

The art of going green: an analysis of the determinants of organizational citizenship behavior towards the environment and environmental performance

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Abstract

Sensitivity to environmental issues today has prompted organizations to motivate their members to participate in implementing environmentally sound practices. This study was conducted with the aim of examining the influence of intrinsic motivation and organizational culture on organizational citizenship behavior towards the environment (OCBE) and its impact on the environmental performance of employees in manufacturing companies in Bandung, West Java. This study also examines the mediating role of OCBE on the influence of intrinsic motivation and organizational culture on environmental performance. Respondents in the study were selected using purposive sampling technique. The data of this study was collected by survey method by distributing questionnaires to respondents which was measured using a 5-point Likert scale. The findings of this study indicate a positive influence of intrinsic motivation and organizational culture on OCBE and environmental performance, and prove that OCBE can affect environmental performance. This study also emphasizes the mediating role of OCBE on the influence of intrinsic motivation and organizational culture on the environmental performance of employees in manufacturing companies in Bandung, West Java. This study highlights the determinants of OCBE and environmental performance from contextual (organizational culture) and personal (intrinsic motivation) factors.

Keywords: *Intrinsic Motivation, Organizational Culture, Organizational Citizenship Behavior towards Environment, Environmental Performance*

Introduction

Today, the issue of environmental concern has long been a concern of various parties (Ahmad, 2015), and this issue has become increasingly widespread in recent years due to environmental losses caused by industrial waste or pollution (Shrivastava & Berger, 2010; Renwick et al., 2013). This encourages organizations to become more responsible and actively involved in managing the environment (Podgorodnichenko et al., 2020), improve reputation, reduce the risk of environmental disasters from waste and

hazardous chemicals from industry (Guerce et al., 2016), and improve environmental performance (Yusoff et al., 2020).

Environmental performance is an organizational commitment to protecting the environment and showing concern for the environment by defining operational parameters related to the environment that can be measured (Paillé et al., 2014; Shafaei et al., 2020). As the main element in the company, HR plays an important role in directing the company to be environmentally friendly. This is because individuals have a crucial role in building the basic foundation of an organization. All individuals in the organization are responsible for participating in implementing environmentally friendly policies and practices when these have been designed and established in the organization (Ahmad, 2015; Han et al., 2019).

The achievement of environmental performance and pro-environmental behavior, which in this study is represented by organizational citizenship behavior towards the environment (OCBE), can be achieved by individuals through various factors, namely contextual and personal factors. In contextual factors, organizations can design programs and conditions to support environmental performance to achieve competitive advantage (Yusoff et al., 2020), for example through emphasizing organizational culture that supports pro-environmental practices and actions (Pham et al., 2018; Prasetya & Nawangsari, 2018). On the other hand, employees can also build awareness to be actively involved in pro-environmental activities through their intrinsic motivation (Han et al., 2019; Keshavarz et al., 2021; Prasetya & Nawangsari, 2019).

Intrinsic motivation can have a positive influence on performance and various positive outcomes related to individual behavior in organizations (Shin et al., 2019). Individuals with intrinsic motivation tend to be engaged with various activities in their workplace and show seriousness in completing tasks and improving performance. The existence of intrinsic motivation can also encourage individuals to engage in purposeful activities at work, including pro-environmental activities such as OCBE and environmental performance (Han et al., 2019; Keshavarz et al., 2021; Prasetya & Nawangsari, 2019). Intrinsic motivation has been proven as one of the factors that influence OCB through fulfilling individual needs for their autonomy, competence, and relatedness (Shareef & Atan, 2018). Intrinsic motivation can also generate positive feelings that make employees want to benefit various parties, both the organization and the environment (Lazauskaite-Zabielske et al., 2015). Employees who have intrinsic motivation will show OCBE because they have an interest and feel pleasure when carrying out the behavior, not because of a desire to get appreciation and recognition from the organization (Grant, 2008; Shin et al., 2019).

In relation to environmental performance, intrinsic motivation shapes employee meaning, commitment, and engagement (Nguyen et al., 2019). Intrinsic motivation can arise, one of which is due to the similarity of values held by individuals and organizations (Han et al., 2019). Therefore, when this happens, individuals will have the drive to show high environmental performance in the organization. Shin et al. (2019) conducted a study on employees of manufacturing companies in South Korea and found that intrinsic

motivation has a positive effect on OCB and performance. Similar studies were also conducted by Shareef & Atan (2018), Çetin & Askun (2018), Nguyen et al. (2019) which proves that there is a positive relationship between intrinsic motivation to OCB and performance. Han et al. (2019) shows that intrinsic motivation can affect OCBE in employees in various industries in China. In line with this, Kehsavarz et al. (2021) and Prasetya & Nawangsari (2019) in their research also mention the positive influence of intrinsic motivation on OCBE and environmental performance.

This study considers the role of OCBE as a variable that can link the mechanism between contextual and personal factors in the organization to environmental performance. Paille et al. (2014) highlighted the mediating role of OCBE in the strategic relationship between HRM and environmental performance. In addition, Anwar et al. (2020) shows that green HRM practices in organizations can affect environmental performance indirectly through OCBE. In this study, OCBE is seen as having a role in linking the two determinants of environmental performance, namely intrinsic motivation and organizational culture. Individuals who have intrinsic motivation are predicted to develop pro-environmental behavior, because they feel pleasure to have initiative and more attention to the environment (Prasetya & Nawangsari, 2019), and ultimately improve environmental performance in the organization. In line with this, organizational culture will increase OCBE practiced by individuals, because they feel they have the same norms, beliefs, and attitudes as the organization, which are related to pro-environmental activities. When OCBE runs and is practiced by employees, it certainly leads to an increase in environmental performance (Pham et al., 2018).

Several previous studies have stated that research on organizational culture directed at environmental-related outcomes is still limited and needs to be expanded (Ren et al., 2018; Pham et al., 2018; Roscoe et al., 2019). In addition, the mediating role of OCBE is also seen as needing to be expanded to understand its antecedents (Anwar et al., 2020). This research was conducted in response to the limitations of several previous studies, by looking at the antecedents of environmental performance and the mediating role of OCBE from various factors, namely personal (intrinsic motivation) and contextual (environmental performance). Based on this, this study wants to examine the research questions regarding the direct influence of intrinsic motivation and organizational culture towards OCBE and environmental performance, OCBE towards environmental performance, and the indirect influence of intrinsic motivation and organizational culture on environmental performance through the mediating role of OCBE.

There are several contributions from this study. First, this study expands the literature on the role of HRM in improving positive environmental outcomes, namely OCBE and environmental performance. In addition, this research is also expected to fill the gap from the previous research that has been mentioned. Finally, this study tries to explain the antecedents and consequences of OCBE practice in organizations, namely the existence of intrinsic motivation, organizational culture, and environmental performance.

Research Methods

This study uses quantitative research methods with the type of explanatory research to explain the relationship between the variables contained in the study and explain the influence between variables. In addition, to test the hypothesis that has been formulated previously, this researcher uses employees of manufacturing companies in the city of Bandung.

The sampling technique used in this research is purposive sampling. We specifically choose the respondents based on the characteristics that they have been working in the company for at least a year, so that they understand the organizational culture of their firm, and we choose the manufacturing firms which state that they have green culture and values. Based on these characteristics, the respondents who matched to our criteria is 130 respondents, but the one who filled the data completely is 108 respondents.

The data analysis method used is quantitative data analysis based on data collected from respondents, which is processed using SEM-PLS. Data collection is done online using Google Forms which is distributed to respondents. The measurement scale used in this study is a Likert scale measurement technique.

The variable measurement items in this study are as follows:

1. The intrinsic motivation variable is measured by six items adopted from the research of (Graves et al. 2013; Han et al., 2019).
2. The organizational culture variable is measured by five items adapted from research by (Robbins & Coulter, 2016; Prasetya & Nawangsari, 2019).
3. The variable organizational citizenship behavior towards the environment (OCBE) is measured by three items adopted from (Boiral & Paille, 2012; Anwar et al., 2020).
4. The environmental performance variable is measured by six items adapted from the research (Anwar et al., 2020).

Result and Discussions

Indicator measurements (Outer Model) are tried to see whether the markers used can measure a potential variable in a valid and reliable way. Chart 1 shows that the outer loading numbers for all markers meet the income benchmark with numbers > 0.700 and the Average Variance Extracted numbers for all measurement markers meet the income benchmark with numbers greater than 0.50. With the achievement of outer loadings and Average Variance Extracted numbers up to you could say the measurement marker is ASI in measuring potential elastic. From chart 1 it is also known that the Cronbachs Alpha and Composite Reliability values for all markers meet the revenue benchmark with a value greater than 0.70 meaning that all markers can be considered reliable to be used as measuring instruments in this study. Measurement benchmarks can be observed in Chart 1.

The determination coefficient experiment intends to identify how much influence or role the exogenous variables have on the endogenous variables. In this test the coefficient of determination of Activity Results is 0.410. It means that Intrinsic Encouragement and Organizational Citizenship Behavior as mediation elasticities can influence Activity Results by 41.0%. On the other hand, the coefficient of certainty for Organizational Citizenship Behavior is

0.475, meaning that Organizational Citizenship Behavior can be influenced by Intrinsic Motivation and Organizational Culture by 47.5%.

Table 1. Validity and Reliability of Indicators

Variable	Indicator	Outer Loadings	Average Variance Extracted	Cronbach's Alpha	Composite Reliability
Intrinsic Motivation	IM1	0,718	0,503	0,802	0,858
	IM2	0,777			
	IM3	0,713			
	IM4	0,715			
	IM5	0,733			
	IM6	0,785			
Organizational Culture	OC1	0,860	0,581	0,713	0,811
	OC2	0,787			
	OC3	0,760			
	OC4	0,773			
	OC5	0,798			
Organizational Citizenship Behavior	OCBE1	0,860	0,658	0,740	0,852
	OCBE2	0,830			
	OCBE3	0,738			
Work Performance	WP1	0,733	0,623	0,747	0,823
	WP2	0,784			
	WP3	0,807			
	WP4	0,789			
	WP5	0,837			
	WP6	0,739			

Assumptions can be obtained if the t statistic is greater than the t chart. With an independent part value of 96 and a significance degree of 5%, the t chart value is 1.985. In this test all alternative assumptions can be obtained because it has a statistical t number greater than the t chart. For more details, testing information is presented in the next explanation:

1. The causal relationship between Essential Encouragement and Organizational Citizenship Behavior has a positive and important influence. The goal continues to grow due to Essential Motivation so that the Organizational Citizenship Behavior number increases by 0.282 and has a probability number of 0.000 which is smaller than 0.05. Presumption 1 is obtained.
2. The bond due to the impact between the Essential Encouragement and Activity Results influences positively and is important. The intent continues to grow due to the Essential Push so that the Activity Result number will increase by 0.198 and has a probability number of 0.010 which is less than 0.05. Presumption 2 is obtained.
3. Bonds due to the impact between Agency Customs and Corporate Citizenship have a positive and important influence. The goal continues to increase due to Agency Behavior so that the Organizational Citizenship Behavior number increases by 0.499 and has a probability number of 0.000 which is smaller than 0.05. Presumption 3 is obtained.

4. Bonds due to the impact between Organizational Culture and Activity Results have a positive and important influence. The intention continues to increase due to Agency Customs so that the Activity Result number increases by 0.330 and has a probability value of 0.004 which is smaller than 0.05. Presumption 4 is obtained.
5. The bond due to the impact between Organizational Citizenship Behavior and Activity Results influences positively and is important. The intent continues to grow as a result of Organizational Citizenship Behavior so that the Activity Results number increases by 0.323 and has a probability number of 0.005 which is smaller than 0.05. Presumption 5 is obtained.

Table 2. Model Causality Test

Model Causality	Original Sample	T Statistics	P Values
Intrinsic Motivation --> Organizational Citizenship Behavior	0,282	3,920	0,000
Intrinsic Motivation --> Work Performance	0,198	2,595	0,010
Organizational Culture --> Organizational Citizenship Behavior	0,499	7,197	0,000
Organizational Culture --> Work Performance	0,330	2,869	0,004
Organizational Citizenship Behavior --> Work Performance	0,323	2,742	0,005

This experiment was attempted to identify the position of intermediate elastic in giving the effect of intermediary to the causal relationship between exogenous elastic and endogenous variables. The results of this test can be seen in the Special Indirect Impact chart as follows.

- 1) The Organizational Citizenship Behavior variable can be a bridge that has an important influence on the bond between Essential Motivation and Activity Results, this can be seen from Sobel's trial number of 2.224 which is greater than the z chart of 1.96 with a probability number of 0.025 which is less than 0.05. Presumption of 6 was obtained.
- 2) The Organizational Citizenship Behavior variable can be a bridge that has an important influence on the relationship between Organizational Culture and Activity Results, this can be seen from the Sobel test score of 2.560 which is greater than the z chart of 1.96 with a probability number of 0.010 which is less than 0, 05. Presumption 7 is obtained.

Table 3. Specific Indirect Effects

Variabel	Specific Indirect Effects	Sobel Test Statistics	p
Intrinsic Motivation --> Organizational Citizenship Behaviour --> Work Performance	0,063	2,244	0,025
Organizational Culture --> Organizational Citizenship Behaviour --> Work Performance	0,111	2,560	0,010

Based on these findings, it can be seen that OCBE can have an important function as an intervening variable in the relationship between Intrinsic

Motivation and Activity Results and the relationship between Organizational Culture and Activity Results with a significance level of 5%. The form of measurement in this study is shown in sketch 1 as follows:

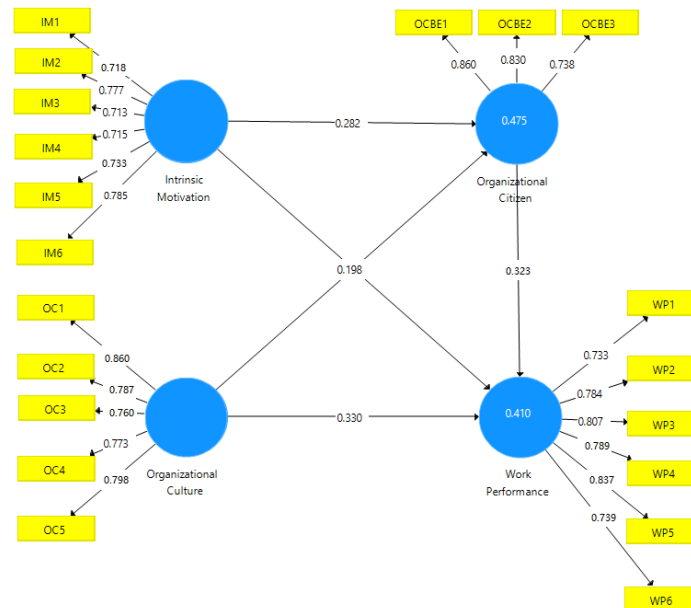


Figure 1. Research Model

Discussion

The results of hypothesis testing indicate that the proposed hypothesis is entirely accepted. Tests on the first and second hypotheses, regarding the effect of intrinsic motivation on OCBE and environmental performance were accepted. This means that intrinsic motivation can have a positive influence on OCBE and environmental performance. The results of this study are in accordance with the findings of (Han et al., 2019; Keshavarz et al., 2021; Prasetya & Nawangsari, 2019; Shin et al., 2019; Shareef & Atan, 2018; Etin & Askun, 2018; Nguyen et al., 2019). The existence of intrinsic motivation allows individuals to demonstrate positive behavioral outcomes and support progress in the organization, such as OCBE and environmental performance. This is because intrinsic motivation emphasizes the encouragement of individuals based on their inner interests and pleasures. Individuals will show positive behavior in organizations because they feel their needs are met with autonomy, competence, and linkage with the organization. The higher the intrinsic motivation of the individual, the higher the OCBE and environmental performance he practices in the organization.

Moreover, the results of this study also indicate that organizational culture can affect OCBE and environmental performance. This finding indicates that contextual factors from the environment such as organizational culture can improve OCBE and employee environmental performance. This supports the results of previous research conducted by (Prasetya & Nawangsari, 2019; Al-Musadieq et al., 2018; Alsheikh & Sobibah, 2019; Pham et al., 2018; Paille et al., 2014). Organizational culture is a shared value shared by members of the organization. A conducive organizational culture can enable individuals to also

have the same beliefs, values, and expectations as the organization, and practice them in positive behaviors such as OCBE or environmental performance. When individuals feel that their organizational culture is supportive and have policies for carrying out pro-environmental activities, employees will give greater effort, including carrying out extra-role behaviors beyond what is their main task. Organizational culture can also build individual awareness to care more and focus on environmental conditions, thereby increasing environmental performance practiced by individuals.

Furthermore, the researchers examine another predictor of environmental performance, namely OCBE. The results of this study prove that OCBE can have a positive effect on environmental performance. This finding supports the results of previous research conducted by (Anwar et al., 2020; Han et al., 2019; Boiral et al., 2015; Paille et al., 2014). The higher the OCBE shown by individuals in the organization, the higher the environmental performance. Individuals can practice OCBE in organizations in a variety of ways, from simple to complex. Individuals will share ideas and use their abilities to address and provide solutions to environmental issues in the organization. In the end, extra-role behavior such as OCBE will improve environmental performance in the organization.

Finally, this study examines the role of OCBE as a mediator on the relationship between intrinsic motivation and organizational culture on environmental performance. The findings of this study prove that OCBE can act as a mediator on contextual and personal factors that affect environmental performance. Intrinsic motivation can develop pro-environmental behavior in individuals, and ultimately improve environmental performance. In addition, organizational culture will also increase OCBE. OCBE practiced by individuals will lead to an increase in environmental performance. This finding supports the results of research conducted by (Prasetya & Nawangsari, 2019; Pham et al., 2018).

Conclusion

This research contributes to literature by expanding the description of essential motivations, organizational culture, and OCBE which are seen as having limitations in controlling their influence on the capabilities of the manufacturing industry employee area in Bandung, West Java. This research also examines the limitations and requirements of previous research by linking essential motivations and organizational culture with regional capabilities, and looking at OCBE's position as a bridge. The results of this research prove that essential motivation, body culture, and OCBE have a positive effect on employee performance. This research also explains the position of OCBE mediation in the relationship between intrinsic motivation and organizational culture to environmental capabilities.

It is hoped that this research can be used as material for estimation of industry directives, administrators, and employees of the manufacturing industry in the city of Bandung. Employees need to be intrinsically motivated to improve OCBE and area performance. On the one hand, OCBE capabilities and space can also be enhanced through an organizational culture that supports and promotes pro-environmental attitudes from employees.

There are some limitations in this research. Initially, research information is combined in one duration (cross sectional). Even though this research has been carried out with appropriate scientific principles, longitudinally combined research information is still needed to determine the elastic causes of research with certainty, and whether the effects will change over time. After that, this research was specifically tested on employees of the manufacturing industry in Bandung, West Java. Replication of research is needed in different conditions and positions, resulting in a more robust abstraction of results. This research also has not considered specific situations that can strengthen or weaken the observed elastic bonding. Future researchers can use elastic mediators and analyze conditional factors that can affect environmental performance.

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