

## **EVALUATION OF THE 2005 ECOTOURISM QUALITY STANDARD FORM OF TOURISM DEVELOPMENT BUREAU, DEPARTMENT OF TOURISM, MINISTRY OF TOURISM AND SPORTS**

Prayoon Dasri<sup>1</sup> and Podchanee Sriwichian<sup>2</sup>

<sup>1,2</sup>Lecturer, Geo-information for management program, Graduates School, KasemBundit University, 1761 Pattanakarn Road, Saunlaung, Bangkok 10250, Thailand.

### **ABSTRACT**

This research is an assessment of the 2005 ecotourism quality standard evaluation form of Development of Tourism, Ministry of Tourism and Sports. It aims to assess the quality of ecotourism by means of verifying reliability and correlation leading to the confidence in the use of that evaluation form as a data collection tool in researches in the field of ecotourism. The objectives of the research are as follows: 1. to assess the ecotourism quality standard evaluation form by assessing the confidence level. 2. to verify the ecotourism quality standard evaluation form by assessing the correlations. 3. to provide a guideline on the use of ecotourism quality standard evaluation form as a research tool in ecotourism. Sample population consists of five groups, each group consists of 30 people. The tool for this study is the evaluation form of ecotourism quality standard of the year 2005 by Department of Tourism. The statistics used in the data analysis are descriptive statistics; mean, percentage, Cronbach's alpha coefficient and the Pearson Product Moment correlation. According to the result of evaluation of the form of ecotourism quality standard, reliability values of the overall of all five sample groups are at alpha-coefficient of .7380. In addition, the results of the data analysis to determine the correlation coefficient of the evaluation form were found that there are 91 pairs, the correlation coefficient at .01 level of 32 pairs and the significant pairs at .05 level of 8 pairs. The overall correlation coefficient of the data was statistically significant at .01 level at  $r = .693$ .

**KEYWORDS:** Reliability, Correlation, Statistical significance.

### **1. Introduction**

The search's results aim to explore the quality standard of ecotourism at Pang Sida National Park, Sa Kaew province. The purposes of study one to determine the level of quality

standard of ecotourism of each component of ecotourism and examine the overall standard of four components at Pang Sida National Park. The four components are 1. the potential of ecotourism, 2. utilization the sustainability of area, 3. knowledge and awareness management and 4. participations of local community in ecotourism activities. The scores are set for 40, 20, 20 and 20 for components 1 to 4 respectively with the total scores of 100 [1]. The scores obtained from this study are compared with the standard scores as follows; good level (61-70), very good level (71-80) and excellent level (81-100) [1]. According to the results from questionnaires conducting on 5 sampled groups, the overall result is 66.42 which is at the good level and is at the same level with the standard scores of the previous study conducted at Khao Yai national park which having the score of 64 [1]. Therefore, it can be concluded that the standard of the form of tourism department is at a good standard level.

Although the result of quality standard of ecotourism of the year 2005 is used for data collection and yield the result at a good quality level, researchers are not certain with the quality standard form being used as a tool to assess other ecotourism sites, also, if the correlations of the four components are statistically significant or not or reliable enough to be used for other area of ecotourism. According to these reasons, researchers therefore analyze the quality standard form used at Pang Sida NP with the analysis of reliability and coefficient in order to gain confidence of using these standard questionnaires as data collection tools in other sites in a wider spectrum.

## 2. Objectives of the research

- 2.1 To evaluate the ecotourism quality standard form by the method of confidence evaluation.
- 2.2 To evaluate the ecotourism quality standard form by examining the correlation values.
- 2.3 To provide a confidence in the implementation of the ecotourism quality standard form to be used as ecotourism research tools.

## 3. Hypothesis

The indexes of ecotourism quality standard of evaluation forms are statistically significant.

#### 4. Definition

Quality standards index refers to the factors or variables that are defined to determine the components of a tourism components [1].

Index are defined as factors or variables that determine the characteristics of each index in terms of qualitative or quantitative values [1].

Quality standards of tourism destinations means tourism destinations with indicators of potentiality, efficiency and quality [1].

Reliability means consistency, accuracy and predictability [2].

Correlation refers to the relationship between variables or between two or more set of data which the relationship is positive or negative. The data derives from the same thing in pairs [3].

Confidence refers to confidence and correlation or value of confidence and quality standards based on the data analysis of the ecotourism model used as the data collection tool.

#### 5. Literature review

In science society, when something was invented or created, it will need to be examined or tested before using in proving the quality and reliability of that device. These inventions may include tools and assessments, tests, and examinations. [4] In addition, Kalaya Vanichbancha [2] stated that researches are method to find the truths. Hence, quality of tool is necessary for a research, if a tool is not reliable, then the research will not be a quality research.

For that reason, Tourism Development Bureau of Department Tourism, Ministry of Tourism and Sports, created a quality standard evaluation form to ensure the confidence and reliability of data collection tools for researches. The quality standards assessment tool was used at Phranakhon Si Ayutthaya historical park and achieved excellent score. [1] The assessment of quality standard was also used at Khao Yai National Park and achieved a score of 64.0, a good quality level. As a result, the author of this study has adopted this tool for assessment ecotourism quality standard at Pang Sida National Park and achieved the score of 66.42% [5].

Wanchai Akkarataweewong [6] evaluated the ecotourism potential of Ban Wang Kham, Muang District, Chaiyaphum province, and found factors affecting ecotourism at Ban Khamkham are manners community leader and local people in the community. Sirichanya Praprukij [7] evaluated the potential of ecotourism in Muang district, Trad province and

concluded that the overall tourism potential is moderate. The study was similar to the one conducted by Sureepon Thammitpong, Puangpaka Kaewkrom, Surangrat Pansang [8] who studied the quality of natural waterfall attractions by applying the quality standard assessment model of the Department of Tourism. [9] The research found that: 1) Environmental management in Khao Kho National Park Phetchaboon province is at excellent level 2) Tourism development of the waterfall with care by national park 3) The students have knowledge and understanding of the conservation of ecotourism sites in the community before and after the use of learning sets at the .05 level of significance.

Sin Panpinij [4] stated the importance of the assessment of research tools before using as follows.

1. Know instructions on how to use research tools.
2. Sorting of content and questions based on purpose.
3. Know the complexity and completeness of the question set.
4. Make precise questions and are easy to understand.
5. Evaluate time to answer questions. A good research tool should not take too much time because the respondents may be tired and not answered correctly.

In addition, Sin Panpinij has also set the level of reliability of the score on the basis of the following criteria.

- 0.80-1.00 Very high reliability.
- 0.60-0.79 Relatively high reliability.
- 0.40-0.59 moderate reliability.
- 0.20-0.39 low reliability.

## 6. Research methodology

This research on evaluation of the 2005 quality standard form of ecotourism of Tourism Promotion Bureau, Tourism Department, Ministry of Tourism and Sports is a quantitative research consists of the following parts;

### 6.1 Research area: Pang Sida National Park.

The research area is located in Muang and Wattana Nakhon districts, Sa Kaew province. The total area accounts for 9/10 of the park.

## 6.2 Sample population consists of five groups as follows;

Group 1: 30 local people who live in the vicinity of Pang Sida national park. They are sampled from two sub districts of two districts each of 15 people.

Group 2: 30 members of Pang Sida Conservation association.

Group 3: 15 Personnel of Pang Sida national park and 15 personnel of Ta Praya national park.

Group 4: 15 employee of National park and animal conservation office and 15 employee of Tourism Department.

Group 5: 30 of members of Tourism Association, Tourism Resources Conservation Association and Natural and Adventure Tourism Association.

Quota sampling is used to determine the proportion of each group equally. There are 5 groups, each group consists of 30 people, total is 150 people.

## 6.3 Research tools

A model for assessing the ecotourism quality standard by Department of Tourism, Ministry of Tourism and Sports. The ecotourism quality standard assessment form has 4 elements and 14 indexes of ecotourism quality standards. The details are as follows.

- 1) Ecotourism potential of that area
- 2) Management of the use of the area to achieve sustainability.
- 3) Knowledge management and promote awareness.
- 4) Community participation in tourism activities.

The ecotourism quality scores for each element are as follows; element 1 a standard score of 40, element 2 a standard score 20, element 3 a standard score of 20 and element 4 a standard score of 20 points. The total score for each component is a percentage of the fixed score.

## 6.4 Data Analysis

The data analysis was performed to evaluate the assessment form by using Cronbach's alpha coefficient (Alpha:  $\alpha$  Coefficient) and Pearson's product moment correlation coefficient methodologies.

## 7. Results

### 7.1 Analysis of reliability of each component of the assessment form

Analysis of the reliability of the evaluation form is based on the data obtained from the five sample groups. The analysis is based on the formula for the alpha coefficient. ( $\alpha$ -Coefficient) to determine level of reliability of the sample data as shown in table 1.

**Table 1 The reliability of the overall assessment of the five sample groups.**

RELIABILITY ANALYSIS-SCALE (ALPHA)				
Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
W1.1	43.3100	77.3479	.1119	.7464
W1.2	43.1900	77.2405	.1715	.7388
W1.3	43.3233	76.8427	.1147	.7478
W1.4	43.6000	79.4094	-.0324	.7738
W2.1	43.4700	65.4236	.6336	.6905
W2.2	43.4700	65.4236	.6336	.6905
W2.3	43.1100	69.4324	.5369	.7055
W2.4	43.9967	67.0486	.4030	.7174
W3.1	43.5167	68.4846	.5675	.7016
W3.2	43.4700	68.2021	.5201	.7046
W3.3	43.0567	74.4682	.3125	.7274
W3.4	43.7567	75.0025	.2026	.7385
W4.1	43.2233	67.5286	.5237	.7033
W4.2	43.9500	69.7240	.3723	.7207

Reliability Coefficients

N of Cases = 150.0    N of Items = 14    Alpha = .7380

According to the table 1, the reliability of the overall value of the five sample groups of the total of 150 people was equal to .7380. The highest confidence value index was the quality standard index 4, Component 1 with the value of .7738, followed by the quality standard index 3, component 1, with value of .7478 and the quality standard index 1, component 1 with the value of .7464. The lowest quality indexes are quality index 1 and quality index 2 components 2 with the equal value of .6905.

**Table 2 The reliability of sample group 1**

RELIABILITY ANALYSIS-SCALE (ALPHA)				
Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
W1.1	46.3000	45.6655	.2375	.6481
W1.2	46.4333	44.6678	.4087	.6237
W1.3	46.000	48.3448	.0810	.6733
W1.4	46.7000	55.2517	-.2613	.7331
W2.1	45.9000	42.2310	.5951	.5971
W2.2	45.9000	42.2310	.5951	.5971
W2.3	45.9000	42.2310	.5951	.5971
W2.4	46.2000	4302690	.4437	.6158
W3.1	45.9667	45.9644	.3537	.6325
W3.2	45.5000	48.5345	.1143	.6640
W3.3	45.6000	47.7655	.2055	.6507
W3.4	46.4667	46.8782	.1755	.6576
W4.1	46.1000	43.8862	.3886	.6240
W4.2	46.7000	42.2172	.4008	.6196

Reliability Coefficients

N of Cases = 30.0      N of Items = 14      Alpha = .6580

According to table 2, the confidence of the sample of group 1 by evaluation of 4 components 14 quality indexes, the overall value was .6580. The highest quality index was the standard quality index 4 elements 1, with the value of .7331. There are 3 indexes with lowest quality value, which are quality index 1, 2 and 3 component 2 with the equal value of .5971.

**Table 3 The confidence scores from sample population group 2**

RELIABILITY ANALYSIS-SCALE (ALPHA)				
Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
W1.1	39.2667	37.5126	.6655	.7286
W1.2	38.7333	50.8230	.3519	.7726
W1.3	38.9333	37.9264	.8373	.7095
W1.4	38.4667	46.4644	.2328	.7831
W2.1	39.6000	40.8000	.7610	.7248
W2.2	39.6000	40.8000	.7610	.7248
W2.3	39.3667	46.3092	.5781	.7522
W2.4	41.9000	49.1276	.0984	.7957
W3.1	40.2667	51.7885	.0380	.7846
W3.2	40.5000	55.7759	-.3826	.8062
W3.3	38.8667	49.2920	.4455	.7658
W3.4	39.5333	41.8437	.6189	.7384
W4.1	39.5333	45.1540	.3844	.7637
W4.2	41.4000	51.4207	.0576	.7849

Reliability Coefficients

N of Cases = 30.0      N of Items = 14      Alpha = .7760

According to table 3, the reliability values of sample population group 2 has the reliability of .7760. The highest quality standard index was the standard quality index 2 component 3, with confidence value of .8062. This follows by quality standard value of index 4 component 2, with the confidence of .7950, and the quality standard index 2 of component 4, with the value of .7849. The quality index with the lowest confidence level is the standard quality index 3 components 1, with a confidence value of .7095.

**Table 4 The reliability of sample population group 3**

RELIABILITY ANALYSIS-SCALE (ALPHA)				
Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
W1.1	46.4000	59.3517	.5771	.7304
W1.2	45.5000	59.5000	.2873	.7508
W1.3	46.0333	68.8609	-.1721	.7875
W1.4	46.1333	54.4644	.4270	.7363
W2.1	45.9333	56.0644	.4222	.7361
W2.2	45.9333	56.0644	.4222	.7361
W2.3	45.2667	58.6161	.3948	.7393
W2.4	45.8667	61.4299	.3016	.7480
W3.1	46.0333	55.1368	.6242	.7166
W3.2	45.7000	54.0103	.7219	.7076
W3.3	46.2000	61.2690	.3622	.7438
W3.4	46.2667	67.0399	-.0905	.7936
W4.1	45.333	56.5057	.5975	.7216
W4.2	46.4667	55.0161	.6056	.7176

Reliability Coefficients

N of Cases = 30.0      N of Items = 14      Alpha = 7559.

According to table 4, the confidence level of the sample population group 3 is 0.7559. The highest reliability index is standard index 4 component 3, with the value of .7936 followed by the quality standard index 3, component 1, with the value of .7875. The lowest quality standard index is the quality standard index 2 component 3 with the confidence level of .7076.

**Table 5 The reliability of the sample population group 4**

RELIABILITY ANALYSIS-SCALE (ALPHA)				
Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
W1.1	47.4333	73.6333	-.0787	.8115
W1.2	47.8000	62.7172	.6201	.7623
W1.3	47.5333	71.7747	.0086	.8088
W1.4	48.9333	67.5126	.2410	.7904
W2.1	47.0667	62.8920	.4697	.7716
W2.2	47.0667	62.8920	.4697	.7716
W2.3	47.1000	60.4379	.6831	.7546
W2.4	47.333	58.8506	.5381	.7640
W3.1	47.1333	63.9126	.4949	.7706
W3.2	47.1667	62.9713	.5264	.7676
W3.3	46.9000	67.6793	.2491	.7893
W3.4	48.1000	64.4379	.4043	.7773
W4.1	47.1333	57.3609	.6378	.7531
W4.2	47.1667	62.1437	.4641	.7718

Reliability Coefficients

N of Cases = 30.0      N of Items = 14      Alpha = 7898.

According to table 5, the confidence level of the sample population group 4 has the confidence level of .7898. The highest quality standard index was the quality standard index 1 component 1 with the value of .8115, followed by the quality standard index 3, component 1, with the reliability value of .8088. The lowest quality standard index is the quality standard index 1 of component 4 with the confidence value of .7531.

**Table 6 The reliability of the sample population group 5**

RELIABILITY ANALYSIS-SCALE (ALPHA)				
Item-total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
W1.1	37.1500	88.3647	-.0964	.7060
W1.2	37.4833	86.5256	.0218	.6871
W1.3	38.1167	86.5807	-.0546	.7126
W1.4	37.7667	75.8402	.1951	.6852
W2.1	38.8500	70.8129	.6633	.6147
W2.2	38.8500	70.8129	.6633	.6147
W2.3	3709167.	76.3118	.3324	.6566
W2.4	38.6833	77.9049	.2321	.6718
W3.1	38.1833	68.4221	.6716	.6063
W3.2	38.4833	70.7325	.6628	.6144
W3.3	37.7167	76.7532	.3765	.6518
W3.4	38.4167	83.5876	.0719	.6908
W4.1	38.0167	72.9394	.4045	.6448
W4.2	38.0167	79.2152	.2112	.6739

#### Reliability Coefficients

N of Cases = 30.0      N of Items = 14      Alpha = 6784.

According to table 6, the confidence level of the sample population group 5 has the confidence level of .6784. The highest quality standard index was the quality standard index 3, component 1, with the value of .7060

Considering the distribution of confidence or alpha coefficient based on the assessment of the five population groups, the distribution of confidence is from high to low. They are listed in Table 7.

**Table 7 The distribution of confidence value of ecotourism quality standards in Pang Sida National Park.**

Sampling Group	Confidence Value	Rank
Group 4	.7898	1
Group 2	.7760	2
Group 3	.7559	3
Group 5	.6784	4
Group 1	.6580	5
Average 5 Groups	.7380	-

According to table 7, the overall confidence level of the five groups of sample population is .7380. The distribution of the confidence level from high to low are as follows; highest is group 4 with .7898 confidence level, followed by group two with .7760. The third highest group is group 3 with the confidence of .7559, 4<sup>th</sup> is group 5 with .6584 and 5<sup>th</sup> is Group 1 with the value of .6580.

## 7.2 Data analysis of correlation values from the evaluation form.

Data in the evaluation form is the result of questionnaires regarding the ecotourism quality standards in Pang Sida National Park. There are 150 participants divided into 5 sample groups. The result of questionnaires is applied in this analysis in order to find correlation values between 2 variables or 2 data which have the same raw score. Then, the research will focus on Pearson Product Moment Correlation for data analysis.

There are three purposes of the analysis by using Pearson Product Moment Correlation. The first purpose is to indicate correlation among data based on the result of questionnaires by finding statistical values which should show a significant value. A further purpose is to evaluate a suitability of questionnaires whether its significant value is appropriate to be used as a tool to assess the quality of ecotourism or not. The last purpose is to find an improvement of this analysis and questionnaire method. As shown briefly in the table 8.

**Table 8 The relationship of data of ecotourism quality standard assessment in Pang Sida National Park.**

	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1
1.1 $r_{xy}$ Sig	1.00 - -												
1.2 $r_{xy}$ Sig	.147 .072 -	1.00 -											
1.3 $r_{xy}$ Sig	.301 ** .000	.103 .210 -	1.00 -										
1.4 $r_{xy}$ Sig	.049 .550 ** .001	.261 ** .001	.049 .555 -	1.00 -									
2.1 $r_{xy}$ Sig	.104 .205 -	.069 .400 -	.088 .285 -	.056 .494 -	1.00 -								
1.5 $r_{xy}$ Sig	.104 .205 -	.069 .400 -	.088 .285 -	.056 .494 -	1.00 .00 -	1.00 -							

**Table 8 (continued) The relationship of data of ecotourism quality standard assessment in Pang Sida National Park.**

	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1
1.6 $r_{xy}$ Sig	.031 .708	.108 .188	.039 .638	.034 .682	.460 ** .000	.460 ** .000	1.00 - .						
2.2 $r_{xy}$ Sig	.057 .485	.131 .110	.132 .107	.117 .154	.292 ** .000	.292 ** .000	.305 ** .000	1.00 - .					
3.1 $r_{xy}$ Sig	.057 .488	.018 .823	.001 .986	.185 * .024	.488 ** .000	.488 ** .000	.317 ** .000	.325 ** .000	1.00 - .				
3.2 $r_{xy}$ Sig	.128 .118	.066 .419	.073 .375	.164 * .045	.164 * .045	.451 ** .000	.441 ** .000	.471 ** .000	.693 ** .000	1.00 - .			
3.3 $r_{xy}$ Sig	.029 .722	.048 .561	.039 .637	.153 .062	.152 ** .000	.312 ** .000	.324 ** .000	.037 .649	.468 ** .000	.321 ** .000	1.00 - .		
1.7 $r_{xy}$ Sig	.147 .072	.176 * .031	261* * .001	.141 .086	.141 .086	.149 .070	.129 .115	.179 * .028	.021 .799	.002 .984	.055 .506	1.00 - .	
4.1 $r_{xy}$ Sig	.015 .852	.214 * .009	.052 .530	.005 .952	.005 ** .000	.305 ** .000	.528 ** .000	.198 * .015	.409 ** .000	.365 ** .000	.279 ** .000	.24** .002	1.00 - .
4.2 $r_{xy}$ Sig	.075 .359	.042 .609	.055 .503	.165 * .044	.165 044	.224 ** .006	.249 ** .002	.335 ** .000	.442 ** .000	.461 ** .000	.145 ** .076	.029 728	.448 .000

\*At confidence level 0.05, \*\*At confidence level 0.01

According to table 8, the data were analyzed by 4 component models and 14 quality index. After data combination, the amount of data is 91 pairs. There are 32 pairs with a significant value at .01 and 8 pairs with a significant value at .05. As a result, overall data, there are 40 pairs or 43.96% of 91 pairs having a statistically significant relationship.

In addition, the results of the analysis also found the total correlation of data from evaluation form was a statistically significant of positive correlation at .01 level at  $r = .693$ .

According to the result of data analysis of evaluating reliability and correlation of data based on the result of questionnaires regarding the ecotourism quality standards in Pang Sida National Park, the reliability values of five sample groups are shown as alpha-coefficient at .7380. Reliability of the first sample group is alpha-coefficient at .6580, the second sample group at alpha-coefficient .7760, the third sample group at alpha-coefficient .7759, the fourth sample group at alpha-coefficient .7898 and the fifth sample group at alpha-coefficient .6780.

In addition, the result of correlation analysis between standard components and quality index is shown that there are 32 pairs with a significant value at .01 and 8 pairs with a significant value at .05. As a result, overall data, there are 40 pairs or 43.96% of the total 91 pairs having a statistically significant value.

In overall, the evaluation form regarding the ecotourism quality standards in Pang Sida National Park has a strong reliability value and a good correlation coefficient. The reliability value for usability is high. It indicates that this evaluation form can be used as a tool for data collection in other studies.

Therefore, the principle of confidence in the implementation of this ecotourism quality standard consists of the confidence at good level (over 0.7) and the correlation at high with the  $r$  value greater than 0.7. i.e.

$$\text{Confidence value} = \text{confidence level} + \text{correlation}$$

The results of this study have a total confidence level of .7380 and a correlation coefficient of 43.96.

It can also be considered that; Confidence value = Quality standard level + Confidence level. Confidence values are 66.42 and .7380.

## 8. Conclusion and Discussion

### 8.1 Conclusion

According to the result of data analysis by using reliability values and the result of evaluation form regarding the ecotourism quality standards in Pang Sida National Park with 150 participants divided into 5 sample groups, the reliability values of five sample groups is .7380 .This value expressed a great reliability.

Furthermore, the reliability values of each participant group will be explained in the following detail .Reliability of the first sample group is .6580 .Reliability of the second sample group is .7760 .Reliability of the third sample group is .7759 .Reliability of the fourth sample group is .7898 .Finally, reliability of the fifth sample group is .6784 .Regarding the result of correlation analysis by using the component models and quality index, 40 pairs showed a statistically significant value including 32 pairs with a significant value at .01 and 8 pairs with a significant value at .05.

Regarding the result of correlation analysis by using the component models and quality index, the level of correlated relationship is at high level with  $r=.693$ . There are 40 pairs showed a statistically significant value including 32 pairs with a significant value at .01 and 8 pairs with a significant value at .05. These 40 pairs account for 43.96% of the total 91 pairs.

As mentioned, for the result of reliability and correlation analysis, this evaluation form regarding the ecotourism quality standards can be used as a tool for data gathering because it showed a great reliability value and correlation coefficient .In addition, its reliability in terms of usability for data gathering method is high as well.

### 8.2 Discussion

In terms of data analysis based on the result of questionnaires regarding the ecotourism quality standards, the reliability and correlation values are defined in a good level and high reliability .However, in case of considering the result of data analysis through each component model and quality index, the result of analysis highly corresponded to participants 'profile .For instance, the first sample group and the fifth sample group are groups of participants who are less familiar with ecotourism .Hence, the reliability level is moderate with the reliability value of the first sample group of .6580 and the fifth sample group of .6784.

The sample groups 2, 3 and 4 are more familiar with ecotourism in terms of planning, development, fund allocation and resource allocation to enhance ecotourism .Therefore, it leads to a high reliability level .The reliability value of the second sample group is .7760, the third sample group is .7759 and the fourth sample group is .7898.

According to the result of reliability as aforementioned, it shows that participants ' knowledge and experiences strongly affect the way that they answered questionnaires . Hence, the correlation and reliability of the evaluation form regarding the ecotourism quality standards in Pang Sida National Park are at high level.

Moreover, the results of the data analysis also show that ecotourism quality standard index among all four elements are related with the correlation coefficient at  $r = .01$  at  $r = .05$  of 40 pairs and was statistically significant at  $r = .693$ , which corresponds to the research hypothesis "the indexes of ecotourism quality standards of evaluation forms have statistically significant relationship"

## References

- [1] Tourism Department, Tourism development bureau. Manual of ecotourism assessment. Bangkok: Tourism Development Press; 2005.
- [2] Kalaya Vanichbancha. Statistics for research. Bangkok: Samlada Partnership; 2016.
- [3] Chusri Wongratana. Technical Using for Research. Bangkok: Chulalongkorn University; 2017.
- [4] Sin Panpinij. Social science research technique. Bangkok: Thai pat press; 2011.
- [5] Prayoon Dasri. Exploring Standard of Ecotourism Destination in Pang Sida National Park, Sa Kaew Province [thesis]. Bangkok: National Institute of Development Administration; 2016.
- [6] Wanchai Akarataweetong. Potential of ecotourism of Bang Wang Kang, Muang district, Chaiyapum province. Journal of humanities and social science, Mahasarakham University 2004;special issue:269-77.
- [7] Sirichanya Praprukij. Assessment of potential of ecotourism in Muang district, Trad province to establish ecotourism travel route [Master of science tourism and environmental management]. Bangkok: Srinakarinwirot University; 2010.
- [8] Sureepon Thammitpong, Puangpaka Kaewkrom and Surangrat Pansang. Research report on environment tourism management sustainability in Petchaboon Province. Institute of research and development, Rajabhat Petchaboon University; 2010.

[9] Tourism Department. Manual of ecotourism assessment. Bangkok: Tourism Development Press; 2008.

#### Authors's Profile



**Prayoon Dasri**, Associate Professor. Lecturer of Geo-information for management program. (Mobile: (+66) 086-0770571, E-mail: prayoon.das@kbu.ac.th). He has graduated in Bachelor of Education Program in Geography at College of Education Prasarnmit, Master of Education Program in Geography at College of Education Prasarnmit, Master of Arts Program in Integrated Tourism Management at National Institute of Development Administration.



**Podchanee Sirvichien**. Lecturer of Geo-informatics for management program. (Mobile: (+66) 084-9026059, Email: podchanee.sri@kbu.ac.th). She has graduated in Bachelor of Science Geography (Map) at Ramkhamhaeng University, Master of Education Industrial Geography at Silpakorn University.