

# The Effect of Environmental Personality and Locus of Control on Employees' Pro-Environmental Behavior

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## Abstract:

The research is aimed at finding out the effect of environmental personality and locus of control on employees' pro-environmental behavior. The research method used in this research was ex post facto with 2 x 2 factorial design. The object of this research were 32 employees of Universitas Satya Negara Indonesia (USNI) Jakarta, picked using random sampling technique. There were three variables in this research; pro-environmental behavior, environmental personality, and locus of control. The data were analyzed using two-way ANOVA and Tuckey test. The research results showed that 1) there were significant differences on the pro-environmental behavior of employees with accurate environmental personality and those with less accurate environmental personality; 2) there were significant differences on the pro-environmental behavior of employees with internal locus of control and those with external locus of control; 3) for employees with internal locus of control, their pro-environmental behavior was more positive if they have accurate environmental personality; 4) for employees with external locus of control, their pro-environmental behavior was more positive if they have less accurate environmental personality; 5) there is an influence of the interaction between environmental personality and locus of control on pro-environmental behavior. Therefore, it can be stated that pro-environmental behavior of employees is not only influenced by their environmental personality, but also by their locus of control. In other words, to improve employees' pro-environmental behavior, both environmental personality and locus of control need to be considered.

**Keywords:** *environmental personality, locus of control, pro-environmental behavior*

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## I. INTRODUCTION

The ability to manage environment now become a strategic issue for organizations in the world, since environment is now considered as an asset that can provide added value for organizations. As a consequence, managers need to have more concern towards environmental issues [1]. The utilization of environmental management concept in government institutions is done to improve efficiency in environmental management, by giving more attention to the costs and the economic benefit, while also encourage employees to care more about environment and green city, so they will be able to realize sustainable development.

To prevent and minimize the impact of degradation on the quality of the environment, pro-environmental behavior should be shown by

employees. Pro environmental behavior can be defined as behavior that support environmental protection and not harming the environment[2]. The principle of pro-environmental behavior is closely related to one's personality. Pro-environmental behavior is the conscious efforts made by someone to minimize the negative impacts of his/her actions on the environment[3]. Pro-environment behavior is reflected through actions that can help the environment, such as using water and electricity efficiently, using public transportation, and other behaviors that contribute positively to the environment [4]. This means that employees must have environmentally friendly attitudes and behaviors. Several examples of pro-environment behavior, such as using energy efficiently and start to switch to renewable energy; reducing fuel use, such as choosing to use public

transportation, using bicycles or walking, reducing the use of goods that can produce waste, reducing consumerism, recycling unused items into other useful items, and play an active role in managing the environment in a society [5].

Based on the statements above, it can be stated that pro-environmental behavior is someone's effort to reduce the negative effects of his/her activities on the environment, with the dimension of energy conservation, transportation and mobility, waste avoidance, consumerism, recycling, and vicarious and social behavior toward conservation.

Personality is a structure and tendencies that explain someone's characteristic patterns of thoughts, emotions and behavior [6]. Personality is trait of someone's character and how that person can influence others, as well as how they see themselves in interacting with others and the conditions of the surrounding situation[7]. It means that personality is formed based on someone's interactions with the environment, how he influence others and how he/she understand and see himself, as well as how his/her inner and outer character measure the inner and outer measurable traits and interactions between people. Synthesis of environmental personality is the characteristics of a person who is dynamic in responding, reacting and interacting with others and the environment, in accordance with the factors that underlie personality, namely conscientiousness, agreeableness, neuroticism, openness and extraversion in order to pay attention to the environment.

Aside from personality, locus of control also has an influence on pro-environment behavior. Locus of control is the degree to which a person accepts personal responsibility for what happens to him/her. In other words, locus of control is someone's way of seeing an event, whether that person can control the event that happened to him/her. Most people sometimes believe that the things happen in his/her life are caused by his/her own doing. In this case, it can be stated that he/she has a strong internal locus of control. Those with internal locus of control usually feel very proud of themselves when they are successful, and they will blame themselves if they fail to do or achieve something. Meanwhile, those with strong external locus of control usually believe that everything happens to them is caused by someone else. They believe that all of their success or failures are

caused by someone else[8]. Locus of control has two dimensions; internal, that is, people believe that their destiny will be decided by their own actions. Meanwhile, external locus of control means that people believe that their destiny will be decided more by opportunity.

Stated that for people with internal locus of control, they believe that their success are decided by their own actions. Meanwhile, for those with external locus of control, they believe that their success is decided by the environment and situation around them [9]. Based on the statements above, it can be stated that locus of control is how people judge his/her success of failure. It has two dimensions; internal and external.

Formulation of the problem :1) Is there any difference in the pro-environmental behavior of employees with most accurate environmental personality and those with the less accurate one?, 2) Is there any difference in the pro-environmental behavior of employees with internal locus of control and those with external locus of control?, 3) Do those with internal locus of control have more positive pro-environmental behavior when they have most accurate environmental personality?, 4) Do those with external locus of control have more positive pro-environmental behavior when they have most accurate environmental personality?, 5) Is there any influence of the interaction between environmental personality and locus of control on pro-environmental behavior?

## II. RESEARCH METHODOLOGY

The method used in this research is ex post facto, with 2x2 factorial design. In this research, researchers wanted to see the effect of two independent variables on one dependent variable. Due to the problems and objectives of this research, the researcher decided to use ex post facto method, with a 2x2 design. The research is a quantitative research, and the data was gathered using survey.

The target population in this research was all the employees in Universitas Satya Negara Indonesia (USNI) Jakarta. The sampling procedure used was multistage random sampling. First, the employees of USNI was chosen using purposive sampling. Then, 120 employees were chosen using simple random sampling.

The data on environmental personality was then ranked, and the first 27% (9 employees) were considered as those with the “most accurate” environmental personality, and the last 27% (9 employees) were considered as those with “less accurate” environmental personality. In the next stage, sampling to determine the groups was carried out with this provision; those with “most accurate” environmental personality was considered as “high level” and those with “less accurate” environmental personality were considered as “low level” Then, through simple random sampling, 4 samples were discarded. In the end, 32 employees were chosen as samples. Hypothesis testing uses the two way Anova and continued with the Tukey test. The Tukey test was used for the same sample size for each treatment.

### III. RESULTS AND DISCUSSION

The results on the experiment to observe the effect of environmental personality and locus of control on employees’ pro-environmental behavior are presented in Table 1 below.

Table 1 Summary of the results of ANOVA 2x2

\*\* significant

Table 2. Result of Tukey Test

Note :

A<sub>1</sub>B<sub>1</sub> : The group with most accurate environmental personality and internal locus of control

A<sub>1</sub>B<sub>2</sub> : The group with most accurate environmental personality and external locus of control

A<sub>2</sub>B<sub>1</sub> : The group with less accurate environmental personality and internal locus of control

A<sub>2</sub>B<sub>2</sub> : The group with less accurate environmental personality and external locus of control

According to the results of the calculations presented in Table 1 and 2, the results of the research can be described as follows:

#### a. The difference of the pro-environmental behavior between employees with most accurate environmental personality and those with less accurate ones

According to the results of two-way ANOVA test, it was found that  $F_{\text{count}} = 52.55 > F_{\text{table}} = 4.57$  with  $\alpha = 0.01$ . It means that there were

significant differences in the pro-environmental of employees with most accurate environmental personality and those with less accurate ones.

Pro-environmental behavior can be related to several other variables, including personality, attitude, responsibility, and other situational factors[10]. Some research also showed that other variables such as desire to act, knowledge, and locus of control significantly correlated to pro-environmental behavior[11].

Pro-environmental behavior is proven by actions that are good to the environment, such as using water and electricity efficiently, using public transportation, and other behaviors that contribute positively to the environment. Based on the explanation above, it can be stated that there are differences in the pro-environmental behavior of employees with most accurate environmental personality and those with less accurate ones.

#### b. The difference of the pro-environmental behavior between employees with internal locus of control and those with external locus of control

According to the results of two-way ANOVA test, it was found that  $F_{\text{count}} = 32.81 > F_{\text{table}}$

Source of Variance	DF	SS	ASS	F <sub>count</sub>	F <sub>table</sub>	
					$\alpha = 0.05$	$\alpha = 0.01$
Effect of environmental personality (A)	1	820.3	820.3	52.55**	4.16	7.53
Effect of locus of control (B)	1	512.1	512.1	32.81**	4.16	7.53
Interaction	1	1,681	1,681	107.7**	4.16	7.53
Between groups	3	3,013	1,004.3	64.34**	2.95	4.57
Within a group	28	355.80	15.61	64.34**	2.95	4.57
Total	31	3,450				
Compared groups				Q <sub>count</sub>	Q <sub>table</sub>	Note
A <sub>1</sub> B <sub>1</sub> with A <sub>2</sub> B <sub>1</sub>				24.94	2.04	Significant
A <sub>1</sub> B <sub>2</sub> with A <sub>2</sub> B <sub>2</sub>				4.44	2.04	Significant

= 7.53 with  $\alpha = 0.01$ . It means that there were significant differences in the pro-environmental of employees with internal locus of control and those with external locus of control.

When someone want to utilize natural resources, he/she has to try to maintain its sustainability and also biodiversity. He/she has to help prevent environmental damage by following regulations and law concerning the environment that apply[12].

Environmental concern can be seen with latent indicators, including the importance of protecting the environment [13]. Locus of control is someone's way to see and assess their success or failure in protecting themselves against bad things, based on their own abilities or external factors. The concept of "locus of control" first proposed by Julian B. Rotter, an expert in social studies in 1954. In general, locus of control can be defined as someone's belief about who or what is deciding his/her fate. There are two types of locus of control; internal and external. Those with internal locus of control believe that everything that he or she do have consequences. They accept that everything that happens to them are consequences of what they have done before[14]. They believe that if they do good things, they will receive positive things, and vice versa. Meanwhile, those with external locus of control believe that everything that happens to them are caused by external factors that they cannot control, even the things that they do by themselves[15]. They believe that they cannot predict what will happen to them. Those with strong external locus of control tend to blame other people for things happened to themselves.

Individuals who have the belief that fate or events in their lives under their control are said to be individuals who have internal locus of control. Meanwhile, individuals who have the belief that the environment has control over the fate or events that occur in their lives are said to be individuals who have external locus of control. Based on the explanation above, it can be stated that there are differences in the pro-environmental behavior of employees with internal locus of control and those with external locus of control.

**c. For employees with internal locus of control, those with most accurate environmental personality have more positive pro-**

**environmental behavior compared to those with less accurate environmental personality.**

The mean score of  $A_1B_1$  group was 104.75, while the mean score of  $A_2B_1$  group was 80.13; it means that there were differences in the pro-environment behavior of the two groups. Then, after a Tukey test conducted at  $\alpha = 0.05$ , it was found that the value of  $Q_{\text{count}} = 24.94$  while the value of  $Q_{\text{table}} = 2.04$ . The results showed that for employees with internal locus of control, those with most accurate environmental personality have more positive pro-environmental behavior compared to those with less accurate environmental personality.

Pro-environmental behavior can be defined as behavior that aims to minimize the negative impacts of daily life on the environment. Several examples of this behavior including maintaining resources (water, air, soil), reducing the consumption of energy sources (electricity, oil, gas), recycling, and protecting the environment.

Locus of control can be defined as how an individual feels/sees the relationship between his/her behavior and its consequences, whether he/she can accept responsibility for his/her actions. Locus of control has two dimensions; external and internal. Individuals with internal locus of control are identified to rely more on themselves and their skills, rather than on situation in other words, skills and effort are important for them. Therefore, if an individual with internal locus of control fails to achieve something, they will blame themselves for lack of effort.

In short, it can be stated that for employees with internal locus of control, those with most accurate environmental personality have more positive pro-environmental behavior compared to those with less accurate environmental personality.

**d. For employees with internal locus of control, those with less accurate environmental personality have more positive pro-environmental behavior compared to those with more accurate environmental personality.**

The mean score of  $A_1B_2$  group was 98.25, while the mean score of  $A_2B_1$  group was 102.63; it means that there were differences in the pro-environmental behavior of the two groups. Then, after a Tukey test conducted at  $\alpha = 0.05$ , it was found that the value of  $Q_{\text{count}} = 4.44$  while the value of  $Q_{\text{table}} = 2.04$ . The results showed that for



employees with external locus of control, those with less accurate environmental personality have more positive pro-environmental behavior compared to those with most accurate environmental personality.

Pro- environmental behavior is needed by an organization, and it needs to be taught to its members/employees. Personality is as a whole pattern of attitudes, needs, characteristics, and behavior of a person. Pattern means something that has become standard or standard, consistently applies in the face of the situation at hand. The pattern of behavior is also a standardized behavior, which someone tends to display if he is confronted with certain life situations. Personality is a characteristic of someone that is formed from the response and reaction to other people in their environment, which is shown from how a person thinks, feels, and behaves.

For those with internal locus of control, they believe that their success or failure in life is determined only by their own act or behavior. Meanwhile, for those with external locus of control, they believe that their success or failure is determined by their environment/surroundings, not their act or behavior [16].

Individuals with external locus of control see that the key factors that can determine their success or failure are difficulty and fate. Therefore, if they experience failure, they tend to blame their environment, which certainly affects the actions in the future. Individuals with external locus of control are identified to rely more on others and favorable situations.

In short, it can be stated that for employees with external locus of control, those with less accurate environmental personality have more positive pro-environmental behavior compared to those with most accurate environmental personality. Although locus of control may be used to predict someone's behavior, there is a possibility that someone's locus of control may change from external to internal. This may happen if they have lots of ability and experiences. Meanwhile, those with no ability or experience may experience changes in their locus of control, from internal to external. The scale of locus of control is often used in the medical world to monitor the health of patients; in offices, to monitor the performance of employees; in schools, to evaluate students and teachers; and by psychiatrists to monitor someone's psychological state[17].

#### e. The effect of interactions between environmental personality and locus on control on employees' pro-environmental behavior

According to the results of two-way ANOVA test, it was found that  $F_{\text{count}} = 107.69 > F_{\text{table}} = 7.53$  with  $\alpha = 0,01$ . It means that there are some effect of interactions between environmental personality and locus of control on employees' pro-environmental behavior.

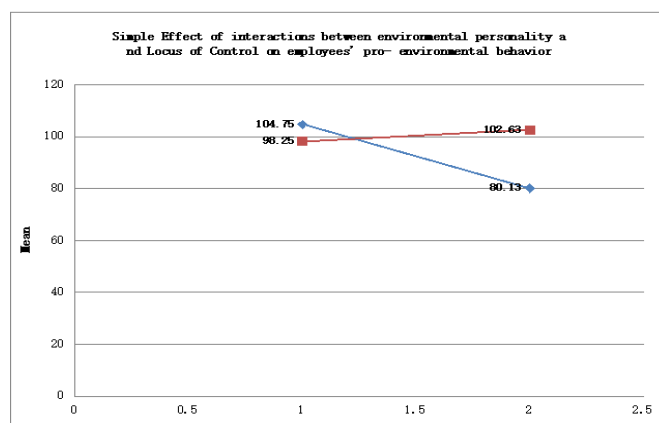


Fig 1. The simple effect of interactions between environmental personality (A); locus of control (B) on employees' pro-environmental behavior

There are several factors that will influence the development of pro environmental behavior, namely: 1) Personality, including openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. 2) Sense of control; individuals with internal locus of control will look for information more actively to help them with their effort to improve their life, including information on environmental issues. Internal locus of control has been associated with a greater desire to purchase and use environmentally friendly products [18].

There is a positive relationship between locus of control with pro-environment behavior [19]. Environmental awareness is another factor that influences pro-environmental behavior. Environmental awareness can be shown through environmental awareness. Awareness illustrates the positive psychological conditions in responding to changes in the surrounding environment. Awareness becomes a part of internal motivation to take action. Environmental awareness is also influenced by

socioeconomic conditions, value systems, special beliefs, and intentions.

In short, it can be stated that there are some effects of interactions between environmental personality and locus of control on employees' pro-environmental behavior.

#### IV. CONCLUSION AND RECOMMENDATION

The findings in this research are:

- Employees with the most accurate environmental personalities and employees with less accurate ones have different pro-environmental behavior.
- Employees with internal locus of control and employees with external locus of control have different pro-environmental behavior.
- Employees with the most accurate environmental personality and internal locus of control have more positive pro-environmental behavior compared to employees who have less accurate environmental personality and internal locus of control.
- Employees with less accurate environmental personality and external locus of control have more positive pro-environmental behavior compared to employees who have most accurate environmental personality and external locus of control.
- There are some effects of interactions between environmental personality and locus of control on employees' pro-environmental behavior.

Based on the findings, the conclusion of this study is that for employees with internal locus of control, if they have most accurate environmental personality, their pro-environment behavior will be more positive compared to those with less accurate environmental personality. Meanwhile, for employees with external locus of control, if they have less accurate environmental personality, their pro-environment behavior will be more positive compared to those with most accurate environmental personality. In other words, environmental personality and locus of control are both influential in determining the pro-environmental behavior of employees.

Recommendation of this research is that for employees; efforts are needed to increase knowledge and understanding of the pro-

environmental behavior of employees who care about the environment continuously by considering environmental personality and locus of control. For further research; Pro-environmental behavior of employees is not only influenced by environmental personality and locus of control, but there are still many other variables that influence it. Therefore we need further research studies involving variables that have not been studied in order to obtain a more comprehensive study of the development of pro-environment employee behavior.

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