

# An Implication of Destination Attractiveness, Environmental Sensitivity, and Satisfaction with Interpretive Service on Place Attachment and Environmental Responsible Behavior

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# ABSTRACT

This study examines the effect of destination attractiveness, environmental sensitivity, and satisfaction with interpretive services on place attachment. This study also aims to identify the effect of place attachment on environmentally responsible behavior. This study was using a questionnaire as a data collection method. This study's total sample was 400 respondents. However, the number of questionnaires that can be processed as 398. The data were processed using PLS-SEM (Partial Least Square). The result was obtained in this study: destination attractiveness has a significant positive effect on place attachment; environmental sensitivity has a significant positive effect on place attachment; satisfaction with interpretive services has a significant positive effect on place attachment; place attachment has a significant positive effect on environmentally responsible behavior; destination attractiveness has a significant positive effect on environmentally responsible behavior; environmental sensitivity has a significant positive effect on

environmentally responsible behavior; satisfaction with interpretive services has a significant positive effect on environmentally responsible behavior. This research contributes to the literature on tourism marketing.

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# 1. Introduction

The development of the tourism sector in Indonesia is predicted to experience continuous growth before the Covid-19 pandemic. One of the cities in Indonesia that experience continuous growth is Bengkulu Province. Several factors influence the growth of Bengkulu's tourism sector, such as visitors' environmentally responsible behavior when visiting a particular destination.

There are still many foreign and domestic tourists who are not responsible for the environment, such as littering, destroying facilities, and so on. As a result of that irresponsible behavior, many tourist sites apply rules to guard against ethical violations. So, it is important to improve environmentally responsible behavior because responsible behavior and care for the environment will create a clean and beautiful environment (Scannell & Gifford, 2010; Blazeka et al., 2015).

An environmentally responsible attitude refers to individuals or groups' actions as a reflection of their concern for the surrounding environment. If tourists have the intention to demonstrate environmentally responsible behavior, they will effectively reduce damage to the environment. Tourists will more aware that environmental problems must be addressed and resolved immediately (Bamberg & Möser, 2007; Cheng et al., 2013; Scannell & Gifford, 2010). Several factors cause tourists to have environmentally responsible behavior. One of them is satisfaction with interpretive service.

Satisfaction with interpretive service increases tourist satisfaction and can provide insightful knowledge for tourists when visiting (S. N. Zhao & Timothy, 2017; Stegneiko et al., 2018). Satisfaction with interpretive service is commonly used in recreational areas such as parks and other tourist attractions that provide information and present knowledge of natural and historical resources (Ham & Weiler,

2007). Satisfaction with interpretive service is influenced by several factors, namely Destination Attractiveness, Environmental Sensitivity, and Place Attachment.

Place attachment is an important factor that causes an environmentally responsible attitude (Dolnicar & Leisch, 2008). Tourists who have a high attachment to place tend to have a high environmentally responsible attitude. Place attachment is someone's positive emotional attachment to a specific location (Scannell & Gifford, 2010). The attachment of place also connects a person with the environment and generates a sense of concern for the environment (Moore & Graefe, 1994). Researchers use place attachment to explore tourist behavior, thus knowing tourists' desires, emotions, and behavior (Hou et al., 2005). Tourists with a higher level of place attachment would show environmentally responsible behavior to protect the environment that causes the environment to become clean and does not damage the environment (Chiu et al., 2014).

Tourist attraction refers to tourists' perception of a tourist spot's attractiveness that provides satisfaction and benefits to meet their needs (Hu & Ritchie, 1993). Tourist attractiveness has a significant positive effect on determining tourists' choices when visiting a place (Hou et al., 2005). Tourists will be attracted to a tourist spot when the tour has high attractiveness so that it becomes a must-visit tourist destination. In addition to the tourist attraction, another factor that affects the place attachment and environmentally responsible behavior in a good manner is environmental sensitivity.

Environmental sensitivity is owned by someone sensitive to the environment (Williams & Vaske, 2003). Environmental sensitivity is the attitude of a person to be interested in learning about the environment, concern for the environment, and acting to protect and care for the environment based on one's experience of certain places. Environmental sensitivity is a variable that affects place attachments and attitudes to behave in an environmentally responsible manner. If tourists have a high sensitivity to the environment, they will show an environmentally responsible attitude (Chawla, 1998). Another factor that also influences place attachment and environmentally responsible behavior is satisfaction with interpretive service.

The relationship between tourist attractiveness and attachment to place has received interest among researchers. Tourist attraction had a positive and significant effect on place attachment (Hou et al., 2005). Findings from (Cheng et al., 2013) conducted in nature tourism in Penghu Taiwan also found the same results: tourist attraction has a positive and significant effect on place attachment. This study aims to confirm this proposition in the context of cultural and heritage destinations in Bengkulu Province. Moreover, (Cheng et al., 2013) also found that environmental sensitivity has a positive and significant effect on place attachment. Meanwhile, the results of a study conducted by (M. Zhao et al., 2018) in the context of tourist destinations in Yuyuantan Urban Park China found that satisfaction with interpretive service has a positive and significant effect on place attachment.

Tourist attractiveness, environmental sensitivity, and satisfaction with interpretive service positively and significantly affect environmentally responsible behavior (Cheng et al., 2013; Cheng & Wu, 2015). Finally, (M. Zhao et al., 2018) confirm that place attachment has a positive and significant effect on environmentally responsible behavior.

This study aims to examines the effect of destination attractiveness, environmental sensitivity, and satisfaction with interpretive services on place attachment. This study also aims to identify the effect of place attachment on environmentally responsible behavior.

#### 2. Methods

This research is a research using a quantitative approach. This research was conducted at Bengkulu City. The variables in this study include destination attractiveness, environmental sensitivity, satisfaction with interpretive service, place attachment, and environmental responsible behavior.

The sampling technique used in this study was the purposive sampling technique. The sample criteria used in this study are tourists who have visited Bengkulu City, tourists who are familiar with Bengkulu City destinations, tourists who have visited cultural and heritage destinations in Bengkulu City. The sample in this study was 398 respondents.

The data collection method used in this research is by distributing questionnaires online. Data were obtained by entering the questionnaire into Google Form, and then online questionnaires were distributed through social media groups, such as traveling groups on Facebook, WhatsApp, Instagram, and Twitter.

Measurement items of environmentally responsible behavior use items adopted from (Cheng et al., 2013). Place attachment using measurement items that were adopted from (Prayag et al., 2018). Tourist attraction and environmental sensitivity measurement items that were adopted by (Cheng et al., 2013). Satisfaction with interpretive service measurement items was adapted from (M. Zhao et al., 2018). These measurements have been tested for validity and reliability, which shows that each indicator is valid, and

each variable is declared reliable so that it can be used for analysis. Methods of data analysis in this study using Structural Equation Modelling using the PLS (Partial Least Square) version 2.8.9.

#### 3. Results and Discussions

Based on the principle, this study uses two endogenous variables which are influenced by other variables. The endogenous variable in this study is place attachment which is influenced by the variables of tourism attractiveness, environmental sensitivity, and satisfaction with interpretive service. The variables of environmentally responsible behavior can be influenced by variables of tourism attractiveness, environmental sensitivity, satisfaction with interpretive service, and place attachment.

Endogenous Variables	Exogenous Variables	R-Square
Place Attachment	Destination Attractiveness, environmental sensitivity, satisfaction with interpretive services	0,469
Environmental Responsible Behavior	Destination Attractiveness, environmental sensitivity, satisfaction with interpretive services	0,464
Environmental Responsible Behavior	Destination Attractiveness, Place attachment	0,516
Environmental Responsible Behavior	Environmental sensitivity, Place attachment	0,517
Environmental Responsible Behavior	Satisfaction with interpretive services, Place attachment	0,487

**Table 1.** Correlation between variables

Based on the table above, the R-Square for the place attachment variable is 0.469, which shows that 46.9% of the place attachment variable can be influenced by the tourist attraction, environmental sensitivity, and satisfaction with interpretive service. The remaining 53.1% is explained by other factors that are not described in the study. The R-square for the environmentally responsible attitude variable is 0.464, which shows that the environmentally responsible attitude variable is influenced by the variables of tourist attraction, environmental sensitivity, and satisfaction with interpretive service by 46.4%, the rest is explained by other factors other than the construct, namely amounted to 53.6%.

Furthermore, the r-square for each path is 0.516 for environmentally responsible behavior, which is influenced by tourist attraction and place attachment, meaning that 51.6% of the environmentally responsible attitude variable can be influenced by tourist attraction and place attachment. The second path, namely the r-square for environmentally responsible behavior, is 0.517, which means that 51.7% of the environmentally responsible behavior variable can be influenced by environmental sensitivity and place attachment. Then the third path, the r-square of environmentally responsible behavior, obtained 0.487. This result shows that 48.7% of the environmentally responsible attitude variable can be influenced by satisfaction with interpretive service and place attachment variables.

In the PLS technique, testing each hypothesized relationship is done by using the bootstrapping method. To assess the significance level in hypothesis testing, the total effect score shown from the t-statistic between exogenous variables to endogenous variables must be above 1.96 in the two-way hypothesis for testing at 5% alpha (Hair, Sarstedt, Pieper, & Ringle, 2012). The results of hypothesis testing can be seen in the following table:

Hypothesis	t-statistic	t-table	Conclusion of Hypothesis
H1 (DA => PA)	7,896	1,96	Accepted
H2 (ES => PA)	2,364	1,96	Accepted
H3 (SI => PA)	4,507	1,96	Accepted
H4 (PA => ESB)	6,676	1,96	Accepted
H5 (DA => ESB)	7,897	1,96	Accepted
H6 (ES $=$ ESB)	4,498	1,96	Accepted
H7 (SI => ESB)	2,797	1,96	Accepted

Table 2. Hypothesis Testing Results

#### The effect of destination attractiveness on place attachment

This research shows that tourist attraction affects the attachment to a place. The result of hypothesis testing is accepted. The effect of a tourist attraction on place attachment is a significant positive. This study's results support the findings of previous studies found by (Hou et al., 2005). His research found that tourist attraction had a positive and significant effect on place attachment carried out in the cultural tourism sector in Pei-Pu Taiwan. The results of this study also indicate that every indicator of tourist attraction can be fulfilled properly. This research is evidenced by the fact that respondents to tourist attractions give a high average rating. The results of this average value have a positive impact on place attachment. As long as cultural and heritage destinations in Bengkulu City are maintained from their authenticity or uniqueness, tourists' attachment to destinations will also take root strongly.

Practically, this study's results also make an important contribution, especially for the government and tourism marketing. Worthwhile contribution in this research, such as 1) increasing accommodation, transportation, and restaurant facilities around the tourism area, can be seen from the respondents' assessment of the facilities and facilities. The destination's infrastructure is still lacking, both in terms of transportation, lodging, and restaurants typical of Bengkulu City; 2) increasing various activities in the environment around the destination, it can be seen from the respondents' assessment that the environment around the destination is less attractive or unique. The environment is an important part of the tourism industry; the environment's quality must get major attention. Beauty, cleanliness, environmental friendliness are inseparable parts of creating a unique environment.

# The effect of environmental sensitivity on place attachment

This research shows that environmental sensitivity affects the attachment of places. The results of hypothesis testing indicate that this assumption is accepted. That is, it is evident that environmental sensitivity affects place attachment. The effect of environmental sensitivity on-site attachment is a significant positive. The results of this study support the findings of previous research found by (Cheng & Wu, 2015). Their research found that environmental sensitivity has a significant positive effect on place attachment. The results of this study also indicate that each measurement indicator provides excellent results. Someone sensitive to the environment will show environmental characteristics such as "refusing to litter in the environment," which can damage the environment (Hungerford & Volk, 1990). From the results of the research that has been done, it can be seen that the assessment of respondents to environmental sensitivity is very high. The result shows that the majority of respondents in this study have a very high character or nature of sensitivity to an environment in historical tourism.

Practically, this study's results provide several important contributions to the progress of culture and heritage destinations in Bengkulu City, increasing the natural and unique atmosphere in the environment around the destination, such as building selfie spots for visiting tourists. The implication can be seen from tourists' response who give very high ratings of the atmosphere of culture and heritage destinations in Bengkulu City. So, this will encourage tourists to care more about and respect the environment of dark tourism destinations.

#### The effect of satisfaction with interpretive service on place attachment

This research suggests that satisfaction with interpretive service affects place attachment. The results of hypothesis testing indicate that this assumption is accepted. That is, it is proven that satisfaction with interpretive service affects place attachment. The effect of satisfaction with interpretive service on place attachment is a significant positive. The results of this study support the findings of previous research found by (M. Zhao et al., 2018). The results of this study found that satisfaction with interpretive service has a significant positive effect on place attachment. The implication shows that the better the services available in tourism, both information and supporting facilities, the higher their attachment to the place. Tourists who have access to information about tourism during their visit to a place will change their attitude towards the environment to show their behavioral intention to care about the environment (Ballantyne et al., 2011).

Practically, this study's results also make an important contribution to the government and tourism marketing in developing dark tourism destinations in Bengkulu City, namely, improving information services in dark tourism destinations. This evident from respondents' assessment of the information services they receive, not yet fully providing good service, so that this rating is relatively low compared to others. The result explains that tourists have difficulty finding information services about tourist objects. Efforts that must be made include building a Tourism Information Centre to serve as a guide for tourists when visiting.

# The effect of place attachment on environmentally responsible behavior

This research shows that the attachment to place affects the attitude to behave in an environmentally responsible manner. The hypothesis testing results indicate that this assumption is accepted; that is, it is proven that the attachment of place affects environmentally responsible behavior. The effect of place attachment on environmentally responsible behavior is a significant positive. This study supports the findings of previous research found by (Halpenny, 2006), his findings in the natural and cultural tourism sector at Point Pelee National Park Canada, that the relationship between place attachment has a positive and significant effect on environmentally responsible behavior. The result shows that the higher one's attachment to a tourist spot will increase one's attitude to care and behave responsibly towards the environment. (Ramkissoon et al., 2012) in their study, a person who has a place attachment to a place serves to interpret their experiences, expectations, and behavior when someone is attached to a place to show loyal behavior.

Practically, this study's results also make an important contribution, especially for the government and tourism marketing in developing dark tourism destinations in Bengkulu City, namely, Clarifying historical information about dark tourism tourist destinations in Bengkulu City. Many respondents do not understand the history of dark destination tourism because dark tourism lacks information, such as information on its historical origins and its founders. The strategy taken includes installing information signposts. It would be even better if these instructions were also available in multi-language (at least in English, to make information easier for foreign tourists.

# The effect of destination attractiveness on environmentally responsible behavior

This research shows that tourist attraction affects the attitude to behave in an environmentally responsible manner. The results of hypothesis testing indicate that this assumption is accepted. That is, it is proven that tourist attractiveness affects environmentally responsible behavior. The influence of tourist attraction on environmentally responsible behavior has a significant positive effect. This study supports the findings of previous research found by (Dolnicar & Leisch, 2008) that tourist attraction has a significant positive effect on environmentally responsible behavior. The findings (Scannell & Gifford, 2010) also confirm from previous research that tourist attraction has a significant positive effect on environmentally responsible behavior. The findings increase one's attitude to be responsible and care for the environment. The tourist attraction is a reference for tourists when they want to visit a destination. When a tourist destination has a unique attraction, it can respond to tourists to visit and even trigger an attitude of tourists to care and be responsible for the environment (Hu & Ritchie, 1993).

Practically, this study's results also make an important contribution to the government and tourism marketing in developing dark tourism destinations in Bengkulu City, namely, improving waste management around tourism destinations. This management needs to be done to not disturb the natural beauty around the dark tourism tourist area. Strategies or efforts that must be carried out include installing signs to advise disposing of garbage and providing garbage dumps.

# The effect of environmental sensitivity on environmentally responsible behavior

This research shows that environmental sensitivity affects the attitude to behave in an environmentally responsible manner. The results of hypothesis testing indicate that this assumption is accepted. That is, it is evident that environmental sensitivity affects environmentally responsible behaviour. The influence of environmental sensitivity on environmentally responsible behaviour is a significant positive. This study's results support the findings of previous research found by (Barnett et al., 2006) that the relationship of environmental sensitivity has a significant positive effect on environmentally responsible behaviour. The latest findings from (Cheng & Wu, 2015) also state that environmental sensitivity to environmentally responsible behaviour has a significant positive effect. The result shows that the higher one's sensitivity to the tourism environment, the higher their attitude to be responsible and care for the environment. This study's results are in line with previous research, meaning that this study's results expand the empirical evidence that there is a relationship between environmental sensitivity towards environmentally responsible behaviour in various contexts of different objects, including dark tourism objects in Bengkulu City.

# The effect of satisfaction with interpretive service on environmentally responsible behavior

This research shows that satisfaction with interpretive service affects the attitude to behave in an environmentally responsible manner. The hypothesis testing results indicate that this assumption is accepted; that is, it is proven that satisfaction with interpretive service affects environmentally

responsible behaviour. The effect of satisfaction with interpretive service on environmentally responsible behaviour has a significant positive effect. This study's results support the findings of previous research found by (Tsang et al., 2011) conducted in the natural and historical tourism sector at Wetland Park Hong Kong, that satisfaction with interpretive service has a direct and significant effect on environmentally responsible behaviour. Recent research by (M. Zhao et al., 2018) also confirms that satisfaction with interpretive service has a significant positive effect on place attachment in China's Yuyuantan Urban Park tourism. The result shows that the better the level of service facilities, information, and accommodation available in a tourist destination, it will increase someone's responsibility and care for the environment. It can be seen that the results of this study are in line with previous research. This study expands the empirical evidence that there is a relationship between satisfaction with interpretive service and environmentally responsible behaviour proven in various research objects, including dark tourism in tourism. Bengkulu City. This study's implication can support Indonesia's priority program, namely "Visit Wonderful Indonesia 2020" and the Bengkulu Province priority program, "Visit Wonderful Bengkulu 2020".

# 4. Conclusion

This study found that tourist attraction, environmental sensitivity, satisfaction with interpretive service affects place attachment and environmentally responsible behaviour positively and significantly on dark tourism tourist destinations in Bengkulu City. Some recommendations that can be given include: 1) Improving and building accommodation facilities and supporting facilities and infrastructure. 2) Increase various activities in the environment around the destination, such as the Bencoolen International Marine Festival. 3) Increase the natural and unique atmosphere in the environment around the destination, such as building selfie spots for visiting tourists. 4) Improve information services in dark tourism destinations Efforts that must be made include building a Tourism Information Center. 5) Clarifying historical information about dark tourism tourist destinations in Bengkulu City, installing information signs. 6) Improve waste management around tourism destinations.

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