

Sustainable Tourists Behaviour on Environmental Aspects in Pangandaran Beach

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Abstract

This study aims to determine how the level of tourist behavior in environmental aspects of sustainable tourism activities and is useful for reducing the negative impact of environmental pollution on Pangandaran Beach by adjusting actions that need to be taken in the future. This study uses a descriptive quantitative method through a questionnaire with the contents of the questionnaire consisting of the realm of knowledge (knowledge), the realm of attitude (attitude), and the realm of action or (practice) which have been tested for validation and reliability of 30 respondents. Then the research sources used in this study are primary data and secondary data. Research respondents were 100 tourists who visited Pangandaran Beach from 2020 to 2022. Based on the results of the study, it was found that all sub-variables were in the high category on the continuum line, but this is contrary to the phenomenon that occurred on Pangandaran Beach, there are still many tourists who litter. However, tourists feel that sustainable tourism activities are important to do so as not to have a negative impact on the environment on Pangandaran Beach. The sub-variable that has the highest average score is the knowledge sub-variable so that it can be interpreted that tourists' knowledge about sustainable tourism is higher than attitudes and actions, especially in the action sub-variable which is the sub-variable with the lowest score which can be caused by several factors. factors such as education or age.

Keywords: tourist behavior; sustainable tourism; environment.

INTRODUCTION

Tourism is an activity often carried out by people for recreation by visiting a place far from where they live for a certain period. Pangandaran is also a place frequently visited by tourists, popular for its Pangandaran Beach. Tourism activities at Pangandaran Beach are very diverse. However, these activities can harm the environment, such as much rubbish being disposed of carelessly or damaging various existing facilities at the destination. Especially if the large number of visitors visiting Pangandaran Beach can make the environment more damaged. Pudjiastuti also mentioned the behaviour of tourists that caused environmental damage because tourists often littered. (Nissa & Kyuno, 2022). According to UU RI Number 10 Year (Sekretariat Negara Republik Indonesia, 2009) Tourists are people who travel and are obliged to maintain customary values, norms in the surrounding environment, environmental order including maintaining and preserving the surrounding environment. So the need for tourists to maintain their destination when carrying out tourism activities.

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Table 1. Tourists Visiting Pangandaran Beach

Year	International	Domestic	Total (persons)
2017	8.689	2.528.273	2.536.962
2018	-	3.578	3.578
2019	12.233	3.215.063	3.227.296
2020	514	3.939.992	3.940.506

Source: Open Data Jabar (2021)

This negative impact is considered to reduce the attractiveness of Pangandaran Beach, where the destination provides beautiful natural scenery, but the number of scattered garbage damages its aesthetic value. The impact of this deviant tourist behaviour can also harm marine ecosystems. The currents can carry trash on the coast so that the sea is polluted with garbage, and marine animals can also die from eating plastic waste. To suppress this negative impact, various approaches can be used, one of which is the concept of sustainable tourism. This concept emphasizes environmental sustainability so that it can last into the future.

So one of the efforts to overcome the negative impact of environmental pollution can be through the behaviour of tourists who carry out tourism activities according to the concept of sustainable tourism, which is focused on environmental aspects. It is hoped that this research can contribute to the academic knowledge about tourist behaviour in sustainable tourism activities on environmental aspects and give inputs to the policymakers to suppress the negative impacts of environmental pollution on Pangandaran Beach by adjusting the actions that must be taken.

LITERATURE REVIEW

UNWTO (World Tourism Organization (UNWTO) & Spain, 2016) divides sustainable tourism into three aspects, namely socio-cultural, economic and environmental. According to Bramwell (Bramwell et al., 2017) sustainable tourism is an activity that preserves ecosystems and participates in decision-making in public. For sustainable tourism activities to be achieved and carried out properly, it requires assistance from various parties, both managers and tourists, especially in the case of the large amount of waste scattered in destinations mostly caused by tourist behaviour. This research is devoted to the environmental aspects of sustainable tourism because tourists have many negative impacts on the environment at Pangandaran Beach. Environmental aspects are focused on protecting the environment from the impacts given by living things that are active in it, so it is necessary to pay attention to the relationship between the environment and humans (Tamaratika & Rosyidie, 2019).

According to Notoatmodjo (Notoatmodjo, 2007) Behaviour is a response to stimuli generated from outside; this behaviour can be divided into three parts: knowledge, attitude and action. Knowledge divides into knowledge, comprehension, application, analysis, and evaluation. In attitude, there are the domains of receiving, responding and valuing. In action, it is divided into guided response, mechanism and adoption. When behaviour interacts with the environment, it can be in different ways depending on the stimulus, and if a problem occurs, it may not be desired (Hutchison, 2018).

METHODS

This research uses a descriptive quantitative method. *Quantitative research* is a method that reveals the relationship between phenomena or variables that are generated using numbers to show an overview of the phenomena discussed so that the truth of the phenomena that occur can be known. (Bambang, 2013; Hamdi & Bahrudin, 2015; Nenty, 2017). The research instrument used in this study was a questionnaire with contents of the questionnaire which was divided into 2, namely the tourist profile section and 31 topic questions with a distribution of 11 questions in the realm of knowledge, 15 questions in the realm of attitude and five questions in the realm of action. This instrument will be tested for validity and reliability on 30 respondents. The research sources used in this research are primary data and secondary data. Primary data is obtained from the results of respondents who have filled out a questionnaire which the author will

later distribute online with the criteria of respondents who have visited Pangandaran Beach in 2020. Secondary data is obtained from various sources, such as visit data taken from West Java Open Data, phenomenon reports from online news articles and theories from journals.

The population taken came from tourists visiting the city of Pangandaran in 2020, namely 3,939,992. While determining the sample using the Slovin formula with the following calculation formula:

$$n = \frac{N}{1 + N e^2}$$

n= sample size

N= population size

e= percentage of inaccuracy due to sampling error that is tolerable or desired, for example, 10%. The number of samples with the Slovin formula in this study is as follows:

$$n = 3,939,992 / (1 + 3,939,992 \cdot (0.10)^2) = 99,999.$$

The sample is rounded up, so the sample determined in this study is 100 people. The sampling technique used is simple random sampling, namely random data collection with the aim that all tourists who have visited Pangandaran Beach have the same opportunity. In this study, descriptive analysis was carried out with the help of scoring techniques using SPSS. Scoring is the process of determining the score of respondents' answers based on opinion; this study uses a Likert scale as follows. (Widiawati, 2015): Score 5 (strongly agree), Score 4 (agree), Score 3 (neutral/doubtful), Score 2 (disagree), and Score 1 (strongly disagree)

RESULT AND DISCUSSION

Table 2. Scoring Analysis (Sub Variable Knowledge)

Indicator	1		2		3		4		5		Total Score
	F	%	F	%	F	%	F	%	F	%	
I know the concept of sustainable tourism	3	3	13	13	14	14	49	49	21	21	372
I know what sustainable tourism activities are	3	3	12	12	22	22	50	50	13	13	358
I know the impact of scattered trash and damaged facilities	2	2	1	1	9	9	47	47	41	41	424
I am able to interpret the notion of sustainable tourism	4	4	3	3	33	33	40	40	20	20	369
I understand what sustainable tourism activities are	4	4	8	8	21	21	48	48	19	19	370
I can explain what activities are related to sustainable tourism	5	5	7	7	24	24	46	46	18	18	365
I can fully explain the negative impact of deviant behavior (damaging or littering) at tourist spots	1	1	1	1	1	11	54	54	33	33	417
I carry out sustainable tourism activities (protecting the environment, facilities, ecosystem) at tourist attractions	4	4	3	3	13	13	44	44	36	36	405

I can associate sustainable tourism activities with a positive impact on the environment in destinations	1	1	3	3	12	12	54	54	30	30	409
I feel that sustainable tourism activities are important	0	0	0	0	13	13	39	39	48	48	435
I feel that deviant acts such as littering, damaging facilities or endangering the marine ecosystem are extremely inappropriate	2	2	0	0	5	5	35	35	58	58	447
Total Score											4371

Source: Author's work, 2022

In the knowledge sub-variable, it can be seen that the question regarding I feel deviant actions such as littering, damaging facilities or endangering the marine ecosystem is very inappropriate, has the greatest value with a total score of 447. The question regarding whether I feel that sustainable tourism activities are important has value as the second largest score with a total of 435. From the two largest scores, it can be concluded that tourists feel that sustainable tourism activities need to be carried out, and the deviant behaviour carried out by tourists at Pangandaran Beach is inappropriate because it can harm the environment.

In the knowledge sub-variable, the questions about I know what sustainable tourism activities have the lowest score, with a total score of 358. The second lowest is a question about my ability to explain activities related to sustainable tourism, with a total score of 365. It can be concluded that even though tourists agree it is not good to take deviant actions and the importance of sustainable tourism activities, tourists still lack knowledge about what activities are related to sustainable tourism. It can be seen as a lack of knowledge of tourists in carrying out sustainable tourism activities, so it is necessary to improve and provide insight to tourists about sustainable activities tourism so that the environment is not polluted because if tourists know well and thoroughly, deviant tourist behaviour should be reduced, whereas judging from the phenomena that occur there is still much garbage scattered around Pangandaran Beach.

Table 3. Scoring Analysis (Sub Variable Attitude)

Indicator	1		2		3		4		5		Total Score
	F	%	F	%	F	%	F	%	F	%	
I saw trash scattered on Pangandaran Beach	1	1	13	13	19	19	49	49	18	18	370
I saw that the facilities at Pangandaran Beach were damaged	4	4	16	16	24	24	46	46	10	10	342
After I know the negative impact of deviant behaviour, I will no longer engage in deviant behaviour	1	1	1	1	7	7	49	49	42	42	430
I try to remind other tourists not to litter	3	3	5	5	24	24	50	50	18	18	375
I try to remind other travellers not to damage the destination facilities	3	3	6	6	24	24	51	51	16	16	371
I try to remind other travellers not to use vehicles that are not environmentally friendly	5	5	6	6	33	33	44	44	12	12	352

I do not damage the destination facilities even though other tourists did the same thing	2	2	1	1	8	8	44	44	45	45	429
I do not litter even though other tourists do the same	1	1	1	1	8	8	48	48	42	42	429
I do not use old vehicles that are not environmentally friendly, even though other tourists do the same	3	3	3	3	20	20	56	56	18	18	383
I do not litter	1	1	1	1	8	8	42	42	48	48	435
I do not damage the destination facility	2	2	0	0	8	8	41	41	49	49	435
I do not use vehicles that are not environmentally friendly	4	4	7	7	14	14	44	44	31	31	391
I invite other tourists to clean and dispose of trash in its place	4	4	5	5	34	34	38	38	19	19	363
I invite other tourists not to damage the facility	4	4	7	7	22	22	47	47	20	20	372
I invite other tourists to use environmentally friendly vehicles	5	5	10	10	30	30	39	39	16	16	351
Total Score										5828	

Source: Author's work, 2022

In the attitude sub-variable, it can be seen that the question that has the greatest value is I do not damage the destination facility, and I do not litter with a total score of 435 each. It shows that many research respondents do not do deviant behaviour, but this is the opposite. With the phenomenon that occurs, namely the amount of garbage scattered around, there could be several other factors that make these tourists feel they do not litter, or it can also be because of other tourists who litter. The question with the next largest total score is After I know the negative impact of deviant behaviour, I will no longer carry out deviant behaviour with a total score of 430; with statements like this, it is hoped that tourists will no longer damage the environment, but need help from all parties to set examples and explain what the negative impact of deviant behaviour is.

Questions that have a low score namely I invite other tourists to use environmentally friendly vehicles, with a total of 351; other than that, similar questions, such as inviting other tourists not to litter, not to damage facilities and trying to remind other tourists to do sustainable tourism have valued a score that is not high enough, this shows that tourists may be indifferent or indifferent when they see other tourists littering, whereas, help and support are needed from various parties including tourists who try to remind and invite other tourists to carry out sustainable tourism activities to preserve the environment so that tourists need to improve their attitude in inviting and admonishing if they see other tourists polluting the environment.

Table 4. Scoring Analysis (Sub Variable Action)

Indicator	1		2		3		4		5		Total Score
	F	%	F	%	F	%	F	%	F	%	
When I intend to do sustainable tourism, I need to see a guidebook or be told by someone else	2	2	14	14	23	23	46	46	15	15	358
I do sustainable tourism because other tourists do it too	4	4	22	22	32	32	34	34	8	8	320

I can immediately apply the concept of sustainable tourism to tourism activities.	1	1	6	6	18	18	64	64	11	11	378
I take care of the environment because I am used to it	1	1	0	0	11	11	58	58	30	30	416
I am interested in increasing sustainable tourism activities myself	0	0	3	3	11	11	51	51	35	35	418
Total Score										1890	

Source: Author's work, 2022

In the action sub-variable, it is known that the question with the largest total score is that tourists are interested in increasing sustainable tourism activities, with a score of 418, so it can be concluded that the enthusiasm of tourists in carrying out sustainable tourism activities and developing them has been high but still needs to be given further knowledge about sustainable tourism because in sub the tourist knowledge variable still lacks knowledge of sustainable tourism activities. After that, the second highest score is tourists protecting the environment because they are used to it. This question could be due to several factors, such as parental upbringing since childhood to preserve the environment or the habit of disposing of trash in its place. Furthermore, the question with the lowest score is tourists doing sustainable tourism because other tourists are doing it too, with a score of 320. It shows that most tourists are not moved when they see other tourists doing sustainable tourism activities.

Table 5. Total Score Summary

No	Sub Variable	Total Score	Mean
1	<i>Knowledge</i>	4371	397,36
2	<i>Attitude</i>	5828	388,53
3	<i>action</i>	1890	378

Sumber: Author's work, 2022

Table 5 shows that the knowledge sub-variable has the highest average score with a total of 397.36, indicating that tourists have the highest knowledge of sustainable tourism compared to attitudes and actions. Meanwhile, the action variable has the lowest total score with an average total score of 378, so it can be said to be quite low in realizing actions based on the knowledge and attitudes of tourists towards sustainable tourism. The results of Table 5 can be calculated or classified levels of tourist behaviour based on the continuum line as follows:

1) Knowledge

Maximum index value = highest score x number of items x number of respondents

$$5 \times 11 \times 100 = 5500$$

Minimum index value = lowest score x number of items x number of respondents

$$1 \times 11 \times 100 = 1100$$

Variable level = maximum index value - minimum index value

$$5500 - 1100 = 4400$$

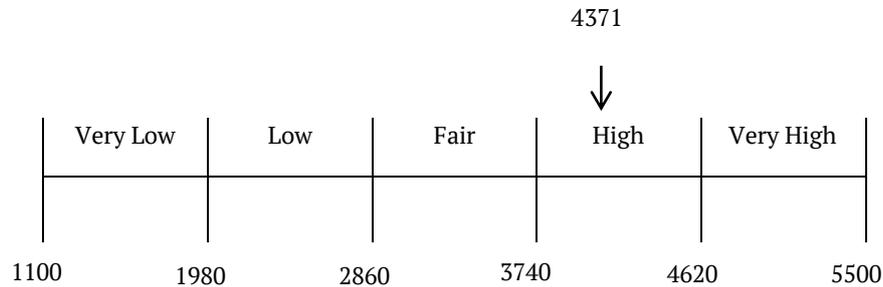
Interval distance = variable level: the number of interval classes

$$4400 : 5 = 880$$

Score Percentage = [(total score): maximum score] x 100%

$$4371 : 5500 \times 100\% = 79\%$$

From the calculation above, a total score of 79% is obtained, proving that knowledge tourists' behaviour in carrying out environmental aspects of sustainable tourism is included in the high category. It is illustrated by a continuum line as follows:



Picture 1. Sub Variable Knowledge on Continuum Line

2) Attitude

Maximum index value = highest score x number of items x number of respondents
 $5 \times 15 \times 100 = 7500$

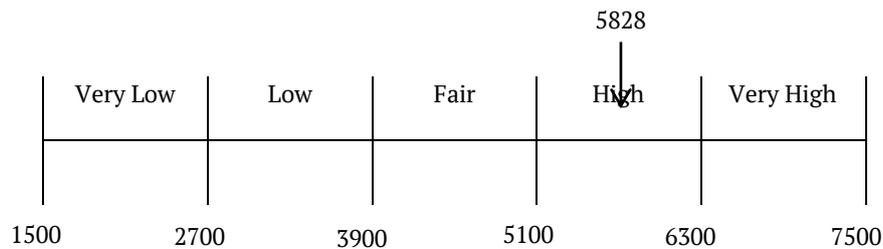
Minimum index value = lowest score x number of items x number of respondents
 $1 \times 15 \times 100 = 1500$

Variable level = maximum index value - minimum index value
 $7500 - 1500 = 6000$

Interval distance = variable level: the number of interval classes
 $6000 : 5 = 1200$

Score Percentage = [(total score): maximum score] x 100%
 $5828 : 7500 \times 100\% = 78\%$

From the calculation above, a total score of 78% is obtained, which proves that tourist behaviour in the realm of attitudes toward carrying out environmental aspects of sustainable tourism is included in the high category. It is illustrated by a continuum line as follows:



Picture 2. Sub Variable Attitude on Continuum Line

3) Action

Maximum index value = highest score x number of items x number of respondents
 $5 \times 5 \times 100 = 2500$

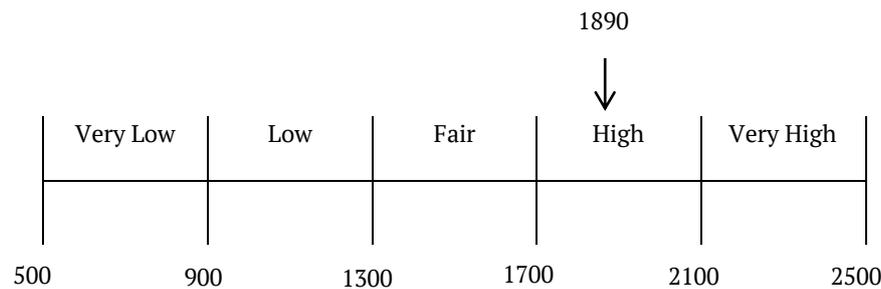
Minimum index value = lowest score x number of items x number of respondents
 $1 \times 5 \times 100 = 500$

Variable level = maximum index value - minimum index value
 $2500 - 500 = 2000$

Interval distance = variable level: the number of interval classes
 $2000 : 5 = 400$

Score Percentage = [(total score): maximum score] x 100%
 $1890 : 2500 \times 100\% = 76\%$

From the calculation above, a total score of 76% is obtained, which proves that tourist behaviour in the realm of action in carrying out environmental aspects of sustainable tourism is included in the high category. It is illustrated by a continuum line as follows:



Picture 3. Sub Variable Action on Continuum Line

CONCLUSION

All sub-variables are in the high category on the continuum line, but this is in contrast to the phenomenon that occurs at Pangandaran Beach, where many tourists still litter. However, tourists feel it is important to carry out sustainable tourism activities not to harm the environment at Pangandaran Beach. The sub-variable that has the highest average score is the knowledge sub-variable, so it can be interpreted that tourists' knowledge about sustainable tourism is higher than attitudes and actions, especially in the action sub-variable, which is the sub-variable with the lowest score, which could be caused by several factors such as education or age. Tourists also need to increase their attitude of warning and invite other tourists to participate in sustainable tourism activities so that these activities can be carried out optimally, besides that there is also a need for assistance from other parties such as tour guides, tour leaders and destination managers to tell how and what are sustainable tourism activities. So that tourists can understand as a whole and can carry out properly.

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