

Chapter 4

Empirical Results

This section analyzes the data that is completely processed. Willingness to pay, in terms of economic evaluation, will discuss later in section 4.3. The researcher will explore general characteristics of Thai tourists and foreign tourists who are boarding a domestic flight to Phuket. Then, their preferred activities during their stays are also expressed.

4.1 Socio-economic Characteristics of the Respondents

With the consideration of different characteristics of tourism in inbound and outbound, the collected data is analyzed in Thai tourists and foreign tourists separately.

The socio-economic data gives us new insights. Young adult aged from 21 to 35 regardless of gender, were the most prevalent group to travel to Phuket (approximately 60%). About a half of foreign tourists (51%) work for private companies while only about a third (34%) of Thai respondents do so. About 21% of Thai respondents work for the government while only about nine percent of foreigners do.

The majority of respondents have a bachelor degree (see Table A.1.3). Working as an employee, Thai people would receive USD 7,500 in annual income. On the other hand; the scatter of foreign residents' annual income looks like a normal distribution curve.

4.2 Tourists Attitude and Behavior in relation to Coral Reef

What do these tourists do in Phuket? Both Thai travelers and foreigner travelers behave very differently. Thai respondents (43%) tend to choose scenery as the main tourist attraction of Phuket while only 19% of non-Thai agreed. An overwhelming 61

percent of foreign respondents said they prefer the beaches while only about a third (33%) of Thai respondents picked the beach as the main tourist attraction.

Shopping and nightlife ranked among the lowest as the main tourist attraction of Phuket. Only a meager one- percent in both Thai and non-Thai group said shopping was the main island's attraction. Only three percent of non-Thai respondents identified nightlife as the main attraction of the island while only one percent of Thai respondent agreed.

Remarkably more Thai respondents identified coral reefs as the main attraction of Phuket Island. Almost a fifth (19%) of Thai respondents value coral reef most as the tourism asset of the island while only a tenth (11%) of foreigners agreed.

It is also important to note that about sixty percent of travelers in both groups would not visit coral reefs at all on their trips to beaches. Twenty four percent of Thai respondents said they visited a coral reef at least once a year while only twenty percent of foreigners do.

4.2.1 Preferred Marine Activities

Although more Thai respondents place their values on coral reefs as the main attraction for Phuket Island only six percent said diving was their most enjoyable marine activity and only eight percent preferred snorkeling. The figures were low compared to about thirteen percent in none-Thai group for each activity: snorkeling and diving.

In both Thai and non-Thai groups, relaxing on the beach was their most enjoyable activity followed by swimming. However, as their third most popular choice, surprisingly, more Thai respondents ranked Jet skiing (11%) over diving and snorkeling (eight and six percent respectively).

Thai respondents decidedly had more affinity to motorized marine activities compared to their foreign counterpart. When combined jet skiing and banana boating, 17 percent of Thai respondent said they enjoy these activities most while only eight percent of the non-Thai respondent agreed.

4.2.2 Traveler's attitude towards coral reef conservation

Table A.1.4 depicts travelers' attitude toward tourism in the relationship with the coral reefs and environmental damages. When questioned about reef degradation, 62% of Thais believe (agree, and strongly agree) that tourism industry is the main cause of degradation; while only 49% of foreign tourists do.

In general, both groups of tourist stress that the conservation of coral reefs are indispensable. However, perhaps the most striking differences between the two groups of respondents is that none of the Thai respondents (0%) strongly agreed with the statement saying that coral reefs should be conserved because it is an important tourist attraction. Almost half of their foreign counterpart (43%) agreed strongly to it.

This offers a glimpse into a complex value system associated with the Thai group. As more Thai respondents said coral reefs were the main attraction of Phuket Island, none of them strongly agreed that it should be conserved. While 85% of non-Thai agree to this statement (agree and strongly agree), only 51% of Thai respondent agreed with it.

A casual glance at the table would reveal that the Thai group tends to be more reserved about voicing strong opinions (strongly agree). However, the group seems to have a more decisive idea compared to the foreign group that a coral reef conservation program should be operate and paid for by the Thai government (43% versus 36% in the foreign group). In total, 88% in the Thai group agreed to this statement while 67 percent in the foreign group do.

4.2.3 Identification of Coral reefs in Healthy and Unhealthy state

Tourists were asked to rate a set of two coral pictures as good, fair, or poor. Although a good portion of tourists was able to identify correctly the state of coral in each set of photograph many made uncertain and erroneous selection. It is important to note that each individual was shown only one set of photograph to answer this question. They were not able to compare the two sets of pictures. (See Table A.1.4)

4.3 Regression Analysis

Regression Analysis assists academics in analyzing the relationship at least two variables. After collecting large size of data, the writer can generate a model with 90 percent of confidence interval.

Before calculating the WTP, linear regression analysis is utilized in order to understand the correlation of variables. The statistics results are indicated on Table A.2.3 and A.2.4 for Thai and foreign tourists.

Hanemann (1989) generated the logistic model of Mean WTP. It can be written as:

$$\text{Mean WTP for a Package Tour} = 1 / \beta_1 * (\text{Ln} (1 + \text{Exp} (\alpha_0 + \beta_2 (Q) + \Sigma\beta_i S_i)))$$

Where parameters α_0 and β_1 will be estimated parametrically and the benefit of a package tour to Coral Island or WTP will be calculated above equation.

For the first run, in the Thai case, it is found that six variables, PRICE, PIC and four socio-economic data effect of willingness to pay. The coefficient of PRICE has a positive insignificant effect of WTP. Gender also has some effect on independent variable. Other four variables: PIC, AGE, OCU, INCOME have some negative relationship toward WTP. All these socio-economic characteristics contain powerful effect greater than the factor of price.

For the first run, in the foreign tourists' case, the sign of coefficient are shown in Table A.2.2. They are totally different from the results in Thai case. It is also shown that the main factors to closely scrutinize are the socio-economic data.

This proves that the socio-economic characteristics should mislead our analysis. The researcher tries the second run. All statistics are printed in Table A.2.3 and Table A.2.4. Finally, PIC and PRICE are selected to estimate the WTP.

The second run renders the easier model for Thai and non-residents. After printing a SPSS, replacing all such statistics, the writer could write models accordingly.

$$\text{Mean WTP for Thais} = 1/0.001 * (\text{Ln}(1 + \text{Exp}(-1.721 - 0.31 (\text{PIC}))) \dots \dots \dots (\text{A})$$

$$\text{Mean WTP for Foreigners} = 1/0.001 * (\text{Ln}(1 + \text{Exp}(-0.814 - 0.105 (\text{PIC}))) \dots \dots \dots (\text{B})$$

Equation (A) and (B) represents the willingness to pay for viewing the good quality of coral reefs. If a Thai needs to improve one unit of coral reef, he would like to pay USD 31.40 per person per trip. In so doing the same thing, foreign tourists would like to pay USD 28.84 per person per trip. (see Table A.2.5)

The study apply to determine the total potential-use value of coral reefs at Coral Island, Phuket as follows;

Pop of Thai tourists = 10 percent of total tourists travelling to Koh Hei

Pop of foreign tourists = 90 percent of total tourists travelling to Koh Hei

The 2000's total tourists = 32,400, Assumed that growth in 2001 year equal to 3%.

Mean WTP for Thai Group = 31.40 USD per person.

Estimated number of visitors = 3,337 persons

Total WTP value for Thai group = USD 104,781.80 per year.

Mean WTP for foreign tourists = 28.84 USD per person

Estimated number of Visitors = 30,035

Total WTP for foreign group = USD 866,209.40 per year.

The total potential use value of such coral reefs becomes USD 970,991.20.

Note:

Tourist number is based on the interview with Mrs. Wallace Prachantaboot, GM Phuket Cabana, 19 April 2001