

Values Orientation Towards Intention to Sustain in Environmental Volunteering: Views from University Students

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Received: July 22, 2022 Accepted: August 24, 2022 Published: September 22, 2022

doi:10.5296/ije.v14i3.20106 URL: <https://doi.org/10.5296/ije.v14i2.20106>

Abstract

Determining the factors influencing environmental volunteering provide valuable input on how to retain and sustain environmental volunteerism among students. Previous research shows that volunteerism is attributed to many factors, such as motivation for personal development, social norms, well-being, and the environment. However, there is a lack of research on the value orientation of environmental volunteering, specifically environmental values and intentions linked to environmental volunteering behaviour. Comparing values orientation in environmental volunteering between genders can provide comprehensive guidelines for the intervention strategy to foster environmental volunteering participation among students. Therefore, this study examined university students' values orientation and intention to sustain their participation in environmental volunteering. There are four (4) subconstructs for values orientation, i.e., egoistic, biospheric, altruistic, and religious values. Random sampling was used, and a survey was conducted among 356 university students with experience in environmental volunteering. Descriptive analysis was employed to analyse the level of values orientation and intention to sustain their involvement in environmental volunteering. The t-test was conducted to determine the differences in levels of values orientation and intention to sustain environmental volunteering based on gender. The results indicate that values orientation and intention among the respondents are high, and there is a significant difference in biospheric values orientation based on gender. Thus, this research makes a valuable contribution in understanding issues affecting University students' participation in environmental volunteering. This study highlights the role of tertiary level environmental education in promoting environmental volunteering among students, as a part of the environmental conservation effort and to maximize students' individual growth.

Keywords: environmental volunteer, environmental education, values orientation, environmental conservation, social work

1. Introduction

Human behaviour and unsustainable practices have led to environmental damages and a substantial financial allocation is needed to rehabilitate and preserve our environment. Consequently, limited financial resources is one of the main obstacles to environmental conservation. In the meantime, Madsen et al., (2021) stated that the lack of resources can be addressed by increasing attention to non-financial and voluntary activities. Volunteering is the provision of time or works for the good or welfare of others without expecting compensation or rewards (Gulliver et al., 2022; Woosnam et al., 2019; Omoto & Packard, 2016) and there are five main modes of environmental volunteer activity: activism, education, monitoring, rehabilitation, and promotion of sustainable living (Measham & Barnett, 2008). In this light, environmental volunteering not only benefits nature conservation but also affects the personal development of volunteers, as it helps them to gain socio-psychological and health benefits, and improved nature management skills (Madsen et al., 2021).

On the other hand, the high dropout rate among volunteers has hindered students from experiencing the benefits of the environmental volunteering program. Studies (Winch et al., 2020, Gulliver et al., 2022, and Madsen et al., 2021) asserted that motivation is one of the factors contributing to sustainable environmental volunteerism engagement. Studies found that environmental volunteers' motivation plays a significant role in ensuring the success of conservation projects and empowering volunteers in environmental conservation (Madsen et al., 2021). However, few studies have focused on the different motivations for volunteering (Madsen et al., 2021).

Factors contributing to the motivation in environmental volunteerism include the opportunity for personal development including as improving knowledge, skills, job preparation, and reducing negative emotions. Some individuals also involved in environmental volunteerism to help conserve the environment (Strzelecka et al., 2017). Madsen et al. (2021) also reported that religious factors such as moral values are a major motivational factor for volunteerism). Social norms also contribute to environmental volunteering participation, reflecting the importance of support from other people in their close circle (Madsen et al., 2021). In this regard, a volunteer will be involved in environmental volunteering if the values align with their perceived benefits of environmental volunteering program. There are four environmental values that are aligned with the values of volunteering, i.e., egoistic, biospheric, altruistic, and religious values (Stern et al., 2000; Schwartz, 2012).

Students' backgrounds, such as age, the field of study, and gender, influence environmental volunteering behaviour. Studies show the younger generation is more motivated for education and a career (Madsen et al., 2021), while older generations are motivated by health benefits (Gagliardi et al., 2020; Chen et al., 2020; Hsiao et al., 2020). Meanwhile, students of pure science courses, such as Biology, are more involved in environmental volunteering than students in social sciences who are usually involved in social volunteering (Heyl et al., 2013). Gender may influence volunteering, but the results are ambiguous (Madsen et al., 2021). Some studies show that females volunteer slightly more than males globally. Females generally emphasize various motivational factors, while males see volunteering as

completing a task (Madsen et al., 2021). Therefore, this study examined the values orientation and intention to sustain environmental volunteering participation from the students' perspectives. In addition, this study analyses the differences in levels of values orientation and intention to sustain environmental volunteering based on gender.

2. Literature Review

Environmental education aims to increase students' environmental knowledge, cultivate positive attitudes, build skills, change behaviour and increase motivation to engage in environmental preservation activities (Palmer, 1998). Environmental education is offered across the curriculum at the primary and secondary school level, while at the university level, most environmental programs are offered as a single course depending on the field of study. As environmental volunteering can be used as a hands-on activity in environmental education, it should be promoted among university students who can act as agents of change through environmental conservation leadership. Sumarmi et al. (2022) found that environmental volunteering can change attitude toward environment preservation and improve soft skills among university students. However, the low dropouts among environmental volunteers have created a burden in recruiting and training new environmental volunteers.

The extend of one's involvement in environmental volunteerism can be predicted through the theory of planned behaviour (TPB) (Ajzen et al., 2005). This theory states that behaviour is cultivated consciously, and intention is the best predictor of behaviour. In other words, an individual will perform a behaviour if he intends to do so. TPB asserts that intention is influenced by attitudes towards a behaviour, perceived control of behaviour, subjective norms, or the influence of people close to us. An individual's attitude is linked to environmental values. Furthermore, studies found that compared to environmental values, behaviour al values, or specifically environmental volunteerism, is a better predictor of environmental volunteerism engagement. Thus, as emphasized in the Values-Beliefs-Norms theory (Stern, 2000), values is first factor that influences one's behaviour towards the environment.

There are four (4) environmental-related values i.e., egoistic, biospheric, altruistic, and religious values. Egoistic values focus on self-oriented goals such as social power, wealth, and personal success. Meanwhile, altruistic values focus on other people, such as family members, friends, and humanity, while biospheric values focus on the well-being of all living things, including plants and animals (Schwartz, 2012; Stern, 2000). Religious values are related to Islamic teachings related to our duty in conserving the environment as caliphs in this world (Mangunjaya, 2010; Crowe, 2013; Okun et al., 2017; Chowdhury, 2018). In this regard, there is yet sufficient study examining the role of religious-related values in predicting behaviour towards environmental volunteering (Norshariani et al., 2021).

Winch et al. (2020) reviewed 1032 articles to identify the factors that drive a person to engage in environmental volunteering. The findings showed that motivation influences individual's participation in environmental volunteering. Among the motivations are interest in physical activities and skills application. On the other hand, social factors have less

significant influence on environmental volunteering participation. This suggests that egoistic values have more influence on engagement as an environmental volunteer than altruistic values which are linked to social factors. Studies also showed that biospheric and altruistic values influence involvement in environmental volunteerism in the long run. However, egoistic values affect short-term involvement in volunteerism or known as episodic volunteerism (Madsen et al., 2021).

Involvement as an environmental volunteer is also influenced by gender. However, a study by Ongon et al. (2021) involving undergraduates in Thailand found that no significant difference between male and female students' attitude towards environmental volunteerism. On contrary, studies by Knauft (1992) and Salas (2008) found that women have more positive attitude towards engaging in volunteering activities than men. According to Larson et al. (2020), female volunteers are motivated by social interaction, commitment, and traditions, while physical factors and strength are two factors influencing men to engage in volunteering activities (Xiao & Hong, 2018).

3. Method

3.1 Context of the Study

This quantitative study aimed to examine the values orientation and intention to sustain in environmental volunteering among university students ($n = 356$). The data were obtained from university students who had experience of environmental volunteering in the Klang Valley. The types of environmental volunteering activities in which the participants had been involved were diverse and mostly related to conservation, education and sustainable living.

3.2 Respondents of the Study

Purposive sampling was used in this study to identify the samples of the study. This method ensured that the participants could provide information to answer the research questions. The participants were university students, who had been involved in environmental volunteering activities. The respondents involved in this study were representatives of environmental volunteers. A total of 356 respondents participated in this study; of which 90 were male (25.3%) and 266 were female (74.7%).

3.3 Data Collection Procedure

A questionnaire was distributed to 356 student environmental volunteers using google forms and with instructions from a research assistant. The questionnaire instrument was developed by the researcher and adapted from previous research. The Cronbach's alpha obtained was high so the study instrument was considered suitable for use in this study. The Cronbach's alpha values are presented in Table 1.

Table 1. Cronbach's Alpha Values for Values Orientation and Intention to Sustain in Environmental Volunteering

No	Construct	Cronbach's Alpha Value
1	Values orientation	.964
1.1	Egoistic	.894
1.2	Biospheric	.937
1.3	Altruistic	.917
1.4	Religious	.970
2	Intention	.960

3.4 Instruments Development

Table 2. Constructs and Subconstructs of the Questionnaire

No	Constructs	Subconstructs	Examples of items
1	Values orientations	Egoistic	I am involved in environmental volunteering activities as I seek experience in the field of environmental conservation
		Biospheric	I am involved in environmental volunteering activities because of love for the environment
		Altruistic	I am involved in environmental volunteering activities because I want to ensure that future generations can enjoy a clean environment
		Religious	I was involved in environmental volunteering activities because it was driven by religion that taught me to carry out my trust as a caliph on earth by conserving the environment
2	Intention to sustain in environmental volunteering	-	I will continue to engage in environmental volunteer activities even without the rewards given

A structured questionnaire was developed. Forty-five questionnaires were discarded because they were incomplete or completed by non-students, resulting in a valid sample of 356 individuals. The questionnaire was divided into three (3) sections. The first section comprised the demography of the respondents, such as their gender, status, name of university, field of education, level of education, name of environmental volunteering program and duration of being involved in an environmental volunteering program. However, only gender was analysed for this paper. The second section referred to values orientation (20 items) that

consisted of egoistic, biospheric, altruistic and religious values. The third section referred to the intention to sustain in environmental volunteering (8 items). The second and third sections were measured using self-report items on a 10-point Likert scale, depending on whether participants agreed or disagreed with each statement. The scales for these factors were developed after considering the findings from interviews with ten environmental volunteer study participants and adapting instruments used in previous relevant literature. Table 2 shows examples of the items used in the instrument in this research.

3.5 Data Analysis Procedure

Data analysis was performed using SPSS software. Two types of data analysis were used for this study: descriptive and inferential analysis. Descriptive analysis involved mean and standard deviation while inferential analysis involved the t-test. To measure the level of environmental values orientation and the intention to sustain in environmental volunteering, mean interpretation by Nunnally (1997) was referred to, as shown in Table 3. In addition, the t-test was employed to compare values orientation and intention to sustain in environmental volunteering based on gender.

Table 3. Interpretation of Mean Scores for Values orientation and Intention to Sustain in Environmental Volunteering

Mean Score	Interpretation of Mean Score
1.00 - 2.00	Low
2.01 - 3.00	Moderately Low
3.01 - 4.00	Moderately High
4.01 - 5.00	High

Source: Nunnally (1997)

4. Results

4.1 Level of Values orientation and Intention to Sustain in Environmental Volunteering

Table 4. Mean and Standard Deviation for Values Orientation and Intention to Sustain in Environmental Volunteering

Constructs/Subconstructs	Mean	Standard Deviation	Mean Interpretation
Total Values orientation	4.593	.427	High
Egoistic	4.503	.516	High
Biospheric	4.611	.464	High
Altruistic	4.618	.470	High
Religious	4.640	.502	High
Total Intention to sustain in Environmental Volunteering	4.431	.596	High

The overall mean scores for values orientation and the intention to sustain in environmental volunteering is shown in Table 4. Based on Table 4, the level of values orientation that the university students had was examined based on the four subconstructs: egoistic, biospheric, altruistic and religious values. Overall, the level of values orientation was high. Based on the values orientation subconstructs, all the values orientation was at high level. The intention to sustain in environmental volunteering also was at a high level.

4.2 Comparison of Values orientation and Intention to sustain in Environmental Volunteering Based on Gender

i. Comparison of Values orientation Based on Gender

Table 5 shows that overall, values orientation had no significant differences based on gender ($t = -1.715, p = .089 > .05$). However, there was significant differences in the biospheric values found based on gender ($t = -2.265, p = .024 > .05$). Based on the mean scores, female volunteers showed higher biospheric values (mean = 4.643, sd = .453) compared to male volunteers (mean = 4.516, sd = .485).

Table 5. t-test for Comparison of Values Orientation Based on Gender

Construct	Gender	No.	Mean	Standard Deviation	t Value	Significance Level	Effect Size
Egoistic	Male	90	4.444	.578	-1.160	.248	.147
	Female	266	4.523	.493			
Biospheric	Male	90	4.516	.485	-2.265	.024*	.271
	Female	266	4.643	.453			
Altruistic	Male	90	4.548	.520	-1.642	.101	.193
	Female	266	4.642	.451			
Religious	Male	90	4.571	.549	-1.520	.130	.180
	Female	266	4.664	.484			
Values orientation	Male	90	4.520	.491	-1.715	.089	.218
	Female	266	4.618	.402			

ii. Comparison of Intention to sustain in Environmental Volunteering Based on Gender

Table 6 showed there were no significant differences in intention to sustain in environmental volunteering based on gender ($t = -1.870, p = .064 > .05$). However, based on the mean scores, female volunteers showed higher intention to sustain in environmental volunteering (mean = 4.471, sd = .531) compared to male volunteers (mean = 4.312, sd = .745).

Table 6. t-test for Comparison of Intention to sustain in Environmental Volunteering Based on Gender

Construct	Gender	No.	Mean	Standard Deviation	t-Value	Significance Level	Effect Size
Intention	Male	90	4.312	.745	-1.870	0.064	.246
	Female	266	4.471	.531			

5. Discussion

Value is the first factor in predicting environmental behaviour. Similarly, involvement in environmental volunteerism is influenced by egoistic, altruistic, biospheric, and religious values. The study's findings indicate that the respondents' values are all at a high level. It was observed that the religious value is the most significant factors encouraging university students to engage in environmental volunteerism. This is in line with the study's demography where all students involved are Muslims. In Islam, environmental volunteering is highly demanded will be rewarded by Allah (Mangunjaya, 2010) as the Islamic holy book of the Quran and the Prophet's Hadith have dictated Muslims to care for the environment.

Biospheric and altruistic values also influence the behaviour of university students towards participating in environmental volunteering. The students have been exposed to environmental education since primary schools and it has made them aware of the importance of preserving the environment and protecting the rights of others, including future generations. Furthermore, egoistic values linked to personal needs such as interest, gaining experience in environmental management, increasing knowledge, and trying something new, have also affected environmental volunteering participation. One's surroundings, including friends' encouragement also influence volunteer engagement. In this regard, individuals may be motivated to volunteer due to the opportunity of spending time with their friends (Madsen et al., 2021).

The study also observed differences in the value of environmental volunteerism based on gender. Female students demonstrate higher biospheric values than male students. This suggests female students show higher concern of environmental issues compared to male students. At the same time, motivations linked to biospheric values motivate environmental volunteers to engage in these activities over a longer period while episodic motivations are related to short-term individual motivation (Madsen et al., 2021). Past studies reported diverse findings. These include reports that women spend more time volunteering than men and no difference in other aspect. Other studies found that females generally volunteer more when they are young, while males volunteer will start volunteering when they become older (Madsen et al., 2021).

Overall, the university students involved demonstrate high value and desire to continue being involved in environmental volunteerism. Thus, good support from the university's management and the surroundings is needed to sustain their engagement. The university can collaborate with environmental NGOs to increase students' involvement in volunteerism.

This can be done through programs that integrate environmental volunteering and learning based on hands-on and experiential learning. In this light, environmental volunteering programs have been proven to improve attitude towards environmental preservation, develop soft skills among university students (Sumarmi et al., 2022) and foster leadership skills (Gulliver et al., 2022).

6. Conclusion

Overall, university students have a high value and intention to be involved in environmental volunteering. The difference in biospheric values based on gender indicates a difference in awareness towards environmental issues. On the other hand, male and female students have shown the same level of intention to engage in environmental volunteering programs. Since this study examines motivation based on the value of environmental volunteerism, it is proposed that the study extends motivation based on the desire for social interactions or to fulfil economic, health, physical, or cultural needs (Madsen et al., 2021).

This study provides new insights into environmental volunteers' motivation to continue being involved in volunteering activities based on values orientation. Increased understanding of the factors influencing environmental volunteers' involvement and retention may assist non-profit organizations in achieving positive environmental outcomes and improving the general welfare of their volunteers (Gulliver et al., 2022). University students play a crucial role in inspiring others to participate in environmental volunteering. Hence, this study provides information for organizers of environmental volunteer programs and university management on how to retain university students' involvement as environmental volunteers. University students should be trained as a leader in environmental volunteering. Therefore, organizers should provide the volunteering leadership training opportunities. Retainment of environmental volunteers relies on their team leaders. In addition, students involved in environmental volunteerism should be equipped with sufficient scientific knowledge so that they can contribute to environmental conservation in line with sustainable development goals (SDGs).

Acknowledgments

This research was funded by FRGS/1/2018/SSI12/UKM/03/1, Ministry of Education and Universiti Kebangsaan Malaysia.

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975-996.

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