aware about ST and RT, their positive practices, and are more responsible tourists compared with tourists from other parts of the world. Due to the differences exist in the socio-economic and cultural background of the sample respondents of the present study with the sample respondents of the aforementioned earlier studies it is fairly logical to conclude that their attitude towards environmental component of RT management would vary.

**Attitude Towards Environmental Responsibility:** Tables 2, 3, and 4 represent the domestic tourists’ attitude towards environmental responsibility. The present study found that education, monthly average income, and age are the most significantly influential socio-demographic variables and have respectively 12.6%, 10.7%, and 8.8% of the influence to formulate tourists’ attitude towards environmental responsibility. Moreover, they are positively correlated with attitude formation, meaning that domestic tourists with more education, a higher level of income and older have a more positive attitude towards environmental responsibility, supporting Dolnicar et al.’s (2008) findings in Australia. However, the findings in this study partly refute those from Kang and Moscardo (2006) and Dodds et al. (2010), who found that gender, occupation, and marital status influence tourists’ attitude to environmental responsibility, which was not the case of the domestic tourists of Bangladesh.

Interestingly, this study found that residential area is a significantly influential variable (5.9% influences) when forming the attitude towards environmental responsibility. However, it should be carefully considered along with the other socio-demographic variables, because about 60% of the sample respondents of this study mentioned Dhaka as their residential area. Dhaka is the capital and largest city in Bangladesh and inhabited by 14 million people. It is the most developed part of the country with the highest level of infrastructure, communication and educational facilities, and economic activities. Moreover, among the country’s 44% urban population, Dhaka itself accommodates 37% of them and has the highest per capita income ($1350) and literacy rate (70.5%) (The Financial Express, 2013; BBS, 2012). Therefore, it is quite logical that domestic tourists who were from Dhaka had a higher level of education therefore, more aware and showed concern regarding environmental attributes.

Among the cognitive and affective variables that form the domestic tourists’ attitude towards environmental responsibility; environmental pollution, environmental protection and development, tourists’ support to nature
conservation fund, and threats to endangered animals are the top most significant influential variables and have the highest level of influences (28.2%, 25.6%, 25.5%, and 24.5% respectively). These findings show that domestic tourists believe the endangered animals of CB are under serious threat and the environmental pollution at CB is the result of unplanned tourism development and tourists’ activities, supporting Sing (2009) argument that domestic tourists are aware about their own environment. Moreover, similar to Dinan (2003) and Goodwin’s (2001) studies’ findings, the present study reveals that the domestic tourists of Bangladesh believe that tourism development at CB should takes into account environmental protection and development, and see funding for nature conservation as a positive experience.

The remaining four significant influential variables that form tourists’ attitude towards environmental responsibility are paying extra to stay with accommodation that engages in good environmental practices, wild life conservation, buying souvenirs made from animals, and avoiding visiting places that cause environmental damage due to visiting those sites. The level of influence of these variables on attitude formation is -20.1%, 18.5%, 15.1%, and 11.0% respectively. Like Manaktola and Jauhari’s (2007) study and in contrast with Dinan’s (2003) study, the present study found that domestic tourists have negative attitude when paying extra to stay in accommodation that engage with good environmental practices. Moreover, it is negatively correlated to the attitude formation thus can be termed as a dissatisfier to the dependent variable ‘attitude towards environmental responsibility’. On the other hand, domestic tourists consider that tourism development at CB should takes into account wild life conservation and they don’t like to buy souvenirs that are made from animals. This support Budanau’s (2007) argument that sustainable tourist consumption involves avoiding souvenirs made from animals and endangered species. Moreover, similar to Chafe (2005) and Martin’s (2001) findings, the present study found that tourists don’t like to visit places at CB that results in environmental damage caused by their visits.

However, in contrast to Budanau (2007), Dinan (2003), and IHEI (2002) studies, the present study found that donations to improve environmental quality, tourism businesses need to be engaged with environmental practices, and set limits on tourism development, don’t have a statistically significant influence on forming tourists’ attitude towards environmental responsibility. Therefore, destination management (DM) needs to work on these components to enhance the tourists’ positive attitude towards environmental responsibility and to improve the scope of environmental sustainability at the CB.

CONCLUSION
The main purposes of this research were to find out the domestic tourists’ attitudes towards environmental component of RT at CB and whether their attitudes vary in terms of socio-demographic variables in order to identify the
most appropriate target market for maximising the positive impacts of domestic tourism whilst minimising the negative ones. The aforementioned findings suggest that, domestic tourists have positive attitudes towards environmental component of RT management. Further, this study also suggests including tourists’ socio-demographic characteristics whilst measuring their attitude, as their attitudes significantly vary due to variation in their socio-demographic characteristics. Therefore, to ensure the environmental sustainability and of RT, the findings of the present study suggests that for CB, the best approach to segment and target the domestic tourism market is based on age, education, and income. Like Dolnicar et al. (2008) findings, this study recommends that within the context of CB, tourists who are more educated, have higher level of income, and are of mid age to older are environmentally friendly tourists.

The first objective of this research was to find out the significant influential variables through which attitudes of the domestic tourists towards environmental responsibility of RT has been formed and measure their level of influences. The findings of the present study suggest that tourists’ attitude to environmental component of RT is the output of their cognitive and affective state of mind along with the influence of their socio-demographic characteristics. This study found that environmental pollution, environmental protection and development, contribution to nature conservation fund, and threats to endangered animals are the top most significant influential variables and have highest level of influences when formulating domestic tourists’ attitude towards environmental responsibility.

The second objective of this research was to measure whether domestic tourists’ attitudes towards environmental responsibility of RT management vary due to socio-demographic variability and, if they do vary, to measure the magnitude of variability. The present study found that among the socio-demographic variables; education, monthly average income, and age are the most significantly influential and have respectively 12.6%, 10.7%, and 8.8% of the influence to formulate tourists’ attitude towards environmental responsibility. The findings of the present study support the premise that if CB is looking to attain environmental sustainability, it needs to target the group of domestic tourists who possess a high education level, high income and mid aged to older, as this group of tourists displayed more positive attitude towards environmental responsibility compare with others.

The third objective of this research was to draw conclusions and formulate recommendations about how different explaining variables of environmental responsibility should be considered by destination management to improve tourists’ positive attitudes towards tourism development at CB. The findings of the present study supports that though tourists have positive attitudes towards
environmental component of RT, however, still there is scope to improve their positive attitude. Findings of the present study suggest that donations to improve environmental quality, tourism businesses need to be engaged with environmental practices, and set limits on tourism development, don’t have a statistically significant influence on forming tourists’ attitude towards environmental responsibility. Therefore, destination management (DM) needs to work on these components to enhance the tourists’ positive attitude towards environmental responsibility and to improve the scope of environmental sustainability at the CB.

The Government of Bangladesh recently set the goal to develop CB in a sustainable manner (Zahra, 2013). Therefore, based on the growth of tourism and its impacts, there is a need to consider how CB can be preserved and managed by addressing environmental issues. Applying environmental sustainability measures to tourism in CB can be potentially less harmful than continuing to build and develop in an unchecked manner. Butler (1980) and Ma and Hassink (2013) outlined that destinations will need to maintain their natural aesthetic appeal to maintain their tourism numbers. This study found that the tourists as a key stakeholder in the tourism model cares about the sustainability of the CB and appears to be willing to pay to protect its environmental and social fabric. The present study suggests that the tourist is a key stakeholder and should be considered when destinations develop their tourism amenities. The present study also found that tourists are concerned about the environmental impacts and have noted that this affected their vacation in some way.

In summary, the findings of this study have made an important contribution to existing literature and have highlighted some important market implications. This study will assist the DM to profile and define the domestic tourism market of CB more precisely, which was almost missing in the earlier literature. Moreover, the findings on the domestic tourists’ attitudes toward environmental component of RT management are unique as they are the first time that this has been highlighted within the existing literature on RT management and on the domestic tourism market of Bangladesh. With the support of and reference to the present study, the DM can work on environmental part of the TBL components to enhance the positive attitude of tourists towards RT practices at CB. Moreover, they can use the same framework to study similar subject areas at other destinations of Bangladesh. The present study also contributes to the RT literature as, worldwide very few studies tried to find out about the attitude towards RT development and/or management from tourists’ perspective (Stanford, 2008; Kang and Moscardo, 2006; Reiser and Simons, 2005). Furthermore, it is largely ignored when researching in developing countries. Therefore, the present study on CB, Bangladesh minimizes the identified literature gap for developing countries.
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