# Guest Pro-Environmental Behavior of Save Energy in The Four Star Hotel Padang

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**Abstract**

The application of saving energy consumption must be given more attention as a form of concern for the environment. Currently, energy-saving behavior is being encouraged by business people, one of which is in the hotel industry. Guest behavior is very important in driving savings on hotel energy consumption, operational costs, and environmental issues. Promoting energy-saving behavior to guests is the right strategy to support and participate in energy-saving in the hospitality industry. This type of research is descriptive quantitative. The population in this study was 4,100 people and after being calculated by the Slovin formula, 98 samples were obtained. Research data was collected by questionnaire and processed using the PLS-SEM method. The purpose of this study was to determine the behavior of hotel guests in saving energy and to test three variables that influence pro-environmental behavior, namely habited culture, normative influence, and affective influence. The results obtained indicate that habitual culture has a significant positive effect on pro-environmental behavior. while normative influence and affective influence did not have a significant effect on pro-environmental behavior.

***Keywords:*** *Save Energy, Habited Culture, Normatif Influence, Affective Influence, Pro-Environmental Behavior.*

## INTRODUCTION

The tourism and hospitality industry is an industry that makes a significant contribution to the local and national economy. Hotels based on the Decree of the Minister of Tourism and Post and Telecommunication Number KM 34/HK103/MPPT-87 are a type of accommodation that

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uses part or all of the building to provide lodging, food and drink services, and other services for the public, which are managed commercially and meet the conditions set out. in government decisions. According to the Central Statistics Agency, 2020 accommodation businesses are businesses that provide short-term accommodation, especially on a daily or weekly basis for visitors and other travelers. This business of providing accommodation can be in the form of providing accommodation facilities only or accommodation facilities accompanied by food and beverage facilities, but unfortunately, the rapid development of the tourism and hospitality industry can pose a serious threat to the environment (Bohdanowicz et al., 2001; Gossling,2000). The short-term profit orientation of industry players can lead to over-exploitation of the environment which in the end can be detrimental. For this reason, integrated efforts are needed to reduce the impact of environmental damage caused by the development of this tourism industry. Considering that the tourism industry (in this case hospitality) is an industry that consumes energy very intensively (Kelly & Williams, 2007). So efforts to save energy will be needed (Dalem et al, 2010).

Furthermore, if we review Law Number 10 of 2009 concerning Tourism as revised by Law Number 11 of 2020, it mandates that every tourism entrepreneur is obliged to maintain a healthy, clean, and beautiful environment and is obliged to preserve the environment and culture. Bohdanowicz and Martinac 2007 found that 75% of environmental pollution caused by the hospitality industry comes from excessive consumption of energy, water, and materials when running a business. Wastewater, smoke, and materials discharged during operations will have a negative impact on our environment. (Chen and Chen 2012). If hotels are currently still running conventional businesses and putting aside concern for the environment, of course, environmental degradation will be increasingly difficult to overcome with increased inefficiency in the utilization of water resources and electrical energy. Tourism observer I Gede Ardika - Nusa Dua (Antara Bali) said that hotels as a part of tourism business activities certainly have an obligation to implement environmentally friendly hotel management. The concept of environmental protection and energy saving can drive green management into the construction of hotel facilities and if the hotel industry can implement green management ideas, it can not only benefit environmental protection and ecology but also reduce hotel operating costs.

Several factors can influence guests to save energy in hotels, namely habitual culture, normative influence, and affective influence. Habited culture, namely influence caused by habits or behaviors that have been implemented for a long time by someone so that it does not need full awareness to do so, then there is normative influence, namely influence caused by social pressure to do something so that we are accepted and liked by others, then there is Affective influence is the influence caused by someone's feelings or emotions to do something. From the three factors above, it is very possible for someone to save energy.

Besides that, the researchers found from the results of the questionnaire that the respondents agreed to energy-saving behavior at the hotel as well as indicated by the activities of the respondents to participate in saving energy, such as turning off the lights in the morning and afternoon, turning off the air conditioner when leaving the room, using enough water and so on. other. Besides that, respondents also really understand the importance of implementing energy saving and its impact on the environment. In this study, it will be examined whether the awareness and participation of the people in Indonesia towards saving energy is influenced by several factors that have been described including habited culture, normative influence, and affective influence.

**LITERATURE REVIEW**

A. Pro-environmental behavior

There are several terms used by experts to describe behavior that protects the environment, among other things environmental care behavior, responsible behavior towards the environment, and pro-environmental behavior or pro-environmental behavior. According to Steg and Vlek (2018), pro-environmental behavior is behavior that is detrimental to the environment as little as possible but provides great benefits for the environment. Valentine in Rina et al argued that pro-environmental behavior is a deliberate act of giving benefit to others, the desire to sacrifice oneself for the sake of the environment. Pro-environmental behavior will be strong when individuals have knowledge in the environmental field and show it to others, making it easier for people to act in accordance with the goals to be set. Whereas according to (Hendra in Rina et al., 2018) said that pro-environmental Behavior is an action that is useful to minimize environmental damage or improve environmental conditions.

B. Habited culture

Is a routine of behavior that is repeated regularly and tends to occur unconsciously. From a psychologist's point of view, habit is understood as a more or less fixed way of thinking, wanting, or feeling acquired through the repetition of previous mental experiences (Andrews, 1903). Habits are the result of automatic cognitive processes, developed through extensive repetition, so well learned that they do not require conscious effort (Aarts et al., 1997). In the last 25 years, much progress has been made in explaining and predicting the initiation of human behavior as discussed in the attitude or behavior model (Aarts et al., 1997). The introduction to the book A History of Habit from Aristotle to Bourdieu emphasizes that habit is oriented and distributed more internally because it can be detected not only in the human mind, but also in the behavior of non-human animals, population dynamics, plant growth patterns, and systemic tendencies. This explanation means that the study of habit has broad aspects and attracts attention from various fields of thought. (Sparrow, 2018), (page 9).

C. Normative influence

It is the influence of others that triggers us to conform to be liked and accepted by them. Individuals conform because they do not want to be ostracized. After all, they are different from the people around them. He acts as expected by his group to avoid rejection and negative views or not to be taken lightly by his group, even though he disagrees or disagrees with them. Aronson, Wilson, and Akert (2019). Several factors influence someone to carry out normative social influence, namely group size, group cohesiveness, group significance, and group culture (Aronson, Wilson, and Akert, 2019), (page 20).

D. Affective influence

Which means emotion or feeling, feeling emotion is a phase of neurobiological activity and the main psychological/motivational aspect of emotion, this is the main motivational system for human behavior. affective dimension has always been the main trigger of the attitude concept. Mood states can have a significant influence on self and others and attitudes between groups. Damasio (2020) argues that brain responses are emotions or bodily expressions of emotions, and emotional feelings

are a consequence of neurobiological (body) expressions. Emotions are fundamental both to origins and to conscious thought" (p. 218, cf. Izard 1977, ch. 6). Emotional factors and a person's other affective abilities, such as moods, feelings, and personality influence every aspect of interaction and human behavior in their lives (Forlizzi & Battarbee, 2018). Furthermore, Damasio (2020) suggests that behavior is driven by a person's feelings or emotions, referring to personal feelings for carrying out certain behaviors (Damasio 2020), (page 15).

## RESEARCH METHODS

This research belongs to the descriptive method through a quantitative approach. According to Sugiyono (2017), the quantitative descriptive research method aims to describe a phenomenon, event, symptoms, and incidents that occur factually, systematically, and accurately. Then the sampling technique used in this study was non-probability sampling with a purposive sampling type. Then 4,100 people who had stayed at a four-star hotel in Padang City became the population in this study and after calculating using the Slovin formula found a sample of 98 people. The research instrument used was a questionnaire with a Likert scale, namely 1 to 5, where the number 1 indicates a response that strongly disagrees and 5 indicates a response that strongly agrees.

Slovin

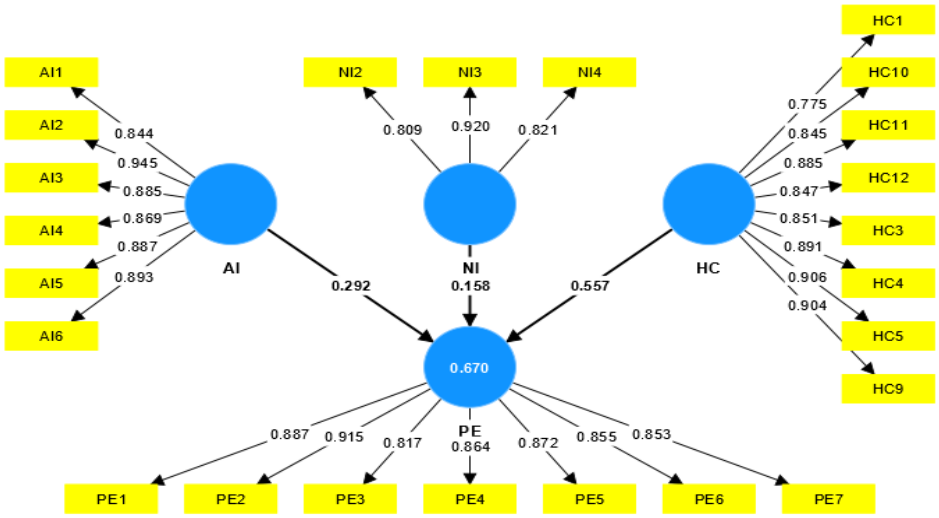
$$n = \frac{N}{1 + Nxe^2}$$

## RESULTS AND DISCUSSION

### 1. Measurement models

This study uses Structural Equation Models (SEM) to test the dimensions of the hypothesis and see the effect between the independent variables and the dependent variable (Cooper & Schindler, 2008). In this study, the SEM method helped examine the correlation between the variables habited culture, normative influence, affective influence, and three pro-environmental behavior variables. This SEM method allows multiple measurements of how much dependence there is between several variables and takes into account and measures the influence in the analysis process (Cooper & Schindler, 2008). The results are reported in Figure 1 and Table 1 along with outer loading, indicator reliability, composite reliability, AVE score, and Cronbach's alpha value.

Picture 1. Test Result Discriminant Validity




Source: Output PLS-SEM

Table 1. Reflective Measurement Model

| Variable | Indicators | Outer Loadings | Cronbach's Alpha | Composite Reliability | AVE |
|---|---|---|---|---|---|
| Habited Culture | HC1 | 0,775 | 0, 951 | 0, 951 | 0, 746 |
| | HC10 | 0,845 | | | |
| | HC11 | 0,885 | | | |
| | HC12 | 0,847 | | | |
| | HC3 | 0,851 | | | |
| | HC4 | 0,891 | | | |
| | HC5 | 0,906 | | | |
| | HC9 | 0,904 | | | |
| Normative Influence | NI2 | 0,809 | 0, 812 | 0, 869 | 0, 725 |
| | NI3 | 0,920 | | | |
| | NI4 | 0,821 | | | |
| Affective Influence | AI1 | 0,844 | 0, 946 | 0, 949 | 0, 788 |
| | AI2 | 0,945 | | | |
| | AI3 | 0,885 | | | |
| | AI4 | 0,869 | | | |
| | AI5 | 0,887 | | | |
| | AI6 | 0,893 | | | |
| Pro-Environmental Behavior | PE1 | 0,887 | 0, 945 | 0, 949 | 0, 715 |
| | PE2 | 0,915 | | | |
| | PE3 | 0,817 | | | |
| | PE4 | 0,864 | | | |
| | PE5 | 0,872 | | | |

| | | | | | |
|---|---|---|---|---|---|
| | PE6<br>PE7 | 0,855<br>0,853 | | | |

Source: Output PLS-SEM

The purpose of using a measurement model assessment is to make it easier to indirectly measure the ideas conveyed by Hair et al. (2002) regarding latent or unobservable concepts that cause changes in observable indicators. The reliability test by Smart pls has two methods, namely Cronbach's alpha and composite reliability. Cronbach's alpha measures the actual limit of the reliability value of a construct, while composite reliability measures the original value of the reliability of a construct. Composite reliability is considered better in estimating the internal consistency of a construct. The rule of thumb used for the Composite Reliability value is greater than 0.7 and the Cronbach's alpha value is greater than 0.7 (Ghozali, 2016). Then for construct validity, you can get an Average Variance Extracted (AVE) value with a value of > 0.5. From the data that the researchers tested using smart pls, the Composite reliability habited culture value was 0.951 and the Cronbach alpha value was 0.951, and the AVE value was 0.746. Composite reliability normative influence was 0.869 and Cronbach's alpha was 0.812. AVE value of 0.725. Composite reliability affective influence of 0.949 and Cronbach alpha of 0.946 obtained an AVE value of 0.788. Composite reliability pro-environmental behavior of 0.949 and Cronbach's alpha of 0.945 obtained an AVE value of 0.751. Based on the findings of the data above, it is clear that all four variables are significant. That way, the measurement values for the dependent and independent variables are very good because the values obtained are more than 0.70.

**2. Heterotrait – monotrait ratio (HTMT)**

Table 2. Heterotrait-Monotrait Ratio (HTMT)

| | AI | HC | NI | PE |
|---|---|---|---|---|
| AI | | | | |
| HC | 0, 769 | | | |
| NI | 0, 210 | 0, 146 | | |
| PE | 0, 745 | 0, 802 | 0, 241 | |

Source: Output PLS-SEM

HTMT (Heterotrait-Monotrait ratio) is a method of testing convergent and discriminant consistency in Partial Least Square (PLS)-based path analysis to test the extent to which a construct is different from other constructs. The HTMT test is carried out by calculating

the ratio between the correlations between constructs (hetero-traits) and the correlations within the same construct which are estimated from the PLS model. If the HTMT value between the two constructs is <0.90 then the construct is considered to have good convergent consistency and can be distinguished from other constructs. In the HTMT table above there is no value > 0.90, this indicates that there is no discriminant validity problem.

**3. R – Square**

Table 3. R – Square

| | R - square | R – square adjusted |
|---|---|---|
| PE | 0, 670 | 0, 659 |

Source: Output PLS-SEM

R – Square is a value that shows how much the independent (exogenous) variable affects the dependent (endogenous) variable. The range of R – square numbers is between 0 to 1 which shows the magnitude of the combination of independent variables affecting the value of the dependent variable. The use of this R-square value is to assess how much influence certain independent latent variables have on the dependent latent variable. Hair et al stated that the R-square value was grouped into three, namely the strong category (0.75), the moderate category (0.50), and the weak category (0.25) (Hair et al., 2011). From Table 3 above, it can be said that R – square is in the moderate category, so it can be concluded that variable y (pro-environmental behavior) is influenced by 670% by variable X1 (habited culture), variable X2 (normative influence, and variable X3 (affective influence).

**4. Hypothesis test results**

Table 4. Hypothesis Testing

| | Original sample | Sample mean | Standard deviation (STDEV) | T statistic (\|O/STDEV\|) | P values | Information |
|---|---|---|---|---|---|---|
| HC > PE | **0, 557** | **0, 567** | **0, 127** | **4, 391** | **0, 00** | **Accepted** |
| NI > PE | **0, 158** | **0, 168** | **0, 114** | **1, 385** | **0, 166** | **Rejected** |

| | | | | | | |
|---|---|---|---|---|---|---|
| AI > PE | 0, 292 | 0, 295 | 0, 152 | 1, 919 | 0, 055 | Rejected |

Source: Output PLS-SEM

**The influence of habited culture on pro-environmental behavior.**

Based on the table. 4 above, it can be said that the variable habited culture has a significant positive effect on pro-environmental behavior. The t-statistic value of this variable is 4.391 with a p-value of 0.00. This means that someone who has a habit of caring for the environment, such as saving energy, is more likely to do it consistently without feeling burdened because of something he does because the habit is done without conscious awareness. , this statement is in line with research conducted by Witherington in Andi (2010) defines a habit as a way of acting that is obtained through repeated learning, which eventually becomes permanent and automatic.

**The influence of normative influence on pro-environmental behavior.**

Based on the table. 4 above, the normative influence variable has no significant negative effect on pro-environmental behavior. The t-statistic value of this variable is 1.385 with a p-value of 0.166. This means that someone who is influenced by norms to carry out environmental care behaviors such as saving energy, that person is not always affected, it is not uncommon for someone to object if forced by someone others to save energy. The results of this study contradict the research conducted by Han and Kim (2010), who obtained the results of a positive normative influence on behavior if a person performs a behavior due to social pressure that comes from people in their environment.

**The Effect of affective influence on pro-environmental behavior.**

Based on the table. 4 above, the affective influence variable has no significant negative effect on pro-environmental behavior. The t-statistic value of this variable is 1.919 with a p-value of 0.055. This means that a person is not affected by his feelings and emotions towards environmentally caring behaviors such as saving energy. The results of this study contradict the opinion put forward by Kartono Kartini (2015), humans do what they feel to their emotions.

## 5. CONCLUSION

From this study, it can be concluded that the variable habited culture has a significant effect on pro-environmental behavior, which means that one's energy-saving habits can trigger pro-environmental behavior. Furthermore, the normative influence and affective influence variables do not have a significant effect on pro-environmental behavior, which means that external and emotional parties cannot influence a person toward pro-environmental behavior.

By conducting this research and having obtained the results, researchers can provide suggestions, namely that the hotel is expected to be able to increase its concern for the environment and must be able to influence guests to save energy by building good communication with hotel guests. Likewise, hotel guests are expected to be aware of the environment in order to realize concern for the environment, especially energy saving.

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