

The Role of Place Attachment as a Mediator in the Effect of Destination Attractiveness on Environmentally Responsible Behavior in National Tourism Parks

*Syafuruddin Chan, Sorayanti Utami and Cut Aprilia

Department of Management, Faculty of Economics and Business, Syiah Kuala University, Banda Aceh 23111, Indonesia

*Corresponding author: syafuruddin.chan@unsyiah.ac.id

Abstract

The purpose of this study is to test both direct and indirect hypotheses related to the determinants of environmentally responsible behavior and place attachment as a mediating variable in the ecotourism industry. Apart from local communities who must support eco-tourism activities in order to create sustainable ecotourism development, tourists must also give appreciation for environmental conservation activities in natural tourist destinations through various pro-environmental behaviors, collectively known as environmentally responsible behavior (ERB). 180 tourists visiting Gunung Leuser National Park (GLNP) in Sumatera, Indonesia were surveyed using convenience sampling technique. Structural Equation Modelling is used to determine the relationship between variables, encompassing analyses of direct and mediating effects. Of the three direct influence hypotheses, all of them are proven to have a significant effect. Meanwhile, the indirect effect of destination attractiveness on ERB through place attachments is proven to be insignificant. These findings suggest that the impact of place attachment to ERB is bigger than destination attractiveness, so ERB is better to be improved through place attachment than destination attractiveness.

Keywords: Place Attachment, Destination Attractiveness, Environmentally Responsible Behavior (ERB), Eco-Tourism, Gunung Leuser National Park

Introduction

Eco-tourism is one form of the tourism industries that is growing rapidly as of late. The World Tourism Organization (WTO) states that the value of ecotourism reaches USD20 billion per year, and accounts for 20% of global international travel (WTO, 1998). Awareness of the importance of environmental preservation through the establishment of a protected area to preserve the natural carrying capacity as well as conservation activities carried out by many parties, including initiatives undertaken by Non-Government Organizations (NGOs).

As a component of the travel industry whose commitment is getting greater in adding to the State's Gross National Product (GNP), ecotourism is getting increasingly more consideration from numerous gatherings. Ecotourism gives a financial support to preservation exercises due to the huge potential to produce direct monetary advantages to the public economy and nearby networks (Wunder,

2000). Nonetheless, ecotourism advancement stays focused in secured regions and has basically profited neighborhood governments and the private segment, leaving restricted advantages for nearby networks. This can make debates between the recreation center and the network, and has driven governments to look past customary protection techniques to attempt preservation approaches in which networks are additionally associated with dynamic and admittance to protection benefits (Ormsby & Mannle, 2006).

The ideal outcome of efforts to involve local communities in the development of this nature-based tourism industry is the forming of sustainable tourism development efforts, because local people also benefit from the growth of the tourism sector (Tsaur, Lin & Lin, 2006). The primary reason as to why ecotourism efforts are developed is that if business opportunities in the ecotourism sector are exploited to the fullest extent, then the benefits that can be reaped extend beyond only the preservation of the natural environment. It is expected that the local community will also benefit economically, and that the government will receive support from local communities to realize nature conservation goals in the Gunung Leuser National Park (GLNP), Sumatera, Indonesia (Vincent & Thimpson, 2002). Nonetheless, the possibility that ecotourism can make openings that will go about as motivators for protection is disputable (Adams & Infield, 2003). This restriction of ecotourism is related with an absence of network support, responsibility and restricted open doors which can have a critical effect on network advancement and preservation exercises (Ahebwa, van der Duim & Sandbrook, 2012). The limited ability of ecotourism to provide benefits to the community as mentioned by many parties can hinder the achievement of conservation goals due to the weak support of local communities for these conservation activities (Kiss, 2004). In the Gunung Leuser national park, for example, of the studies conducted on the park's Bahorok, Langkahan, and Ketambe areas, there has yet to be one that confirms the existence of significant benefits for the community as a result of eco-tourism development.

In addition, the behavior of incoming tourists can also be a threat to conservation activities should they fail to engage in appropriate conduct with the flora and fauna found in the conservation location, such that there is a tendency for them to cause damages to the Leuser forest area (Kiss, 2004). The goal of developing ecotourism in the area is for there to be financial benefits from both local and foreign tourists, which could be used to finance the provision and management of national parks. Thus, ecotourism attaches an economic value to conservation activities and protection of natural areas.

The increased attendance of tourists who visit the protected areas are to a certain extent expected to present potential threats to the natural habitat as well as the culture of the local community (Gstaettner, Rodger & Lee, 2017). Therefore, it is necessary to attract tourists who conduct themselves with environmentally responsible behavior (ERB), which is an important indicator for sustainable tourism (Hsueh, 2018). Because of this, finding ways to increase the attendance rate of these tourists becomes a very important concern to maximize the sustainability of nature-based tourism (Cheng, Wu & Huang, 2013). Substantial evidence shows that an environment with a unique ecology makes natural tourist destinations more attractive and exotic. Studies conducted in the past (Khadaroo & Seetana, 2007; Scheyvens & Momsen, 2008; Reitsamer, Sperdin & Sauer, 2016) defines destination attractiveness as said destination's ability to meet the expectation of tourists who hope to gain interesting experiences from tourist attractions. The aforementioned studies also noted that if tourists are attracted by the features or special attributes that exist in a destination, (Hsueh, 2018) their place attachment will increase. It was also found that there is a correlation between destination attractiveness and ERB (Brown, Raymond & Corcoran, 2015; Scannell & Gifford, 2016). Literature on

tourism shows that destination attractiveness is important in building place attachment among tourists. Furthermore, destination identity and destination dependence are an important indication of place attachment and the ERB is an important indication of sustainable tourism development.

Previous research states that the determinants of ERB are tourist satisfaction and tourist knowledge of environmentally friendly behavior, as was done on Jibei Island, Taiwan (Hsueh, 2018). Moreover, the ERB study that has been conducted in the Penghu islands, Taiwan places the emotions and feelings of tourists as variables that mediate the effect of destination attraction on ERB (Cheng, Wu & Huang, 2013). Other similar studies on ERB also use goal attractiveness or place attachment as the determinant variable of ERB (Lee, 2011; Cheng & Wu, 2014; Chiu, Lee & Chen, 2014).

Unlike previous studies, this study aims to assess the relationship between destination attractiveness and ERB through place attachments, which as far as the author's knowledge has not been carried out by previous researchers on national park destination objects such as GLNP.

It is hoped that the findings of this study will explain how destination attractiveness and destination attachments influence the behavior of tourists who are responsible for environmental sustainability (ERB). The findings of this study are expected to provide a reference for the tourism industry to increase tourist interest and attachment to an environmentally-based tourist destination as well as additional information related to the country of origin, where the tourists come from. Decision makers, especially government tourism agencies, can refer to the findings to formulate policies. In addition, tourism providers can improve their services by using the findings as a guide to attract more tourists to come and extend their stay in Indonesia.

The hypotheses to be proven on this study are:

1. There is an effect of destination attractiveness on place attachments
2. There is an effect of place attachment on environmentally responsible behavior
3. There is an effect of destination attractiveness on environmentally responsible behavior
4. There is an indirect effect of destination attractiveness on environmentally responsible behavior through place attachment

Research Method

To test the hypothesis, field research was carried out by distributing questionnaires, which were conducted online and offline. The population in this study were tourists who came to the tourist sites of Gunung Leuser National Park, which are located in two provinces, Aceh and North Sumatra. The number of the population is unknown. While the sample used in this study was 10 (ten) times the number of indicators (Hair, Sarstedt, Ringle & Mena, 2012) namely 180 respondents. The sample selection was carried out using convenience sampling technique in areas visited by many tourists, namely Ketambe, Langkahan and Bahorok, with proportions of 30%, 35% and 35% proportional to the number of visitors per year.

To ensure the validity, all the measurement items were taken from previous studies; however, minor modifications to the statements were made to make them adequate for the present study. Destination attractiveness and Environmental Responsible Behavior (ERB) were measured using six items using adapted from Su & Swanson (2017), while place attachment was operationalized using two dimension and 8 indicators adapted from Lee (2011).

A self-administered survey was used to collect the data. A convenience sample was drawn for the survey. Sampling was conducted by distributing questionnaires to guests at different times of the day, over an 8-week period. In order to increase participation, the purpose of our research was explained to the guests, and questionnaires were only given to those who showed willingness to participate in the survey.

Data analysis

SPSS version 21.0 was applied to process collected data to get the clear insights of demographic profile. This study also asses reliability using Cronbach alpha and validity by measuring scales using confirmatory factor analysis (CFA), followed by application of structural equation modelling (SEM) to verify the path relationships of destination attractiveness, place attachment and environmental responsible behavior. The software used for CFA and SEM was AMOS. Before conducting testing the hypothesis testing, carried out the model fit test (Goodness of Fit Indices), to ascertain the model built is fit with the data.

Results and Discussion

Out of these 180 respondents, 62% were male and 38% were female. Forty percent of the respondents were below 30 years of age, 19% were between the ages of 31 and 35 years, 29% were between of ages of 36 and 40 years and 12% were older than 40 years. Among those respondents 69 % were locals, and 31% were foreigners.

Based on the reliability test, it can be seen that the alpha for the variables, Destination attractiveness is 89.6%, Destination Identity is 92.0%, then Destination dependence is 81.7%, and Environment Responsible behavior is 81.4%. Thus the measurement of the reliability of the research variables shows that they meet the requirements of Cronbach Alpha where the CA coefficient value are greater than 60 percent.

Table 1. The result of measurement scores

Ind.	<-	Variable	Estimate (Before)	Estimate (After)
Da1	<-	DestAtr	.573	.573
Da2	<-	DestAtr	.831	.831
Da3	<-	DestAtr	.753	.753
Da4	<-	DestAtr	.735	.735
Da5	<-	DestAtr	.842	.842
Da6	<-	DestAtr	.862	.862
Erb1	<-	ERB	.818	.818
Erb2	<-	ERB	.877	.881
Erb3	<-	ERB	.847	.847
Erb4	<-	ERB	.820	.820
Erb5	<-	ERB	.206	-
Erb6	<-	ERB	.231	-
Di3	<-	DesIden	.820	.820
Di4	<-	DesIden	.742	.741
Dd3	<-	DestDep	.850	.864
Dd2	<-	DestDep	.779	.773
Di2	<-	DesIden	.947	.947
Dd4	<-	DestDep	.856	.860
Di1	<-	DesIden	.922	.922
Dd1	<-	DestDep	.445	-
DesIden	<-	PlaceAttch	.531	.560
DestDep	<-	PlaceAttch	.859	.862

Note: DestAtr: Destination Attractiveness; ERB: Environmental Responsible Behavior; DesIden: Destination Identity; DestDEp: Destination Dependence; PlaceAttch: Place Attachment

Confirmatory factor analysis is a measurement stage of the dimensions that form the latent variables in the research model. The latent variables or constructs used in this research model consist of 3 exogenous variables and 2 endogenous variables consisting of the mediating and dependent variables. The aim of confirmatory factor analysis is to test the unidimensionality of the forming dimensions of each latent variable. The measurement items will be eliminated if the score of the loading factor is less than 0.50. From the table above, it can be seen that there are 3 indicators that do not meet the requirements so that the indicators of Erb5, Erb6 and Dd1 must be eliminated.

Evaluation of Goodness of Fit Criteria

The goodness of fit (GOF) model can be tested using several criteria, such as CMIN/DF, RMSEA, GFI and IFI.

Table 2. Goodness of Fit Indices

GOFI	Cut Off	Before	After
CMIN / DF	<2	2.62	1,564
RMSEA	<0.08	0.065	0.038
GFI	> .90	0.913	0.951
IFI	> .91	0.958	0.986

Since the CMIN / DF value is above the required (> 2), it is necessary to modify the model using modification indices. To make the model fit, it is necessary to add correlation line between items that have the highest MI value, namely in Da1 -> Da2, Da5-> Da6 and D13-> Di4. As a result, the CMIN / DF value fell from 2,620 to 1,564, so that it met the fit requirements. Likewise, RMSEA, GFI, IFI and TLI as well. Because the criteria for all GOFI criteria in measuring the model fit have been passed, it can be continued to the Structural Model for hypothesis testing.

Hypothesis testing is done through structural model testing. Analysis of the results of data processing at the full model SEM stage is shown in figure 1. The results of hypothesis testing for the direct effect, namely the effect of Destination Attractiveness on Place Attachments, the effect of Place Attachment on Environmental Responsible Behavior and the effect of Destination Attractiveness on Environmental Responsible Behavior are presented in the table shown in Figure 1 and then the results can be seen in the table 3. Testing of the indirect effect hypothesis, the effect of Destination Attractiveness on ERB through Place Attachments, using bootstrapping and the results is also can be seen on table 3.

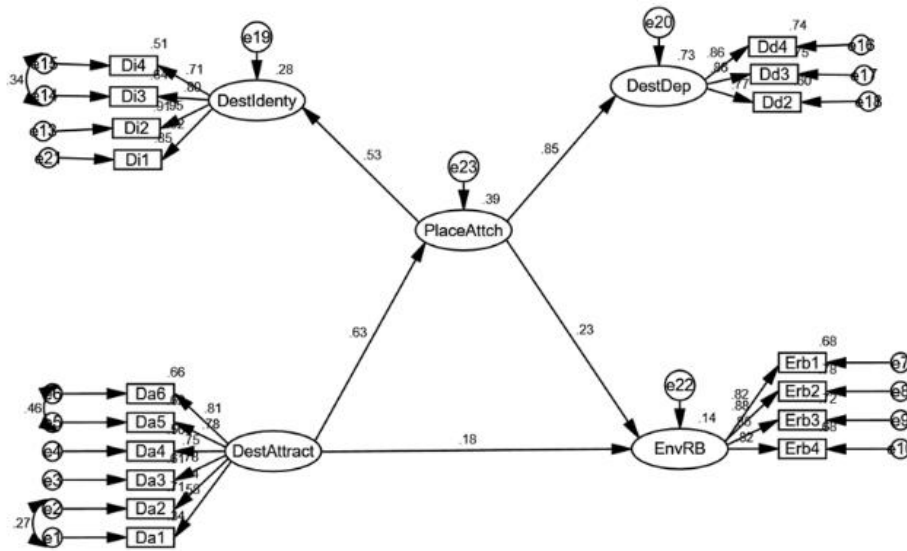


Figure 1. Structural model of hypothesis testing

Table 3. The result of hypothesis testing

No.	Hypothesis	P-value	Remark
1	Effect of Destination Attractiveness on Place Attachments	0.000	Accepted
2	Place Attachment to Environmental Responsible Behavior	0.000	Accepted
3	Destination Attractiveness against Environmental Responsible Behavior	0.080	Accepted
4	Destination Attractiveness on Environmental Responsible Behavior through a place attachment	0.233	Rejected

In principle, the model is built based on literature review and preliminary research. Based on the analysis of these literatures, a research model was developed, which then became a reference in defining the phenomenon and the objectives of the study. After going through a series of tests, it turns out that all the direct hypotheses tested show significant effects, thereby accepting H_a and rejecting H_o . There were three direct hypotheses tested, in particular the impact of Destination Attractiveness on Place Attachment, the impact of Place Attachment on Environmentally Responsible Behavior and the impact of Destination Attractiveness on Environmentally Responsible Behavior. All of these are found to have a p-value < 0.05 and a CR value > 1.960. As such, statistically we can confirm the existence of a positive and significant influence on the three tested hypotheses. With the growing tourist’s awareness to behave environmentally friendly in tourist attractions, it has

been stated in several studies including in environmental behavior study, that place attachment can be seen as a multifaceted concept that characterizes the bonding between individuals and their important places, in this case GLNP.

There has been prior research on the significance of the effect of Destination Attractiveness on Place Attachments conducted by Jiang, Ramkissoon, Mavondo & Feng (2017) and Cheng, Wu & Huang (2013). Both of the studies found that there is a significant effect on these two variables. The effect of Place Attachment to Environmental Responsible Behavior has also been investigated by Lee (2011); Cheng & Wu (2014) and Cheng, Wu & Huang (2013). The results are also consistent with the findings of this study. Likewise, the proof of the third hypothesis, namely the effect of Destination Attractiveness on Environmentally Responsible Behavior, has also been researched by Chiu, Lee & Chen (2014) and Cheng, Wu & Huang (2013). These studies have also found the results to be positive and significant. Thus, we can conclude that this study confirms several previous findings that contends with the environmentally friendly behavior of tourists in environmental destinations such as Gunung Leuser National Park.

Thus, the managers of ecotourism in destinations such as Gunung Leuser National Park are now equipped with valuable information that can be used in developing marketing plans designed to increase rates of compliance with the principles of ecotourism among incoming tourists. Another benefit that is no less important is that in setting up a marketing communication program, managers can specifically target tourists who have an environmentally conscious profile. Due to their predilection for appreciation of ecotourism, it is expected that the response rate from this segment will be much higher than that of multi-segment tourists. The findings in this study can be used as the basis for decision-making by managers of Gunung Leuser National Park, such that it becomes an increasingly popular tourist destination because all stakeholders—the local community, managers, and tourists—are aware of the importance of environmentally conscious tourist behavior.

Conclusion

Of the three direct influence hypotheses, all of them are proven to have a significant effect. Meanwhile, the indirect effect of destination attractiveness on ERB through place attachments is proven to be insignificant. These findings suggest that the impact of place attachment to ERB is bigger than destination attractiveness, so ERB is better to be improved through place attachment than destination attractiveness. Managers of ecotourism sites such as the Gunung Leuser National Park will now be equipped with valuable information that can be used in developing marketing plans designed to increase rates of compliance with the principles of ecotourism among incoming tourists. Furthermore, in setting up a marketing communication program, managers can specifically target tourists who have an environmentally conscious profile. Due to their predilection for appreciation of ecotourism, it is expected that the response rate from this segment will be much higher than that of multi-segment tourists.

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