

Economic Analysis on Visitor's Profile and Socioeconomic Determinants of Beach Visits: An Empirical Evidence from *Pasikudah* Beach, Batticaloa

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Abstract: Beach is an ideal place for family recreational visits. A visitor's decision to visit a particular recreation site is influenced by many factors including socio demographic features of visitors, distance to recreational site and popularity of that place. This study examines the visitor's profile and factors affecting beach visits in the form of expenditure incurred. A detailed questionnaire survey was carried out in a popular tourist destination; *Pasikudah* in eastern part of Sri Lanka. Data related to socioeconomic status of visitors and trip information pertained to study was collected in simple random sampling method. Descriptive statistics, mean comparison and multiple regression analysis were done to interpret the results. Results show more non-local visitors (70%) visit *Pasikudah* than local visitors and the average age of respondents in study area was 38 years. The average total family income of respondents in the study area was Rs. 58,362/- per month as well as the household size in study area was 4 members per family. Mean travel cost to *Pasikudah* was Rs. 357.35/- per visit and total expenditure on *Pasikudah* beach visit was Rs. 989.40/- in average. Expenditure on *Pasikudah* beach visits was significantly affected by total monthly income ($p < 0.01$) and travelling distance to *Pasikudah* beach.

Keywords: Beach visit, travel cost, visitor's profile, regression analysis, mean comparison.

INTRODUCTION

In Sri Lanka, coastal areas convey high total economic value comprising both use and non-use values and play an important role in the planned economic development of the country [1]. Batticaloa is most popular place for tourism since early centuries. There are many places for foreign and local tourists to visit in Batticaloa. The most common beaches available for visitors in Batticaloa are *Pasikudah*, *Kallady*, *Savukkady* and *Panichchankerny*. Among these sandy beaches, *Pasikudah* is the most common, widely known beach and having a large number of visitors/annum compare to other beaches [2].

Many visitors from all part of the world travel to visit *Pasikudah* for its stunning natural setting on the Island's Eastern tip. With its atmosphere of rarefied tranquility, it is a place for relaxation and renewal [3]. This is an ideal place for a family beach visit and throughout the year *Pasikudah* beach is fully occupied with travelers from all around the world. As it is known for an ideal destination for sea bathing travelers they never miss to visit this beach [4]. The calm conditions

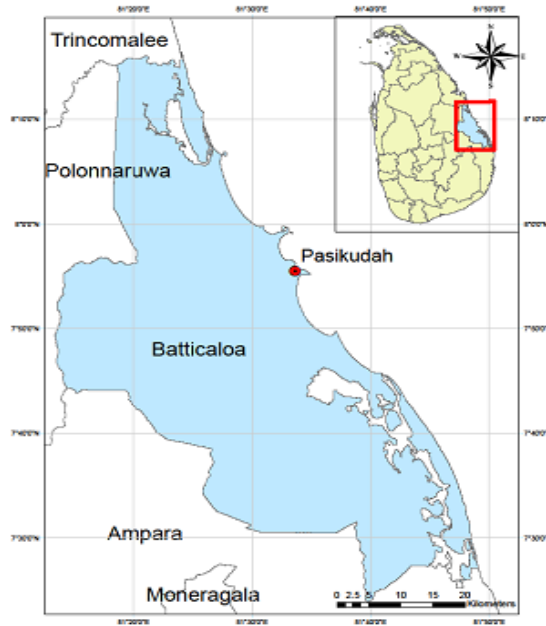
and clear water prevail within the inner reef lagoon make it ideal for swimming and exploring the shallow waters [5]. The common bay is open for all visitors throughout the year.

Even though, many local visitors visit *Pasikudah* beach for their recreational purposes compare to other beaches in eastern coast of Sri Lanka, very few studies has been conducted to draft a local beach visitor's profile to attend their grievances and maximize the beach visiting experience. Therefore, this study was conducted to analyze visitors profile and assess the socioeconomic determinants of *Pasikudah* beach visits.

METHODOLOGY

Description of Study Area

The selected area of this study was *Pasikudah* beach. *Pasikudah* is a coastal village situated in the Divisional Secretariat of Koralaipattu, Central, Valaichenai, which comes under Batticaloa District, Eastern Province.



(Source: Drawn by Author, 2016)

Pasikudah is situated 30 kilometer (km) away from Batticaloa town and it is known to have one of the longest stretches of shallow coastline in the world. Population for this study was visitors who visited *Pasikudah* beach for recreational purposes. Sample size

was 80. Sampling method used to select the respondents was random sampling.

Conceptual Framework

Many factors including socio demographics of visitors affect recreational beach visits. The common assumed factors are conceptualized in following model.

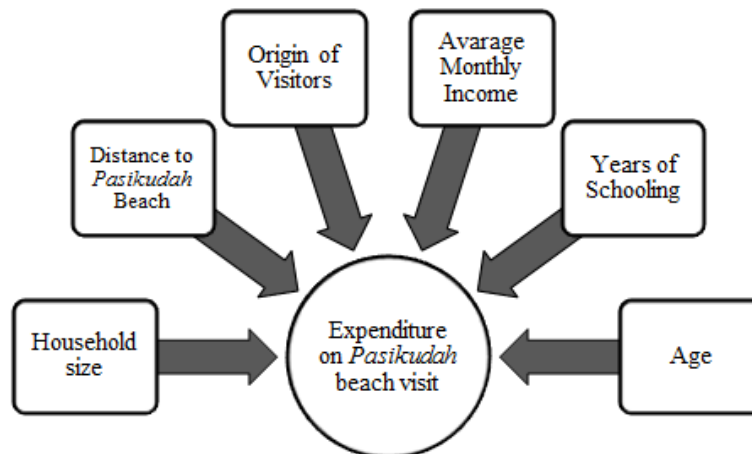


Fig-2: Conceptual framework
(Source: Drawn by Author, 2016)

Questionnaire design and data collection: More information pertaining to this study was collected from primary and secondary sources. Secondary data

was collected from relevant sources. Primary data required for this study was collected through in-depth interviews using structured questionnaire.

Table-1: Variables and their Measurements

| Parts | Variables | Measures |
|----------------------|---|--------------------------------------|
| Personal information | Age | Years |
| | Gender | Male/ female |
| | Monthly income | Rs. per month |
| | Employment | (employed=1, unemployed=0) |
| | Visitor | (Non-local=1, local=0) |
| | Number of dependent persons | Numbers |
| Trip information | Original starting place | Distance form <i>Pasikudah</i> in km |
| | Number of trips taken to the beach during the past year | Numbers |
| | Time spent at the beach | Hours |
| | Party size | Number of persons |
| | Onsite expenses | Rs |
| | Opportunity cost of travel time | Rs |
| | Travel expenditure including the accommodation fee | Rs/ visit |
| | Different travel vehicles | Own = 1 Public = 2 Rent = 3 |

(Source: Survey data, 2016)

Before commencement of the data collection, questionnaire was pre tested, to assess the suitability of the prepared questionnaire. Interviews were held from August to October 2016 to obtain suitable data for analysis.

DATA ANALYSIS

The completed questionnaires were checked for completeness and the collected data was subjected to analysis using the SPSS version 22.0 for precise and easy interpretation of results of this study. Descriptive statistics, mean comparison and multiple regression analysis were done to find out stipulated results.

Multiple Regression Analysis: Based on conceptual framework, the factors affecting expenditure on *Pasikudah* beach visit were analysed by the following multiple regression model.

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 D_6 + e_i \quad (1)$$

β_0 = Constant term

Dependent variable

Y= Total expenditure on *Pasikudah* beach visit (Rs.)

Independent variables

X_1 = Distance to *Pasikudah* (km)

X_2 = Age (years)

X_3 = Years of Schooling (years)

X_4 = Average monthly income (Number)

X_5 = Family size (Number)

Origin of visitors to *Pasikudah* beach (Local and non-local visitors to *Pasikudah*)

(Dummy variable)

D_1 =1 for local visitors, 0 otherwise;

e_i = Disturbance term /Error term assumed to be randomly distributed with zero mean.

RESULTS AND DISCUSSION

Origin of Visitors

Table-2: Origin of Visitors (N= 80)

| Origin | Frequency | Percent |
|-----------|-----------|---------|
| Local | 24 | 30.0 |
| Non Local | 56 | 70.0 |

(Source: Field Survey Data, 2016)

Visitors were categorized as local visitors and non-local visitors based on their living place in Sri Lanka. Those who live nearby *Pasikudah* beach or live within a radius of 30 km were classified as local visitors and rest were categorized as non-local visitors. Foreign visitors were excluded from this study in order to

prevent overestimation of results. As per the classification it was found 30% of local visitors and 70% non-local visitors visited *Pasikudah* for recreational purposes.

Socio Demographic Features of Respondents

Table-3: Comparison of Socio Economic Background of Local and Non-Local Beach Visitors (N= 80)

| Variables | Total Visitors | | Local Visitors | | Non-local visitors | |
|-----------------------------------|----------------|----------|----------------|----------|--------------------|----------|
| | Mean | Std. Dev | Mean | Std. Dev | Mean | Std. Dev |
| Age (Years) | 37.59 | 11.95 | 36.70 | 11.63 | 37.96 | 12.16 |
| Educational Level (Years) | 12.82 | 2.76 | 12.75 | 3.09 | 12.85 | 2.64 |
| Total Family Income (Rs. / Month) | 58362.50 | 57433.34 | 42333.67 | 44630.36 | 65232.14 | 61195.06 |
| Household size (Nos) | 4.15 | 1.10 | 4.25 | 1.07 | 4.10 | 1.12 |
| Rate of wage per hour (Rs./ hour) | 257.65 | 255.73 | 143.75 | 93.64 | 305.32 | 286.33 |

(Source: Field Survey Data, 2016)

According to the results, the age range of respondents in study area was 19 to 72 years and the average age was 38 years. Local respondent's average age was 36 years and the age range was 19 to 60 years. Non-local respondent's age range was 20 to 72 years and the average age was 38 years.

The average total family income of respondents in the study area was Rs. 58,362/- per month, and it was recorded as Rs. 42,333/- and Rs. 65,232/- between local and non-local visitors respectively. The total monthly income of family in study area ranges between Rs. 6,000/- to Rs. 300,000/-.

The average household size of the respondents was 4 members per family and the observed range was 2 to 7 members. Mean wage rate of *Pasikudah* beach visitors was Rs. 257.65/- (n=61), for local visitors it was calculated around Rs. 143.75/- (n= 18) and for non-local visitors it was measured around Rs. 305.32/- (n=61) per hour.

Travel Profile of *Pasikudah* Beach Visitors

It was observed from data that visitors who visited the *Pasikudah* beach for the first time and the visitors who already visited were observed to be in equal percentage (50%).

Table-4: Number of Visits Made by Respondents to *Pasikudah* within last 12 months (N=80)

| Number of Visits | Frequency | Percent |
|------------------|-----------|---------|
| 1.00 | 44 | 55.0 |
| 2.00 | 24 | 30.0 |
| 3.00 | 10 | 12.5 |
| 4.00 | 2 | 2.5 |

(Source: Field Survey Data, 2016)

The data obtained in the study area revealed that the majority of the respondents (55%) visited *Pasikudah* beach once within last 12 months. Around 30% of the respondents came to *Pasikudah* beach for second time and about 12.5% respondents came to visit

beach for third time within last 12 months. This data revealed that around 45% of visitors came to *Pasikudah* were not new to the beach.

Transport to *Pasikudah*

Table-5: Mode of Transport to *Pasikudah* (N=80)

| Mode of Transport | Frequency | Percentage |
|----------------------------|-----------|------------|
| Public Transport | 7 | 8.8 |
| Own vehicle transportation | 47 | 58.8 |
| Private hire vehicle | 26 | 32.5 |

(Source: Field Survey Data, 2016)

According to Table 4, it was found that, among total visitors around 59% of visitors used their own transport vehicle to visit *Pasikudah*. Around 33% of respondents came to *Pasikudah* by hiring private

vehicles such as van/bus. Around 9% of respondents used public transport.

Travel Plan of Visitors

Table-6: Travel plan of Visitors to *Pasikudah*

| | Frequency | Percent |
|--------------------|-----------|---------|
| Multi destination | 36 | 45.0 |
| Single destination | 44 | 55.0 |
| Total | 80 | 100.0 |

(Source: Field Survey Data, 2016)

Data obtained related to travel plan of visitors revealed that the majority of the respondents (55%) had

been planned to visit *Pasikudah* as sole destination. Rest (45%) of the respondents had been planned their

tour as a multi trip and *Pasikudah* was one of the destination.

Total Expenditure on *Pasikudah* Beach Visit (N=80)

Total expenditure on *Pasikudah* beach visit for a respondent was calculated by sum up the expense on travel cost to *Pasikudah*, time cost to *Pasikudah*, accommodation expenses, parking cost and other expenses incurred in *Pasikudah* beach.

According to table 7 shown below, average travel cost incurred to visit *Pasikudah* beach was estimated as Rs. 357.35/- . It ranges between Rs. 25.00/- and Rs. 2,000/-. Data revealed that Rs. 269.96/- was averagely spent by a respondent as time cost. In time cost analysis only employed respondents were included, therefore except employed respondents others time costs were assumed to be zero.

Parking cost incurred in beach trip was estimated as Rs. 9.77/- per person and it ranged between Rs. 0.17/- and Rs. 50.00/-. The lowest parking costs were observed while visitors came to visit *Pasikudah* in groups. While estimating accommodation cost per person per day per visit, it was found that the mean accommodation cost was around Rs. 140/- and it ranged between 0 and Rs. 2500.00/-. Similarly, other expenses made on *Pasikudah* beach were calculated per visit. Mean value for a person spent on other expense was Rs. 239.57/-. It ranged between Rs. 50/- and Rs. 2500.00/-

Total expenditure on *Pasikudah* beach visit minimum value was Rs. 45.00/- and the maximum value was Rs. 4220.50/-. Therefore, the mean value for total expenditure on *Pasikudah* beach visit was Rs. 989.40/- per person per visit.

Table-7: Costs Incurred at *Pasikudah* Beach Visit (N=80)

| Expenditure (Rs.) (per person per visit) | Minimum | Maximum | Mean | Std. Deviation |
|---|---------|---------|--------|----------------|
| Travel cost to <i>Pasikudah</i> | 25.00 | 2000 | 357.35 | 430.21 |
| Time cost on <i>Pasikudah</i> beach visit | 0 | 1333.33 | 269.96 | 303.11 |
| Accommodation expense | 0 | 3000.00 | 140.27 | 447.84 |
| Other expense on beach site | 50.00 | 2500.00 | 239.57 | 382.71 |
| Parking expense on beach site | 0.17 | 50.00 | 9.77 | 6.78 |
| Total expenditure on <i>Pasikudah</i> beach visit | 45.00 | 4220.50 | 989.40 | 932.66 |

(Source: Field Survey Data, 2016)

Regression Analysis

Table-8: Regression Analysis Results

| | B | Std. Error | Sig. |
|---|----------|------------|-------|
| (Constant) | 260.97 | 986.61 | 0.792 |
| Distance to <i>Pasikudah</i> | 4.69** | 1.68 | 0.007 |
| Age | -0.592 | 11.441 | 0.959 |
| Years of Schooling | -26.263 | 49.887 | 0.600 |
| Average month income | 0.016** | 0.002 | 0.000 |
| Family size | 65.355 | 117.70 | 0.580 |
| D ₁ Local visitors | -313.829 | 415.275 | 0.452 |
| Dependent Variable: Average expenditure on <i>Pasikudah</i> beach visit | | | |

(Source: Data Analysis SPSS Output, 2016) (N=80, R²=0.551, Adj. R²=0.514 F=14.927**)

** p < 0.01

Results of the multiple regression analysis for the factors affecting total expenditure on *Pasikudah* beach visit shown in table 8. Data revealed that the adjusted R² was 0.514. This implied that about 51% of the variation in the total expenditure on *Pasikudah* beach visit was explained by the variables such as distance to *Pasikudah* beach, age, years of schooling, average family income, household size and origin of visitors to *Pasikudah* beach.

However, the total expenditure on *Pasikudah* beach visit was significantly affected by total monthly income (p < 0.01) and travelling distance to *Pasikudah* (p < 0.01).

The equation of the estimated regression function is given as:

$$Y = 260.97 + 4.69 X_1 - 0.592 X_2 - 26.263 X_3 + 0.016 X_4 + 65.355 X_5 - 313.829 D_1$$

It can also be stated as follow-

Total expenditure on *Pasikudah* beach visit = 260.97 + 4.69 Distance to *Pasikudah* beach - 0.592 Age - 26.263 Years of schooling + 0.016 Average family income + 65.355 Household size - 313.829 Local visitors

The results show, an increase in income by one rupee while keeping other variables constant in the model, the cost will be increased by Rs. 0.016/- ($p < 0.01$). This could be explained by the fact that as income increases, there is a chance of allocating more money to their monthly budget for leisure activities, obviously, the travel cost will rise. Every km of additional distance to *Pasikudah* beach increase the travel cost by Rs. 4.69/- per km at 1% significant level.

Interestingly there were no significant correlation found in household size, origin of visitors and age on total expenditure on *Pasikudah* beach visit. According to the model, increase in household size by one person while keeping other variables constant an addition in travel cost was observed by Rs. 65.355/- but the change is insignificant. While interpreting dummy variables, origin of visitors had insignificant and negative influence on average expenditure on *Pasikudah* beach visit. It implies local visitors spent Rs. 313.83/- less than non-local visitors.

CONCLUSION

More non-local visitors (70%) visit *Pasikudah* than local visitors and the visitors who visited the *Pasikudah* beach for the first time (55%) were higher than regular visitors of *Pasikudah* beach at survey period, which indicates the popularity of *Pasikudah* beach among visitors in Sri Lanka. Mean travel cost to *Pasikudah* was Rs. 357.35/- and total expenditure on *Pasikudah* beach visit was Rs. 989.40/-. Total expenditure on *Pasikudah* beach visit was significantly affected by total monthly income and travelling distance to *Pasikudah* beach.

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