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Organizational Citizenship Behavior for the Environment among Undergraduates

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Abstract

The environment is a very valuable gift to human well-being. Humans depend heavily on the natural resources of the earth. An unpolluted environment gives us the atmosphere needed for a healthy and perfect life. If individuals are unaware of the value of the environment, the government's efforts to create infrastructure, legislation, and enforcement will be in vain. The mere act of enforcing the law is insufficient to ensure that pollution instances do not repeat. What's more important is for citizens to understand the value of the environment so that we can establish a sustainable environment for all. One of the concepts related to the desire to preserve the environment among employees or individuals is organizational citizenship behavior for the environment (OCBE). The data of 312 undergraduates was targeted using convenience sampling via a survey questionnaire. The data was then analysed using multiple regression. The results of this study found that students' OCBE was significantly influenced by four variables, namely, personal environmental belief, green value, self-efficacy, and environmental self-identity.

Keywords: Organizational Citizenship Behaviours for The Environment, Self-Efficacy, Green Values, Personal Environmental Belief, Environmental Self-Identity, Undergraduates

Introduction

OCBE is a pro-environmental discretionary option. Scholars have pointed out that these actions are entirely voluntary (Boiral & Paille, 2012). Among the variables that have been found to influence OCBE are self-efficacy, values, environmental self-identity, and personal environmental beliefs (e.g., Ciocirlan, 2017; Eisenberg & Mussen, 1989; Werff et al., 2013; Nordlund & Garvill, 2002). However, not many studies have been conducted involving the younger generation. Fostering values, attitudes, and behaviours that focus on environmental conservation should be started among the younger generation. Strengthening a positive nature and attitude towards the environment at an early stage will allow for a steady and lasting impact. The expected outcome of this study, which is the formation of a sustainable model of undergraduates' OCBE, can contribute to improving the existing government policy on the environment. We should start to emphasize more on the role of the younger generation in achieving a clean environment, a safe, healthy, and

productive environment for present and future generations. The strengthening of OCBE, especially among the younger generation, will enable the creation of an environment that guarantees social well-being, environmental sustainability, and a green economy.

The world's future is in jeopardy as the Earth's environment continues to be harmed by the negative effects of business and human activity (Khan et al., 2021). Concern for future generations has made society more cautious regarding environmental sustainability, climate change, and global warming concerns (Pacana & Ulewicz, 2017). Scientists have long argued that if human existence on this planet is to be perpetuated, civilizations must adapt (Oliveira et al., 2016). The environment becomes a place inhabited by human beings, and human beings use the environment to meet their needs and wants in life. An ecosystem is an interaction or relationship between living things and non-living things in nature. Humans affecting the environment by changing ecosystems will invite disaster for humans themselves and the environment itself. Over the past 20 years, systematic efforts have been made to understand the motivations of pro-environmental behaviours (Paille et al., 2020). Past studies have also examined several variables related to pro-environmental concerns, such as green organizational citizenship behaviour (G-OCB) (e.g., Xiang & Young, 2020) as well as organizational citizenship behaviour for the environment (OCBE) (e.g., Khan et al., 2021). Among the factors that have been identified as contributing to attitudes or behaviours that focus on environmental conservation are green human resources practices (Silvester et al., 2019), supervisory support behaviour toward the environment, environmental management practices, personal environmental beliefs, job self-efficacy, affective commitment (Paille et al., 2020), green culture and green values (Hooi, Liu & Lin, 2021), environmental management system (Khan et al., 2021), and personality (Terrier et al., 2016).

Although it has been claimed that to achieve environmental sustainability, organizations require the engagement of all employees at all levels (Paul & Nilan, 2012), not all employees are interested in environmental issues (Ciocirlan, 2017). Excessive human intervention, failure to practice sustainable development, weakness of enforcement agencies, and low community response to environmentally friendly lifestyles are among the causes of disasters and environmental pollution. We fail to fully appreciate and implement the goal of sustainable development when we fail to manage the environment prudently. Thus, in curbing the deterioration of quality and the destruction of the environment, awareness and identity must be nurtured in the souls of the younger generation so that they too preserve and conserve the increasingly threatened environment. The younger generation needs to be at the forefront of environmental conservation efforts. With their mastery in terms of the internet and social media, the ability to think of creative and innovative ideas allows them to be better able to influence the community to be more aware and involved with environmental conservation. Young people are recognized for their role in achieving the Sustainable Development Goals by 2030.

The long-term ecological effect of environmental degradation is arguably one of the world's most serious problems today. Ignoring these consequences has the potential to destroy the entire ecosystem, resulting in environmental devastation, affecting human health and the extinction of animals (Hooi et al., 2021). Humans are unable to cope with pollution caused by natural disasters such as floods or earthquakes. Nevertheless, the pollution that we should all try to overcome is pollution that stems from human activities. The effects of pollution in terms of global warming, the atmosphere, and the depletion of the ozone layer not only affect humans but also animals and plants. The concept of Sustainable

Development Goals (SDGs) was introduced because the world is haunted by widespread environmental destruction due to various human activities that place less emphasis on sustainability aspects in all their actions (D'Silva et al., 2018). Thus, starting in 2015, the concept of the SDGs has been expanded globally, which consists of 17 key goals that must be achieved by 2030. Sustainable development 2030 places environmental conservation as one of the key criteria towards creating a prosperous world society.

Past studies have found that one of the important elements in environmental conservation is the role of citizens who have a high level of organizational citizenship behaviour for the environment, or OCBE (Khan, 2021; Hooi et al., 2021). However, very few studies have focused on OCBE or its antecedents (Cheema et al., 2020; Testa et al., 2018). It is, therefore, essential to build on the knowledge we have about what leads to OCB-E by employees (Mi et al., 2019). To our knowledge, previous studies have not examined OCBE among students. It is important to study OCBE as well as the factors that contribute to OCBE among students, as they are the generation that will be directly involved with the development of the country in the future. Personal encounters with nature may be more successful in driving environmental action than enforcement. Personal encounters with environmental challenges such as river pollution and recycling can raise awareness and motivate future environmental conservation efforts. This study contributes to the field of knowledge by adding empirical evidence with respect to the involvement of young people with environmental conservation.

If we can increase the level of OCBE among students, it will have a positive impact on environmental conservation efforts for the long term. It is very meaningful to see the potential of OCBE as a catalyst for long-term environmental sustainability.

Based on the above discussion, this study is carried out to achieve 3 objectives:

- To investigate factors influencing OCBE among Malaysian undergraduates.
- To develop a model of students' OCBE.

Literature Review

Organizational Citizenship Behavior for the Environment

OCBE is a pro-environmental option that is available on a discretionary basis. These activities are fully voluntary in nature (Boiral & Paille, 2012). These activities are carried out by employees in the workplace to improve the working environment (Pham et al., 2019). The term "organizational citizenship behaviours" was coined to describe the concept of OCBE (Boiral et al., 2015). The difference between these two concepts is that when employees engage in organizational citizenship behaviour (OCB), they do it with the organization's best interests in mind (Boiral et al., 2015; Paille & Boiral, 2013). Employees that participate in OCBE, on the other hand, are concerned about the environment (Paille & Boiral, 2013). Boiral (2009) defines OCBE as "individual and discretionary social behaviors not explicitly recognized by the formal reward system and contributing to improve the effectiveness of environmental management of organizations" (p. 223). Eco-helping, eco-initiatives, and eco-civic-engagement are three dimensions of OCBE (Boiral and Paille, 2012). Eco-helping entails assisting coworkers on environmental matters. When an employee participates willingly in the organization's environmental events, this is referred to as eco-civic engagement. The third pillar of OCBE is eco-initiatives, which entails employees taking leadership of environmental initiatives and taking concrete efforts to benefit the environment (Boiral and Paille, 2012).

Antecedents of OCBE

Personal environmental views are affected by personal values and expressed as a response to the negative consequences of human activities on the natural environment (Stern et al. 1995, 1999). According to research (Bissing-Olson et al., 2013), environmental beliefs have been proven to alter OCBE. Personal environmental beliefs may lead individuals to behave responsibly if they perceive that they can make a difference in activities with a strong environmental purpose (Ciocirlan 2017).

Individuals' self-efficacy is described as their belief in their capacity to plan and perform a task.

Bandura, 1994. Self-efficacy is crucial to study since it is linked to self-esteem, locus of control, and prosocial development. Individuals who have high levels of confidence and control in their skills to execute and complete tasks are more likely to engage in pro-social activities, which are actions taken to help or benefit another person or group of people (Eisenberg and Mussen, 1989). According to previous study, employment self-efficacy fosters the emergence of OCBE based on prior experience from sustainable behaviours conducted in the workplace (Lo et al., 2012).

Environmental factors, such as biospheric values and environmental self-identity, are linked to pro-environmental behaviour, according to research (Balunde *et al.*, 2019). Environmental self-identity refers to a person's perception of himself or herself as a person who acts in an ecologically conscious manner (Werff et al., 2013). People are compelled to act in ways that reflect how they feel themselves or to look consistent (Bem, 1972). Individuals with a strong environmental self-identity are more likely to recycle (Whitmarsh and O'Neill, 2010), use sustainable transportation and drive fuel-efficiently (van der Werff et al., 2013b), participate in environmental activism (Fielding et al., 2008), intend to eat less meat (van der Werff et al., 2013b), and have a preference for organic foods (Werff et al., 2013b). Research shows that people's values are related to pro-environmental behaviour (Balunde et al., 2019). Values are an important antecedent to a variety of pro-environmental behaviours (Nordlund and Garvill, 2002). Two types of values are particularly important in explaining pro-environmental behaviour, namely biospheric values (caring about nature and environmental protection) and altruistic values (focusing on the well-being of others) (Steg and De Groot, 2012). Because green values are imperative to corporate greening initiatives, contemporary value scholars have called for a more profound understanding of their role (Harris & Crane, 2002; Post & Altma, 1994; Roscoe et al., 2019). It is expected that organisations that promote green values that are congruent with employees' green values will achieve higher levels of G-OCB, a construct closely related to OCBE (Dumont et al., 2017). Moreover, scholars have also emphasised that personal values influence individual attitudes and behaviours (Bansal and Roth, 2000; Chun, 2009). Several studies (e.g., Chou, 2014; Kim et al., 2019) have established a significant direct association between personal green values and green behaviour.

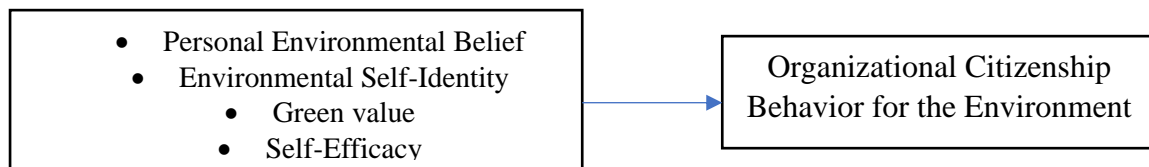
Theoretical Perspectives

The complicated interaction between human behaviour and the environment is not adequately explained by any single hypothesis. The Theory of Reasoned Action and the Theory of Planned Behavior, both of which explain how intentions, attitudes, and perceived behavioural control are key components in forecasting human behaviour (Fishbein and Ajzen, 1980), are commonly cited models for understanding pro-environmental behaviour. Knowledge (environmental concern), skill, and the internal locus of control influence the

intention of environmental behaviour, according to the Hines model of responsible environmental behaviour (Hines et al., 1987). Situational considerations, such as economic restrictions, social pressure, and other opportunities, are thought to impact environmental behaviour in Hine's model. Individual environmental behaviour is influenced by four categories of variables, according to Stern (2000): contextual, attitudinal, socio-demographic, and habitual. Tanner (1999) indicates that both subjective and objective restrictions, such as personal awareness of environmental issues or a sense of duty, have a major impact on an individual's environmental behaviour. In terms of personal influences, an employee may be inspired to pursue green workplace initiatives based on their personal values and standards about nature and the environment (Ramus, 2001). The Norm Activation Model (Schwartz and Howard, 1981) and its spin-off, VBN (Stern, 2000), are two further models that scholars employ to predict and explain environmental behaviour. Values influence a person's awareness of the repercussions of their actions, which influences their awareness of negative consequences on a valued object. A sense of obligation to act is shaped by the perceived ability to decrease the threat to this valuable thing. The stronger one's environmental care, the higher one's problem awareness is. Furthermore, the more in touch with one's belief system, the more aware of how one's actions affect the environment (Van der Werff and Steg, 2016). Individual, self-interested, or egoistic values are less important in determining pro-environmental behaviour than universal, altruistic, pro-social, and biospheric values (De Groot and Steg, 2008).

Based on the above review of literature, we proposed the following research model and hypotheses to be tested.

Research Model



Hypotheses Statement

H2 - There is a relationship between personal environmental beliefs and OCBE.

H3 - There is a relationship between self-efficacy and OCBE

H4 - There is a relationship between environmental self-identity and OCBE

H6 - There is a relationship between green value and OCBE

Methodology

This research is correlational and cross-sectional with a quantitative approach (Gravetter & Forzano, 2009) aimed at achieving the objective of evaluating the effects of demographic factors, values, personal environmental beliefs, green values, and self-efficacy on OCBE. The population of this study includes all undergraduates undergoing bachelor's degree and diploma programs in public higher learning institutions. The sample size required is about 362 (Krejcie & Morgan, 1970).

Procedure

The process of gathering the data for this research was conducted using Google forms distributed using several emails and WhatsApp groups. Due to Movement Control Order

(MCO) which limits the ability of researchers' mobility, a convenience systematic sampling technique will be used to collect the data (Sekaran & Baugie, 2010). Clear instructions accompanied these email and Google form and the contact details of the researcher will also be included in the questionnaire form so that the respondents may ask if there are any inquiries about any clarifications that need to be explained more. The objectives of this study will be clearly stated in the questionnaire. Participation is voluntary and researchers will ensure that confidentiality is fully preserved. Respondents will be informed that it took approximately 10 minutes to respond.

Using a convenience sampling method, a total of 312 students responded out of the total of 747 students who received the Google form questionnaire distributed across several WhatsApp groups. Although convenience sampling was used in this study, efforts were made to ensure that the characteristics of the study sample were similar to the characteristics of the population, especially in terms of gender, level of study, and field of study. Most of the students for this study were female (64.4%). About 70.8% of the students were studying bachelor's degree programs while 29.2% of the students were studying diploma programs. The number of students from science and technology (52.2%) is about the same as the number of students from administrative science (47.4%).

Measurement

Measurement for all the study variables is taken from established sources, which are reliable and valid. The details of the measurement are presented below. All variables will be measured using a 5-point Likert scale.

Variable	No. of Item	Source	Sample item
Personal Environmental Belief	5	Dunlap et al. (2000)	Earth-like a spaceship with limited room and resources
Environmental self-identity	3	van der Werff, E.; Steg, L.; Keizer, K (2013)	Acting environmentally friendly is an important part of who I am
Green value	4	Dumont et al. (2017) and Chou (2014)	I feel obliged to do whatever I can to prevent environmental degradation
Self-Efficacy	3	Spreitzer (1995)	I am confident about my ability to do my academic tasks.
Organizational Citizenship Behavior for the Environment (OCBE)	10	Boiral and Paillé (2012)	I consider the consequences of my actions before doing something that could affect the environment

Data Analysis

To answer the research questions, this study will be using correlations and multiple regression. Standard deviation, mean, median is calculated for the study variables. Multiple regression is used to examine the effect of independent variables on the dependent variable. Demographic factors, self-efficacy, personal environmental belief, environmental

self-identity, values - biospheric and altruistic, green value are the independent variables and OCBE is the dependent variable. Cronbach Alpha and Factor Analysis will be used to confirm the reliability and validity for all measures (Hair et al., 1998).

Findings

Table 1. Reliability Analysis

Variable	No of Items	α
Personal Environmental Belief	5	.94
Environmental Self-Identity	3	.94
Green value	4	.86
Self-Efficacy	3	.71
OCBE	10	.81

Cronbach's alpha coefficients were used to determine scale reliability. The results are shown in Table 1. All variables have alpha coefficients greater than the threshold value of 0.7, indicating that they were reasonably reliable (Nunnally and Burnstein, 1994).

Table 2. Table Means, standard deviation, minimum and maximum

Variable	Min	Max	Mean	Std. Deviation
Personal environmental belief (PEB)	1.00	5.00	3.98	.67
Environmental self-identity (ESI)	1.00	5.00	4.12	.65
Green value (GV)	2.00	5.00	4.21	.52
Self-efficacy (SE)	2.00	5.00	3.92	.55
OCBE	1.00	5.00	4.15	.62

Table 2 shows the means, standard deviations, minimum and maximum of all measures in this study. All the variables were measured using the 5-point Likert scale. As can be seen, all mean scores were above the mid-point of 3, with the highest score of 4.21 for green value and the lowest of 3.92 for self-efficacy. Based on this analysis, it can be said that the students have a high level of OCBE as well as other variables. In general, the standard deviation values for most of the constructs showed that the observations were rather close to the mean.

Table 3. Correlations Between Study Variables

	1	2	3	4	5
1. PEB	-				
2. ESI	.23*	-			
3. GV	.28*	.19*	-		
4. SE	.31**	.10	.04	-	
5. OCBE	.34**	.28**	.18*	.17*	-

**p<.01; *p<.05

To measure the extent to which study variables are related, Pearson correlation was carried out. As can be seen from Table 3, OCBE was significantly related with PEB ($r=.34$, $p<.01$), ESI ($r=.28$, $p<.01$), GV ($r=.18$, $p<.05$) and SE ($r=.17$; $p<.05$). The correlational analysis provides initial support for the study hypotheses.

Table 4. Multiple Regression Analysis

Independent Variables	β	Sig.
Personal Environmental Belief (PEB)	.34	.000
Environmental self-identity (ESI)	.31	.000
Green value (GV)	.19	.012
Self-efficacy (SE)	.17	.018
R Square .10 Adjusted R Square .09 F = 7.050**		

Before conducting multiple regression analyses, the assumptions of multicollinearity, normality, homogeneity of variance, and independence of errors were tested. No multiple regression assumption was found to be violated (Hair et al. 1998; Muthén and Kaplan, 1985; O'Brien, 2007; Durbin and Watsons, 1971). As can be seen in Table 4, the regression results showed that the model explained 9% of the variance. PEB ($\beta=.34$; $p<.01$), ESI ($\beta=.31$; $p<.01$), GV ($\beta=.19$; $p<.05$) and SE ($\beta=.17$; $p<.05$). Hence, all the hypotheses were accepted.

Discussion and Conclusion

Empirical studies looking at the factors that contribute to OCBE among the younger generation are very rare. This study is part of an effort to examine how the OCBE among the younger generation can be strengthened. The younger generation is the future heir of a country. It is very important that OCBE among the younger generation is nurtured from an early stage to produce a generation that is able to take into account the importance of the environment in whatever their actions. The results of this study show that efforts to cultivate and strengthen OCBE among the younger generation require a focus on four elements, namely PEB, ESI, GV, and SE. The findings of this study indicate that students' OCBE can be improved if university instructors are willing to nurture elements of PEB, ESI, GV, and SE among students. The OCBE model developed through this study is able to be used by institutions involved in strengthening the behaviors that care about the environment among students.

Efforts should be made, such as providing exposure to students related to the importance of the environment through related activities and providing challenging tasks so that students are able to continuously improve their abilities and confidence. Universities should encourage their students to use public transport as much as possible so as to reduce the carbon footprint left behind by automobiles. There are many other green transportation options, such as walking or biking. The latest concept of carpooling is also a great way to reduce automobile emissions. To the best of our knowledge, this is the first study to examine factors influencing OCBE among undergraduates. Some weaknesses in the study are worth mentioning. First, this study is a cross-sectional study and is descriptive in nature. The sample of this study was selected from a branch of a public university, which may affect the ability to generalise the findings. Future studies should continue to examine the content domain of students' OCBE and investigate other contributing factors. Next, increasing the size of the sample selected from several representative educational institutions will allow for generalization of the results.

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