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ECONOMIC VALUATION OF SHALBON BIHAR USING TRAVEL COST METHOD

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Abstract:
Shalban Bihar is one of the most prominent archaeological sites as well as a tourist spot in the Comilla district of Bangladesh. A fast-growing economic sector like tourism, Shalban Bihar creates huge economic value by serving recreation, which plays a significant role in the development of the local community as well as the national economy. The main objective of the study is to estimate the monetary value arising from the recreational services of Shalbon Bihar. The study is based on primary data. The respondents of the study were the visitors who traveled to Shalbon Bihar during the survey period. The sample size of the study is 200. There was a systematic random sampling process used to choose the respondents. Data were collected through face-to-face interviews following a semi-structured questionnaire. The Statistical Package for Social Sciences (SPSS) was utilized to analyze the gathered data. Descriptive statistical analysis and Poisson regression analysis were performed to interpret the data. From the study, it is observed that the average travel cost is 554.60 taka, and the cost of travelling time of an individual is 576.25 taka. Thus, Shalban Bihar has created a value of 1052 taka per visit by providing recreational services to the visitors. The study suggests undertaking different improvement plans like establishing an ATM booth, modern toilet facility and residential facility for the site to boost the economic contribution to the local as well as national economy.

Keywords: Economic Valuation, Travel Cost Method, Shalbon Bihar, Bangladesh

INTRODUCTION

Bangladesh is blessed with natural beauty, such as mangrove forests, rivers, coasts, world-long sea beaches, archaeological sites, religious places, hills, waterfalls, tea gardens, etc. A trip for recreation purposes bu, business purposes, religious activities, or enjoying leisure time with family members or alone for a short duration is called tourism. Nowadays, the tourism sector is doing excellent performance in terms of foreign exchange earnings, generating new employment opportunities, and rising purchasing power for the economic growth of the country. For sustainable economic prosperity at both micro and macro level tourism plays a significant role (Chowdhury and Shahriar, 2012).

Iranian forest parks are considered resources with distinctive recreational potential, spread throughout a vast array of climatic and natural circumstances. Since no two regions exhibit the same level of condition, the public's response to the parks would vary considerably. In addition, persons differ in other ways depending on their age, wealth, favors, and other variables. Numerous disciplines, including psychology, sociology, anthropology, geography, and environmental economy, are interconnected with ecotourism and recreation (Oladi, 2005).

Clawson (1959) conducted a study to estimate the association between the park's distance from the visitors' residential area and recreational quality. Today, this approach—known as the TCM—is

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one of the most used methods for assessing recreational qualities. It has been used extensively to appraise nature-based recreation.

In Queen Elizabeth Park, Scotland, Hanley (1989) employed the TCM and Contingent Valuation Method (CVM), a technique based on establishing a virtual market to assess non-market products and services. According to the study, TCM's willingness to pay (WTP) is lower than CVM's. He did not specify which is more appropriate, though.

In 1998, Fix and Loomis used TCM and CVM to assess non-market facilities in the American Biking Mountains. Thus, using CVM and TCM, they determined 235 and 206 USD per hectare, respectively. The findings made it clear that, in comparison to TCM, the amount of WTP has been displayed more in CVM.

Bangladesh is very rich in archaeological sites, which are the monuments of the medieval period, both during the Muslim and pre-Muslim rules. Most of these sites remain unexplored and unknown till now. Mainamati Shalbon Bihar is one of the most prominent and rich archaeological heritage in Bangladesh which is situated on the Mainamati-Lalmai range. It is eight kilometers west of Cumilla town. The site was established during the 8th to 12th centuries and is dotted with more than 50 ancient Buddhist settlements. In the center of the construction, there is a cruciform temple, which is surrounded by 115 cells built around a spacious courtyard. Shalbon Bihar was formerly a self-contained Buddhist monastery where monks lived, studied, and worshipped. It was also the royal palace for the first Buddhist pupils. International students come here to study, meditate, and learn about religion. They spend the study period in the dorms and cells surrounding the temple. It is one of the most popular tourist destinations in Bangladesh and a serene location teeming with natural beauty within a desolate mountainous forest. So, valuing such tourist places, specifically the Shalbon Bihar, is important because of its economic contribution to the economy.

The study's primary goal is to calculate the monetary value of Shalbon Bihar's leisure services. The specific objectives of this study are to i) determine the socio-demography of visitors and ii) determine the intangible benefits attained by visitors through the travel cost method.

The economic Valuation of cultural heritage sites is an important aspect of preserving historical landmarks, guiding funding decisions, and supporting sustainable tourism. Shalbon Bihar, a significant archeological and cultural site in Bangladesh, presents a unique case for Valuation through non-market approaches, such as the Travel Cost Method (TCM). TCM, which originated from Hotelling's work in 1949 and later developed by Clawson and Knetsch (1966), is widely used for valuing recreational sites and natural resources by estimating visitor expenditures as a proxy for their willingness to pay (Willis, 2009). This review critically evaluates TCM's application to cultural sites, particularly in developing countries, by examining existing literature on its methodology, effectiveness, and limitations.

Zaiton (2008) mentioned that ecotourism has a significant role in the conservation of natural resources and enhancing economic growth. Ecotourism is the first growing industry all over the world and it grew three times faster. Recreational services and ecosystem values can be evaluated in different ways. The Developed world has used many non-market valuation studies, while very few such studies have been found in the case of developing countries (Timah, 2011).

Liston-Heyes and Heyes (1999) argued that to evaluate the economic value of recreational services of parks, beaches, and various tourist spots, various attempts have been made. The economic valuation technique is essential for the management side because, using this tool, the cost and benefit can be identified in monetary terms. This measurement is helpful in designing policy for

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the betterment of the site by park management. Generally, the Travel Cost Method (TCM) is used to find out the economic value of the recreational benefit of tourist spots such as public parks. This method is also known as an indirect technique because it calculates economic value via the recreational benefit gained by the visitors to visit the site. This method is also used for the Valuation of nonmarketed public goods by using consumer behavior.

Englin and Shonkwiler (1995) defined the Travel Cost Method (TCM) as "Recreational travel expenses would be categorized as travel expenses and determined by adding up the out-of-pocket expenses for the distance traveled and the amount of time spent traveling."

The demand function of a tourist is estimated by the price paid to visit the spot, and using this demand function, consumers' surplus is calculated by the area below the demand function and above the implicit price, which is considered as the recreational value of that site (Freeman, 1993). Though the Travel Cost Method has some limitations in estimating the recreational benefits, it's a very well-known technique for solving various practical and theoretical problems in estimating benefits from outdoor recreational sites (Whitehead et al., 2000).

Contingent Valuation Method (CVM) is generally used to estimate the depletion value, preservation value, use-value, and non-use value of natural resources (Lindberg and Johnson, 1994; Echeverria et al., 1995). Though both the Travel Cost Method and Contingent Valuation Method are useful tools for estimating the willingness to pay by using entry fee, travel cost, and cost to enjoy the facilities of the spot, TCM gives more reliable estimates than any other valuation techniques (Abala, 1987; Baldares and Laarman, 1990; Moran, 1994).

A large number of works (Stevens & Allen, 1980; Dwyer et al., 1983; Knapman & Stanley, 1991; Chen et al., 2004; Herath & Kennedy, 2004; Rolfe & Gregg, 2012) have been found to use TCM to estimate the monetary value of recreational sites like forest park, national park, beach, etc. in the world perspective. Grandstaff and Dixon (1986) estimated the monetary value using both TCM and CVM for Lumpinee Park of Thailand and found that the park generates a total consumer surplus worth 130–132 million baht. A similar result was found for the Khao Yai National Park in Thailand, where the consumer surplus per tourist was 870 baht, and the average willingness to pay entry fees was around 22 baht per visitor. After some improvement of the site, the study was conducted again and found that the willingness to pay entry fees increased from 22 to 44 baht per visitor (Kaosa-ard et al., 1995). Clough and Meister (1991) conducted a study to find out the economic value of Tongariro, the National Park of New Zealand, using the Travel Cost Method. The study finds consumer surplus is worth approximately US$174 per winter and US$147 per summer visitor.

A very few studies regarding the Valuation of recreational sites have been found in the country aspect. Islam & Majumder (2015) conducted a case study to determine the economic Valuation of Foy's Lake, Chittagong, using the Travel Cost Method. The study collected information using a structured questionnaire from 200 visitors, and the result shows that the Lake created a monetary value worth 294165270 BDT in the year 2014. A study conducted by Shammin (1999) at Dhaka Zoological Garden. He used TCM and considered 1000 samples. The study reported that the yearly willingness to pay by consumers was 1,288,601,665 Taka. Another study was found using the Travel Cost Method to evaluate the economic value of Lawachara National Park, considering 422 respondents. Findings reported that Lawachara National Park generated a total economic value of 55,694,173 Taka/Year, and it suggested charging a 25 taka entry fee per visitor.

Haider et al. (2018) conducted a study on four tourist spots (Shatgumbuj Mosque, Mozaffar Garden, Niribili Tourist Point, and Chandramahal Eco-park) by using both TCM and CVM methods to evaluate the recreational services. They considered 200 respondents for their study and found that

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these spots generate a consumer surplus was US$1.24 - US$ 3.64 per tourist per year and a gross recreational value was US$ 0.06 – US$ 0.84 million per year. The average willingness to pay to develop the quality of recreational services was found at US$ 0.06 – US$ 0.10 for these spots.

Ahmed and Hossain (2018) conducted a study on Safina Park, Rajshahi district, using individual Travel Cost Method and 120 samples. The result of the study depicts that the recreational value of the park was TK. 58.19 million per year, and the average recreational value was TK. 416.41. Another study was conducted by Tahzeeda et al. (2018) using TCM and CVM methods to evaluate the recreational value of the National Botanical Garden in Bangladesh. The study considered 100 visitors and found that willingness to pay for entry fee was US$ 0.955, and consumer surplus was US$ 593634.5 per year. The study recommended that the entry fee for the National Botanical Garden should be around US$ 0.225 per visit.

The Mainamati Shalbon Bihar contributes more economically and archaeologically. It is one of the prominent tourist spots in Bangladesh. Though few works on valuing recreational parks are conducted in our country, the researcher has not focused on such an attractive tourist place. So, the study intends to explore the aforesaid issues in depth.

METHODS

Study Area: Mainamati Shalbon Bihar has been selected purposively as the study area. Shalbon Bihar is a prominent archaeological site in Bangladesh located in the center of the Lalmai area of Cumilla Sadar Dakhin Upazila. It is adjacent to Comilla University and Bangladesh Academy for Rural Development (BARD) and situated about eight kilometers west of Cumilla town.

Data and data collection tools: The study is mainly based on primary data. The respondents of the study were the visitors who traveled to Shalbon Bihar during the study period. The sample size of the study is considered 200 based on earlier literature. Respondents were selected through a systematic random sampling procedure. Data were collected through face-to-face interviews following a semi-structured questionnaire. Three months (December 2023 – February 2023) were considered as the survey period because, during that period, tourists visited the site mostly.

Travel cost method (TCM): From the literature, it is clear that to estimate the economic value of a recreational service, different methods can be used (Bateman, 1993; Bartczak et al., 2008; Alvarez and Larkin, 2010). These methods are classified into two approaches such as the revealed preference method and the stated preference method (Bateman, 1993). The revealed preference method has four valuation techniques such as 1) market price, 2) cost based, 3) hedonic pricing, and 4) TCM. The travel cost method (TCM) is an indirect revealed preference approach (Blakemore &William, 2008) and was first introduced by Clawson (1959). The Travel Cost Method reflects the true social cost and benefit by which the monetary value of a recreational service can be calculated. By using Marshallian consumer surplus, TCM is estimated (Bateman, 1995). The gap between total trip costs or total expenditure by a tourist and the highest amount he or she is willing to pay is called Consumer Surplus (CS) (Timah, 2011).

The demand function for visitors can be written as follows:

$V = f (RITC, TTimeC, MS, Age, Edu, GM, \mu)$

Where,

V = number of trips per year;
RITC = Round trip travel cost of an individual;
TTimeC = cost of time to travel;
MS = Mean satisfaction;

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Age = age of the respondents;
Edu = education qualification;
GM = Monthly income; and
μ = stochastic error term.

To estimate the linear regression model from the functional relation, the following equation is used-

$$V = \beta_0 + \beta_1 RITC + \beta_2 TTimeC + \beta_3 MS + \beta_4 Age + \beta_5 Edu + \beta_6 GM + \mu$$

Where β_0 to $\beta 6$ are the coefficients of the variables to be estimated.

The consumer surplus is calculated using the coefficient of the total travel cost variable (b_{Ttc}), which can be obtained by summing up the coefficients of the trip cost (β_1) and time cost (β_2) from an earlier equation (Ahmad 1994, Syamsul 2010).

$$CS \text{ per visit} = -1/b_{Ttc}$$

Where,

$$b_{Ttc} = \beta_1(\text{trip cost}/RITC) + \beta_2(\text{time cost}/TTimeC)$$

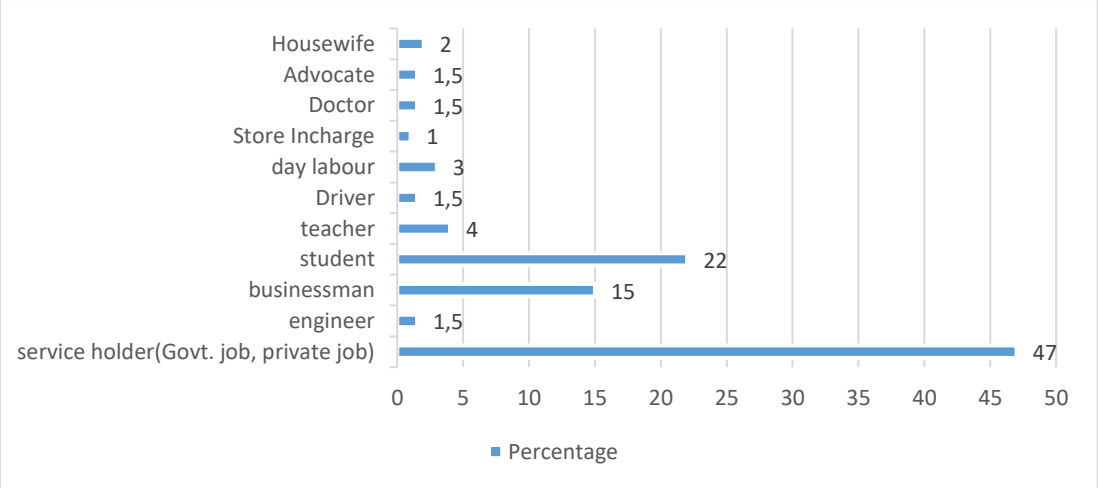
Analytical tools: The data were analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistical analysis and Poisson regression analysis were performed to interpret the data.

RESULT AND DISCUSSION

Socio-demographic Profile: This section includes the age, sex, occupation, marital status, residence, education, monthly income, monthly expenditure, number of family members etc., of the respondents. The details are discussed below:

Age of the respondents: The study found that most of the respondents are 31 years old, the minimum age is 15, and the maximum age is 57.

Occupation of the respondent: The result shows that 47 percent of respondents are service holders, such as government or private employees. Twenty-two percent are students, and fifteen percent are businessmen. The remaining others are teachers, day laborers, advocates, doctors, divers, engineers, storekeepers and housewives.



Source: Author's calculation using survey data

Figure 1. Occupation of the respondents

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Gender of the respondent: The result also shows that 86.5 percent of respondents are male, and only 13.5 percent are female.

Marital Status of the Respondent: 51.5 percent of respondents are married, and 48.5 percent are unmarried.

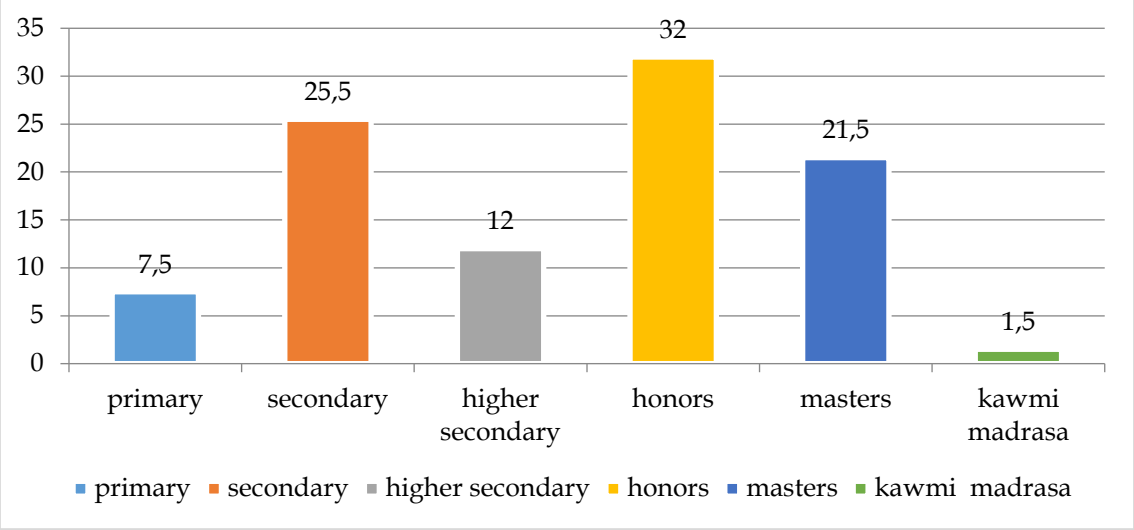
Residence of the respondent: The study observed that out of 200 respondents, 88 percent were from urban areas and only 12 percent were from rural areas. The detailed information is shown in the following table.

Table 1. Residence of the respondents

Residence Type	*Percentage of Respondent*
Urban	88
Rural	12
Total	100

Source: Author's calculation using survey data

Education of the respondents: The study clearly shows that 32 percent of the respondents have an honors degree, 25.5 percent have completed secondary education, and 21.5 percent have a master's degree. It is also observed that 7.5 percent of the respondents have primary education, and only 1.5 percent come from kami madrasa backgrounds.



Source: Author's calculation using survey data

Figure 2. Education of the respondents (Percentage)

Number of family members of the respondents: The data shows that about 50 percent of respondents have 5 to 8 family members, 47 percent have 1 to 4 family members, and 3.5 percent have more than 8 family members.

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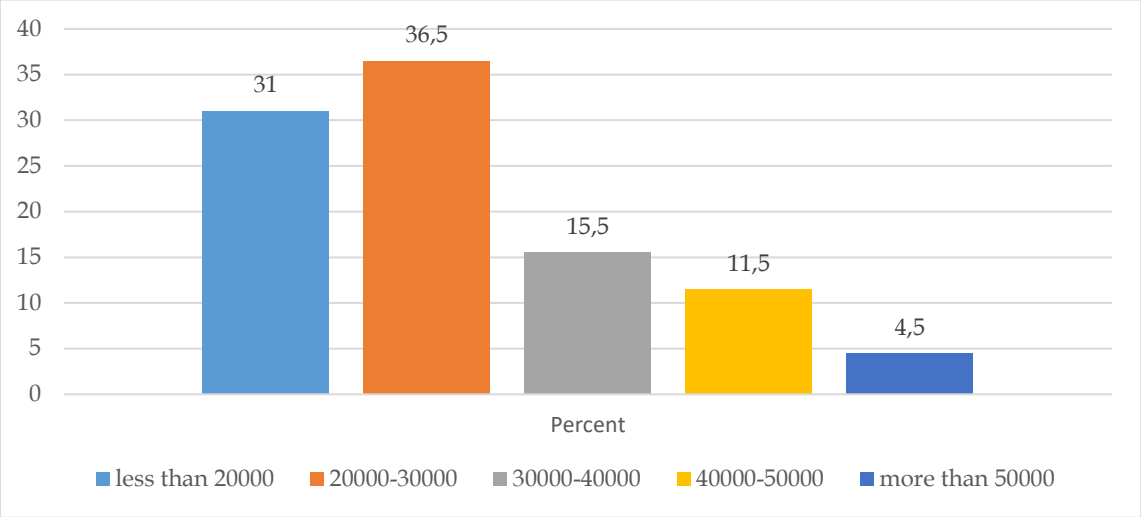
Monthly family expenditure of the respondent: From the study, it is found that 36.5 percent of respondent's monthly family expenditure range is 20000 taka to 30000 taka. Secondly, 31 percent of respondents' monthly family expenditure is less than 20000 taka, and lastly, more than 50000 takas monthly family expenditure is only 4.5 percent of respondents.



Source: Author's calculation using survey data

Figure 3. Monthly family expenditure of the respondents

Living Place of the Respondent (District): It was found that most of the respondents came from nearby districts. From the result, it is clear that 37.5 percent of respondents came from Cumilla district. Secondly, 25.5 percent came from Dhaka, thirdly 13 percent came from Chittagong, fourthly 9.5 percent came from Narayangong, 3.5% came from Noakhali, and others came from various districts such as Bogura, Borguna, Bramanbaria, chadpur, Khulna, Shylhet, etc.

Table 2. Living district of the respondents

Name of Living Place (District)	Percentage of Respondent
Cumilla	37.5
Dhaka	25.5
Chittagong	13
Narayangonj	9.5
Noakhali	3.5
Sirajgonj	2
Others	9
Total	100

Source: Author's calculation using survey data

Distance from the spot (km): The study found that the maximum distance from the spot is 450 km and the minimum is 1 km. The average distance is 108 km from the spot.

Monthly income of the respondent (BDT): The result shows that the minimum monthly income is zero because there are students and housewives who have no income. On the other hand,

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the maximum monthly income of the respondent is two lac (200000), and the average monthly income is 31250 taka.

Table 3. Monthly income of the respondent (BDT)

Monthly Income of the Respondents	In Bangladeshsi Taka (BDT)
Minimum	0
Maximum	200000
Average	31250

Source: Author's calculation using survey data

Recreational benefits achieved by respondents through travel cost method: The findings have been analyzed by the Individual Travel Cost Method, which was conducted by Matthew et al. (2013). In the study, data have been analyzed by using Poisson regression analysis. The result of the study is presented in the following table. From the result, it is found that it is significant with a negative coefficient, which means a downward-sloping demand curve. From the study, it is observed that the average travel cost is 554.60 taka, and the cost of traveling time for individuals is 576.25 taka. It is also found that the average time of travel from home to this location is 2.39 hours (one way).

From the findings, it is also clear that mean satisfaction gained (MS), measured through the quality of the site, is significant and has a positive sign. It means that a 1% increase in respondents' satisfaction would increase the visits to Shalban Bihar by 0.617%.

From the result, it is found that the monthly income of the respondent is a significant and negative sign. The coefficient negative sign implies that the demand for goods would shift leftwards as an increase in income of the respondent. That means an increase in the income of the respondent, the Shalban Bihar is less preferable plane to visitors. It would encourage them to visit other most preferable destination. Here, a 1% increase in the monthly income of the respondent would decrease the visits to Shalban Bihar by 0.00001981%.

A positive coefficient is found for the variable age, but it is insignificant. It means that a 1% increase in the age of the respondent would be increased to visit the site by 0.004%. On the other hand, the education of the respondent is a positive sign and significant. A positive coefficient showed that the demand for Shalban Bihar will shift positively for respondents when levels of education are higher. That means a 1% increase in education of the respondent would increase the visit to the site by 0.120%

Table 4. Poisson Regression Result

Parameter	*B*	*Std. Error*	*95% Wald Confidence Interval*		*Hypothesis Test*		
			Lowe	**Upper**	***Wald Chi-Square***	***Df***	***Sig.***
(Intercept)	-1.442	0.5815	-2.582	-0.302	6.146	1	0.013
Cost	-0.00201	0.002	-0.002	-0.002	159.247	1	0.000
Income Loss	0.000	5.2585	0.000	0.000	22.182	1	0.000
Mean satisfaction	0.617	0.1505	0.912	0.912	16.845	1	0.000

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Income	-1.981	2.2868	-1.533	-1.533	75.070	1	0.000
Age	0.004	0.0043	0.013	0.013	0.924	1	0.336
Education	0.120	0.0114	0.143	0.143	110.707	1	0.000
(Scale)	1[a]						

Dependent Variable: Number of visits by the respondents per year
Model: (Intercept), cost, income loss, mean satisfaction, income, age, education
Note: [a] → Fixed at the displayed value.

The consumer surplus is calculated using the coefficient of the total travel cost variable (b_{Ttc}) which can be obtained by summing up the coefficient of the trip cost (β_1) and time cost (β_2) (Ahmad, 1994; Syamsul, 2010).

CS per visit = $-1/b_{Ttc}$

Where, $b_{Ttc} = \beta_1(\text{trip cost/RITC}) + \beta_2(\text{time cost/TTimeC})$

From the Poisson regression result we obtain,

b_{Ttc} = -0.00201+ 0.00000 = -0.00201

So, CS per visit = -1/-0.00201 = 497.51

From the result it is found that the average consumer surplus value per person per trip per year is 497.51 taka. From the result it can be derived the recreational value for the shalban bihar as consumer surplus (497.51) plus total travel cost per visitors (554.60) which is 1052 taka per person/ per trip. So, Shalban Bihar has created a value of 1052 taka per visit by providing recreational services to the visitors.

CONCLUSION

Shalban Bihar plays a significant role in generating large economic value by attracting new and large numbers of tourists from home and abroad through recreational services. From the study, it is found that most of the respondents are 31 years old, and 47 percent of respondents are service holders, such as government jobs or private jobs. It is observed that 88 percent of respondents came from urban areas and nearby districts. It is found that 36.5 percent of respondent's monthly family expenditure range is 20000 taka to 30000 taka, and the average monthly income is 31250 taka. From the study, it is observed that the average travel cost is 554.60 taka, and the cost of traveling time for individuals is 576.25 taka. It is also found that one-way average travel (from home to this spot) time is 2.39 hours and the consumer surplus per person per trip per year is 497 taka. So, Shalban Bihar has created a value of 1052 taka per visit by providing recreational services to the visitors. From the result, it is clear that a total of 87 percent of respondents agree with imposing an entry fee to improve the recreation facilities, and most of the respondents (64%) mentioned that if the entry fee is increased for upgrading the facilities of the site, they will definitely come. So, Shalban Bihar created an economic value by serving as a recreational spot that plays a significant role in the development of the local community as well as the national economy. Based on the study findings, it is suggested that:

1. The government can undertake policies and programs to improve the recreational facilities of the site, such as establishing ATM booths, modern toilets, and residential facilities.
2. Establishing more facilities and attracting more tourists government can generate a large volume of revenue for the economy.

REFERENCES

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Abala, D. O. (1987). A theoretical and empirical investigation of the willingness to pay for recreational services: a case study of Nairobi National Park. *Eastern Economic Review, 3*(2), 271–292.

Ahmad, S. (1994). Demand for and value of outdoor recreation in Langkawi by domestic visitors. PhD thesis, Universiti Putra Malaysia, Selangor.

Ahmed, R., & Hossain, M. E. (2018). Economic Valuation of Recreational Services Provided at Safina Park: A Travel Cost Approach. *Journal of Business Studies, 11*(1), 39-52. https://doi.org/10.9734/AJAEES/2018/44882

Alvarez, S., & Larkin, S. L. (2010). Valuing ecological restoration and recreational benefits in a mountain protected area: the case of Los Nevados National Park, Colombia. *Journal of Sustainable Development, 3*(4), 3–16. https://doi.org/10.5539/jsd.v3n4p3

Baldares, M. J., & Laarman, J. G. (1990). Derechos de entrada a las areas protegidas de Costa Rica. *Ciencias Economicas, 10*(1), 63-76.

Bartczak, A., Lindhjem, H., Navrud, S., Zandersen, M., & Żylicz, T. (2008). Valuing forest recreation on the national level in a transition economy: The case of Poland. *Forest Policy and Economics, 10*(7-8), 467-472. https://doi.org/10.1016/j.forpol.2008.04.002

Bateman, I. (1993). Evaluation of the Environment: A Survey of Revealed Preference Techniques. Working Paper No. 93-06, Centre for Social and Economic Research on the Global Environment, London.

Blakemore, F., & William, A. (2008). British Tourists' Valuation of a Turkish Beach Using Contingent Valuation and Travel Cost Methods. *Journal of Coastal Research, 24*(6), 1469–1480. https://doi.org/10.2112/06-0813.1

Chen, W., Hong, H., Liu, Y., Zhang, L., Hou, X., & Raymond, M. (2004). Recreation demands and economic value: an application of travel cost method for Xiamen Island. *China Economic Review, 15*(4), 398–406. https://doi.org/10.1016/j.chieco.2003.11.001

Chowdhury, M. A. F., & Shahriar, F. M. (2012). The impact of tourism in a deficit economy: a conceptual model in Bangladesh perspective. *Business Intelligence Journal, 5*(1), 163–168.

Clawson, M. (1959). Methods of measuring the demand for and value of outdoor recreation. *Resources for the Future, 10*.

Clawson, M., & Knetsch, J. L. (1966). *Economics of Outdoor Recreation*. Johns Hopkins Press.

Clough, P. W. J., & Meister, A. D. (1991). Allowing for multiple-site visitors in travel cost analysis. *Journal of Environmental Management, 32*(2), 115–125. https://doi.org/10.1016/S0301-4797(05)80028-3

Das, R. K., & Chakraborty, J. (2012). An evaluative study on tourism in Bangladesh. *Research Journal of Finance and Accounting, 3*(1), 84–96.

Dwyer, J. F., Peterson, G. L., & Darragh, A. J. (1983). Remove from marked records estimating the value of urban forests using the travel cost method. *Journal of Arboriculture, 9*, 182–185. https://doi.org/10.48044/jauf.1983.045

Echeverria, J., Hanrahan, M., & Solorazano, R. (1995). Valuation of non-priced amenities provided by the biological resources within the Monteverde cloud forest preserve, Costa Rica. *Ecological Economics, 13*(1), 43–52. https://doi.org/10.1016/0921-8009(95)00054-D

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Grandstaff, S., & Dixon, J. A. (1986). Evaluation of Lumpinee Park in Bangkok, Thailand. in Dixon, J.A. and Hufschmidt, M.M. (Eds): Economic Valuation Techniques for the Environment: A Case Study Workbook, Johns Hopkins University Press, Baltimore.

Haider, M. Z., Hossain, T., Siddiqui, O. I., & Islam, M. S. (2018). Economic Valuation of the tourist spots in Bangladesh. Int. J. *Tourism Policy, 8*(1), 42-64. https://doi.org/10.1504/IJTP.2018.10011399

https://doi.org/10.1504/IJTP.2018.090320

Herath, G., & Kennedy, J. (2004). Estimating the economic value of Mount Buffalo National Park with the travel cost and contingent valuation models. *Tourism Economics, 10*, 63–78. https://doi.org/10.5367/000000004773166529

Islam, K., & Majumder, S. C. (2015). Economic Evaluation of Foy's Lake, Chittagong using travel cost method. *Indian Journal of Economics and Development, 3*(8), 1–6.

Kaosa-ard, M., Patmasiriwat, D., Panayotou, T. & Deshazo, J. R. (1995). Green Financing: Valuation and Financing of Khao Yai National Park in Thailand. Thailand Development Research Institute, Bangkok.

Kawsar, M. H., Pavel, A. A., Uddin, M. B., Rahman, S. A., Mamun, M. A. A., Hassan S. B., Alam, M. S., Tamrakar, R., & Wadud, M. A. (2015). Quantifying Recreational Value and the Functional Relationship between Travel Cost and Visiting National Park. International *Journal of Environmental Planning and Management, 1(*3), 84–89.

Knapman, B., & Stanley, O. (1991). A Travel Cost Analysis of Recreation Use Value of Kadau National Park. Canberra. *Resource Assessment Commission Inquiry*, *42*.

Lindberg, K., & Johnson, R. L. (1994). Estimating demand for ecotourism sites in developing nations. *Trends, 31*(2), 10-15.

Liston-Heyes, C., & Heyes, A. (1999). Recreational Benefits from the Dartmoor National Park. *Journal of Environmental Management, 55,* 69-80. https://doi.org/10.1006/jema.1998.0244

Majbritt, T. (2010). Eco-resort for sustainable tourism. The Daily Star, 29 April, page-2.

Moran, D. (1994). Contingent Valuation and biodiversity: Measuring the user surplus of Kenyan protected area. *Biodiversity and Conservation, 3*(8), 663–684. https://doi.org/10.1007/BF00126859

Rolfe, J., & Gregg, D. (2012). Valuing beach recreation across a regional area: The Great Barrier Reef in Australia. *Ocean & Coastal Management, 69*, 282–290. https://doi.org/10.1016/j.ocecoaman.2012.08.019

Shammin, R. M. (1999). Application of the travel cost method (TCM): A Case Study of Environmental Valuation of Dhaka Zoological Garden. IUCN, Switzerland.

Stevens, T. H., & Allen, P. G. (1980). Estimating the benefits of recreation under conditions of congestion. *Journal of Environmental Economics and Management, 7*, 395–400. https://doi.org/10.1016/0095-0696(80)90030-3

Syamsul, H. M. A. (2010). Valuing the recreational benefits of Perlis State Park, Malaysia, using the travel cost method. Unpublished PhD. Dissertation, Universiti Putra Malaysia, Selangor.

Tahzeeda, J., Khan, M. R., & Bashar, R. (2018). Valuation approaches to ecosystem goods and services for the National Botanical Garden, Bangladesh. *Environmental & Socio-Economic Studies*, *6*(1), 1-9. https://doi.org/10.2478/environ-2018-0001

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Zaiton, S. (2008). Willingness to pay in Taman Negara: A contingent Valuation Method. *International Journal of Economics and Management, 2*(1), 81–94.