Journal of Management and Business Insight
P-ISSN: 3031-0261 | E-ISSN: 3031-0253
Volume 3, Number 1, May 2025, Page 38-46

The antecedents of pro-environmental behavior: Environmental commitment, environmental consciousness, green lifestyle, and green self-efficacy

Nabila Nadlif Nidhana[1*], Rikha Muftia Khoirunnisa[2], Suryana Hendrawan[3]

[1,2,3] Universitas Ahmad Dahlan, Yogyakarta, Indonesia
[*] Email Correspondent Author: nabila2100011266@webmail.uad.ac.id

ARTICLE INFO

Article History
Received: 08-06-2025
Revised: 24-06-2025
Accepted: 25-06-2025

Keywords
Environmental Commitment;
Environmental Consciousness;
Green Lifestyle;
Green Self Efficacy;
Pro-environmental behavior.

Paper Type: Research paper

ABSTRACT

Purpose-Environmental issues are currently a serious problem faced by all sectors of society. Green lifestyle changes need to be encouraged from an early age to promote pro-environmental behavior. This study examines the influence of environmental commitment, environmental awareness, green lifestyle, and green self-confidence on pro-environmental behavior.

Methodology-This study used a quantitative approach with a survey method through questionnaires. The research data was obtained from 320 respondents selected using convenience sampling techniques. Data analysis was carried out through validity and reliability tests and hypothesis testing using SPSS version 20.

Findings-The results of the study indicate that environmental commitment, green lifestyle, and green self-efficacy have a positive influence on pro-environmental behavior. However, environmental awareness does not significantly influence pro-environmental behavior, suggesting that awareness alone cannot be transformed into actionable behavior without other reinforcing factors.

Research Limitations-The scope of this study focuses on students of public vocational high schools in Yogyakarta, Indonesia. Therefore, the results cannot represent other school levels and regions outside Yogyakarta.

Novelty-This study provides a deeper understanding of the relationship between pro-environmental behavior and its influencing factors. These findings are expected to offer practical recommendations for policymakers and practitioners to improve pro-environmental behavior.

1. Introduction

Environmental issues have become a global concern because of their negative effects on climate change, pollution, and ecosystem damage (Hasnat et al., 2018). The excessive exploitation of natural resources has led to increasing pollution, making environmental awareness important for preserving the environment (Goswami, 2024). The environment plays an important role in human life and ecosystems, and its quality is determined by human behavior.

As formal educational institutions, schools play a role in developing students' knowledge and character as well as preparing young people to face various social issues, such as environmental sustainability. However, schools can also contribute to environmental damage due to student behavior, such as the use of plastic and renewable energy. Therefore, efforts are needed to shape pro-environmental behaviors among students (Romano et al., 2024). State Vocational High Schools in Yogyakarta implement pro-environmental behavior through the “no waste, no trash” program to instill a sense of responsibility in students to manage waste. This program encourages students to bring cloth bags to collect waste independently, and submit them to a waste bank to ensure that the school environment remains clean.

To reduce environmental problems, pro-environmental behaviors need to be cultivated. Pro-environmental behavior is an individual's awareness of minimizing environmental damage through environmentally friendly actions (Kousar et al., 2022). Pro-environmental behavior can be realized through adequate environmental knowledge, enabling individuals to act with concern for their environment. Various factors influence pro-environmental behavior. This study analyzed the factors influencing pro-environmental behavior, including environmental commitment, environmental awareness, environmentally friendly lifestyle, and green self-efficacy.

Commitment to the environment positively influences pro-environmental behavior as it reflects an individual's responsibility to contribute to environmental conservation (Yu et al., 2019). Environmental consciousness is important in addressing environmental issues and encouraging actions that support sustainability. A green lifestyle refers to responsible actions toward nature, and is important for increasing awareness and using eco-friendly products. Green self-efficacy is an individual's belief in their ability to take actions that improve environmental quality and positively impact pro-environmental behavior (Yusliza et al., 2020).

2. Literature Review and Hypothesis Development

Xie and Wang (2024) state that environmental commitment is a commitment made by individuals to protect the environment, taking into account its relationship with the environment. Environmental commitment is an effort to preserve the environment by reducing waste, conserving resources, using new ecological products, and supporting organizational strategies that focus on environmental concerns (Yu et al., 2019). Individuals with firm environmental commitments make sacrifices to improve their environmental quality (Rahman & Reynolds, 2016). This study assesses whether environmental commitment can strengthen pro-environmental behavior in the context of students, such as saving energy, reducing waste, or participating in environmental conservation activities. The higher the environmental commitment, the greater the likelihood of engaging in actions that support sustainable pro-environmental behavior. Afsar and Umrani (2020), Yusliza et al. (2020), and Foster et al. (2022) have proven that there is a positive influence between environmental commitment and pro-environmental behavior. **H_1: Environmental Commitment Has a Positive Effect on Pro-Environmental Behavior.**

According to Fu et al. (2020), environmental consciousness is an individual's ability to recognize the relationship between human activities and the surrounding environment to create a safe and healthy environment. Individuals with high environmental consciousness tend to be more active in preserving the environment by reducing single-use plastics and separating waste for recycling (Afsar & Umrani, 2020). In the context of this study, students with high environmental consciousness tended to develop pro-environmental behaviors. The higher an individual's environmental consciousness, the greater their tendency to engage in activities that protect the environment. Shah et al. (2023) and Mkumbachi et al. (2020) demonstrated a positive influence between environmental consciousness and pro-environmental behavior. This means that, with high environmental consciousness, individuals tend to be more motivated to engage in pro-environmental behavior. **H_2: Environmental Consciousness Has a Positive Effect on Pro-Environmental Behavior.**

A green lifestyle is associated with environmental preservation. In other words, individuals are expected to balance their daily needs with environmental sustainability (Chafi et al., 2022).

Shutaleva et al. (2022) state that young people tend to change their lifestyle to green to minimize environmental damage. This is supported by previous research by Bakar et al. (2020) and Foster et al. (2022), who found a positive relationship between green lifestyles and pro-environmental behavior. This means that individuals with a highly green lifestyle tend to be more motivated to engage in pro-environmental behavior. **H_3: A Green Lifestyle Has a Positive Effect on Pro-Environmental Behavior.**

Green self-efficacy is an individual's belief in their ability to take action to improve environmental quality (Yusliza et al., 2020). Strong green self-efficacy leads to perceptions of maintaining a sustainable environment (Schutte & Bhullar, 2017). Jugert et al. (2016) state that green self-efficacy can increase firm beliefs about environmental concerns and lead to new abilities that have never been obtained. This is supported by the findings of Yusliza et al. (2021) and Musaddiq et al. (2024), who found a positive relationship between green self-efficacy and pro-environmental behavior. This means that individuals with high levels of self-efficacy are more motivated to engage in pro-environmental behaviors. **H_4: Green Self-Efficacy Has a Positive Effect on Pro-Environmental Behavior.**

Figure 1 illustrates the research model framework and shows the factors that influence pro-environmental performance. These factors include environmental commitment, environmental consciousness, green lifestyle, and green self-efficacy, all of which are thought to positively affect pro-environmental performance.

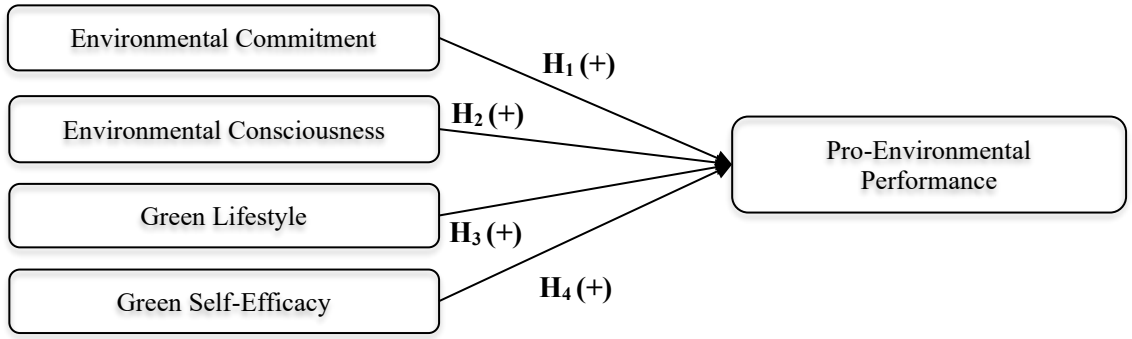

Figure 1. Research Model

3. Research Methodology

This study used a quantitative approach with a survey method to analyze the influence of environmental commitment, environmental consciousness, green lifestyle, and green self-efficacy on pro-environmental behavior among vocational high school students. This study examined students at the State Vocational High School in Yogyakarta, with a sample size of 357 students selected through non-probability sampling using convenience sampling, specifically students in grade XI, who were involved in the school's environmental program. Data were collected using questionnaires. Each variable was measured using indicators that were assessed on a 5-point Likert scale. The environmental commitment variable consisted of eight items adapted from Yusliza et al. (2020). The environmental consciousness variable consisted of five items adapted from Yusliza et al. (2020). The green lifestyle variable consisted of eight items adapted from Pickett-Baker and Ozaki (2008). The green self-efficacy variable consists of seven items adapted from Chen et al. (2014). Finally, the pro-environmental behavior variable consisted of 14 items adapted from Yusliza et al. (2020). Data analysis was conducted using SPSS version 20 analysis tools through several stages. First, validity testing was performed using Confirmatory Factor Analysis (CFA) with factor loadings > 0.6. Second, reliability testing was performed using Cronbach's alpha for each variable, with a criterion value of > 0.7. Hypothesis testing was conducted at a significance level of 0.05. The decision criteria were adapted from those of Ghozali (2018).

4. Result and Discussion

Characteristics of Respondents

Table 1 presents respondents' characteristics. Most respondents were male (270 respondents, 75%), and the rest were female (87 respondents, 25%). The respondents were dominated by those aged 17 years, with 247 respondents (69.1%), and the fewest were those aged 15 years, with two respondents (0.56%). In addition to gender and age, respondents' characteristics can be categorized based on class and vocational programs. The respondents in this study were students from the State Vocational High School in Yogyakarta, Grade XI, across all vocational programs.

Table 1. Characteristics of Respondents

Classification	Description	Frequency	
		Total	Percentage
Gender	Male	270	75 %
	Female	87	25 %
Age	15 years old	2	0.56 %
	16 years old	90	25.2 %
	17 years old	247	69.1 %
	18 years old	15	4.2 %
	19 years old	3	0.8 %
Vocational Program	Construction and Housing Engineering	15	4.2 %
	Building Modeling and Information Design	29	8.1 %
	Mechanical Engineering	79	22%
	Welding and Metal Fabrication Engineering	28	7.8 %
	Automotive Engineering	103	28.6 %
	Electrical Engineering	32	7.1 %
	Computer Network and Telecommunication Engineering	14	3.9 %
	Visual Communication Design	21	5.8 %
	Industrial Electrical Engineering	36	10 %

Validity Test

Table 2 shows the loading factor value of each indicator item representing each research variable in the validity test. All indicators in this study were proven valid because they had outer loading values greater than 0.6.

Table 2. Validity Test Result

Indicator	Environmental Commitment	Environmental Consciousness	Green Lifestyle	Green Self Efficacy	Pro-environmental behavior
EC 1	0.824				
EC 2	0.738				
EC 3	0.830				
EC 4	0.775				
EC 5	0.772				
EC 6	0.832				
EC 7	0.823				
EC 8	0.824				
ECC 1		0.840			
ECC 2		0.797			
ECC 3		0.847			
ECC 4		0.825			
ECC 5		0.852			
GLS 1			0.668		
GLS 2			0.742		
GLS 3			0.848		
GLS 4			0.858		

Indicator	Environmental Commitment	Environmental Consciousness	Green Lifestyle	Green Self Efficacy	Pro-environmental behavior
GLS 5			0.845		
GLS 6			0.846		
GLS 7			0.867		
GLS 8			0.824		
GSE 1				0.810	
GSE 2				0.783	
GSE 3				0.864	
GSE 4				0.879	
GSE 5				0.865	
GSE 6				0.863	
GSE 7				0.876	
PEB 1					0.728
PEB 2					0.768
PEB 3					0.781
PEB 4					0.717
PEB 5					0.715
PEB 6					0.820
PEB 7					0.813
PEB 8					0.819
PEB 9					0.742
PEB 10					0.843
PEB 11					0.840
PEB 12					0.841
PEB 13					0.863
PEB 14					0.788

Reliability Test

The reliability test results shown in Table 3 indicate that all research variables are reliable. This can be seen from the Cronbach's alpha value of more than 0.6 for the environmental commitment, environmental consciousness, green lifestyle, green self-efficacy, and pro-environmental behavior variables.

Table 3. Reliability Test Result

Variable	Cronbach's Alpha
Environmental Commitment	0.919
Environmental Consciousness	0.889
Green Lifestyle	0.927
Green Self-Efficacy	0.935
Pro-Environmental Behavior	0.954

Hypothesis Test

Table 4 presents the results of hypothesis testing. Based on these results, several hypotheses were accepted. This is evidenced by the fact that the accepted hypotheses show a positive direction, and the significance value is less than 0.05. Environmental commitment, green lifestyle, and green self-efficacy positively affected pro-environmental behavior. Environmental consciousness has been proven to have no effect, because it has a significance value greater than 0.05.

Table 4. Hypothesis Test Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Environmental Commitment → Pro-Environmental Behavior	0.161	0.034	0.151	4.720	0.000
Environmental consciousness → Pro-Environmental Behavior	0.007	0.045	0.007	0.161	0.872
Green Lifestyle → Pro-Environmental Behavior	0.404	0.045	0.436	8.960	0.000
Green Self-Efficacy → Pro-Environmental Behavior	0.370	0.046	0.390	7.964	0.000

Discussion

The Influence of Environmental Commitment on Pro-Environmental Behavior

The results of the first hypothesis test prove that environmental commitment positively affects pro-environmental behavior. This means that the higher a person's commitment to the environment, the more likely they are to exhibit environmentally conscious behavior. Environmental commitment includes willingness to engage in activities focused on environmental conservation (Ansari et al., 2021). Environmental commitment can be increased through various efforts, one of which is providing education and practical activities to protect the environment (Wang et al., 2018). If commitment to protecting the environment is maintained, everyone will inevitably become more concerned and responsible for the environmental conditions. The findings of this study support previous research conducted by Afsar and Umrani (2020) and Foster et al. (2022), which stated that there is a positive influence between environmental commitment and pro-environmental behavior.

The Influence of Environmental Consciousness on Pro-Environmental Behavior

The results of the second hypothesis test show that environmental consciousness has a positive but insignificant effect on pro-environmental behavior. This indicates that even though someone knows the importance of caring about environmental issues, it does not always translate into actions that support environmental awareness (Tam & Chan, 2017). Many individuals still feel compelled when asked to take action to protect the environment. This may be due to various factors, including a lack of motivation and self-confidence. Although environmental consciousness is critical, many other supporting factors must be considered to encourage individuals to take environmental protection measures more actively. The results of this study align with those of Yusliza et al. (2021), who stated that there was no significant positive influence between environmental consciousness and pro-environmental behavior.

The Influence of Green Lifestyle on Pro-Environmental Behavior

The third test result proves that a green lifestyle positively influences pro-environmental behavior. By adopting a green lifestyle, individuals change their lifestyle and consumption patterns to become more environmentally conscious (Săplăcan & Márton, 2019). Lifestyle changes begin with small things such as reducing waste and switching to environmentally friendly products. A green lifestyle, if consistently practiced, minimizes environmental damage. The results of this study support the findings of Welsch (2020) and Foster et al. (2022), who stated that there is a positive relationship between a green lifestyle and pro-environmental behavior. This means that with lifestyle changes, students are more likely to engage in pro-environmental behaviors.

The Influence of Green Self-Efficacy on Pro-Environmental Behavior

The results of the fourth hypothesis test prove that green self-efficacy positively influences pro-environmental behavior. Pro-environmental behavior can begin with fostering self-confidence in each individual. When individuals believe that efforts to protect the environment

positively impact it, they will take various actions to protect it without coercion. Individuals with strong beliefs will be more creative and innovative in their efforts to protect the environment. The results of this study support the findings of Faraz et al. (2021) and Musaddiq et al. (2024), who stated that there is a positive influence between green self-efficacy and pro-environmental behavior.

5. Conclusion

This study proves that environmental commitment, green lifestyles, and green self-efficacy positively affect pro-environmental behavior. However, environmental consciousness did not have a significant effect on pro-environmental behavior. This study has several limitations, such as online data collection, which allows respondents to not meet the criteria or fill out the questionnaire more than once. In addition, the research sample focuses on 11th-grade students; therefore, it does not represent all students' general opinions and does not cover a wider area. These limitations undoubtedly affected the accuracy of the results. Based on the findings of this study, it is recommended that every school begin to emphasize the formation of environmental commitment, environmental awareness, green lifestyles, and green self-efficacy through concrete programs, such as education, hands-on practice, and the cultivation of environmentally friendly behaviors. Furthermore, future research should explore other variables that may influence pro-environmental behavior and use more controlled data collection methods to enhance the validity of the results.

REFERENCES

Afsar, B., & Umrani, W. A. (2020). Corporate social responsibility and pro-environmental behavior at workplace: The role of moral reflectiveness, coworker advocacy, and environmental commitment. *Corporate Social Responsibility and Environmental Management*, *27*(1). https://doi.org/10.1002/csr.1777

Ansari, N. Y., Farrukh, M., & Raza, A. (2021). Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism. *Corporate Social Responsibility and Environmental Management*, *28*(1). https://doi.org/10.1002/csr.2044

Bakar, A. A., Osman, M. M., & Hitam, M. (2020). Attitudes and pro-environmental behaviours: Determining factor of personality and lifestyle. *Planning Malaysia*, *18*(1). https://doi.org/10.21837/pm.v18i11.704

Chafi, M. B., Hultberg, A., & Yams, N. B. (2022). Post-pandemic office work: Perceived challenges and opportunities for a sustainable work environment. *Sustainability (Switzerland)*, *14*(1). https://doi.org/10.3390/su14010294

Faraz, N. A., Ahmed, F., Ying, M., & Mehmood, S. A. (2021). The interplay of green servant leadership, self-efficacy, and intrinsic motivation in predicting employees' pro-environmental behavior. *Corporate Social Responsibility and Environmental Management*, *28*(4). https://doi.org/10.1002/csr.2115

Foster, B., Muhammad, Z., Yusliza, M. Y., Faezah, J. N., Johansyah, M. D., Yong, J. Y., Ul-Haque, A., Saputra, J., Ramayah, T., & Fawehinmi, O. (2022). Determinants of pro-environmental behaviour in the workplace. *Sustainability (Switzerland)*, *14*(8). https://doi.org/10.3390/su14084420

Fu, L., Sun, Z., Zha, L., Liu, F., He, L., Sun, X., & Jing, X. (2020). Environmental consciousness and pro-environmental behavior within China's road freight transportation industry: The moderating role of perceived policy effectiveness. *Journal of Cleaner Production*, *252*. https://doi.org/10.1016/j.jclepro.2019.119796

Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*. Universitas Diponegoro.

Goswami, D. (2024). Addressing the challenge of overexploitation of natural resources in pursuit of development. *Sprin Journal of Arts, Humanities and Social Sciences*, *3*(3), 65–67. https://doi.org/10.55559/sjahss.v3i3.276

Hasnat, G. N. T., Kabir, M. A., & Hossain, M. A. (2018). Major environmental issues and problems of South Asia, particularly Bangladesh. In *Handbook of Environmental Materials Management*. https://doi.org/10.1007/978-3-319-58538-3_7-1

Jugert, P., Greenaway, K. H., Barth, M., Büchner, R., Eisentraut, S., & Fritsche, I. (2016). Collective efficacy increases pro-environmental intentions through increasing self-efficacy. *Journal of Environmental Psychology*, *48*. https://doi.org/10.1016/j.jenvp.2016.08.003

Kousar, S., Afzal, M., Ahmed, F., & Bojnec, Š. (2022). Environmental awareness and air quality: The mediating role of environmental protective behaviors. *Sustainability (Switzerland)*, *14*(6). https://doi.org/10.3390/su14063138

Mkumbachi, R. L., Astina, I. K., & Handoyo, B. (2020). Environmental awareness and pro-environmental behavior: A case of university students in Malang city. *Jurnal Pendidikan Geografi*, *25*(2). https://doi.org/10.17977/um017v25i22020p161

Musaddiq, R., Ullah, S., & Usman, M. (2024). Effect of green HRM and green self-efficacy on pro-environment behavior-Mediating role of environmental commitment. *Annals of Social Sciences and Perspective*, *5*(1), 115–125. https://doi.org/10.52700/assap.v5i1.333

Pickett-Baker, J., & Ozaki, R. (2008). Pro-environmental products: Marketing influence on consumer purchase decision. *Journal of Consumer Marketing, 25*(5). https://doi.org/10.1108/07363760810890516

Rahman, I., & Reynolds, D. (2016). Predicting green hotel behavioral intentions using a theory of environmental commitment and sacrifice for the environment. *International Journal of Hospitality Management*, *52*. https://doi.org/10.1016/j.ijhm.2015.09.007

Romano, L., Russo, C., Gladwin, T. E., & Panno, A. (2024). Adolescents and young adults' participation in pro-environmental movements: A systematic review. *Journal of Genetic Psychology, 185*(5). https://doi.org/10.1080/00221325.2024.2316804

Săplăcan, Z., & Márton, B. (2019). Determinants of adopting a zero waste consumer lifestyle. *Regional and Business Studies*, *11*(2). https://doi.org/10.33568/rbs.2410

Schutte, N. S., & Bhullar, N. (2017). Approaching environmental sustainability: Perceptions of self-efficacy and changeability. *Journal of Psychology: Interdisciplinary and Applied*, *151*(3). https://doi.org/10.1080/00223980.2017.1289144

Shah, S. H. A., Al-Ghazali, B. M., Bhatti, S., Aman, N., Fahlevi, M., Aljuaid, M., & Hasan, F. (2023). The impact of perceived CSR on employees' pro-environmental behaviors: The mediating effects of environmental consciousness and environmental commitment. *Sustainability (Switzerland)*, *15*(5). https://doi.org/10.3390/su15054350

Shutaleva, A., Martyushev, N., Nikonova, Z., Savchenko, I., Abramova, S., Lubimova, V., & Novgorodtseva, A. (2022). Environmental behavior of youth and sustainable development. *Sustainability (Switzerland)*, *14*(1). https://doi.org/10.3390/su14010250

Tam, K. P., & Chan, H. W. (2017). Environmental concern has a weaker association with pro-environmental behavior in some societies than others: A cross-cultural psychology perspective. *Journal of Environmental Psychology*, *53*. https://doi.org/10.1016/j.jenvp.2017.09.001

Wang, S., Li, J., & Zhao, D. (2018). Institutional pressures and environmental management practices: The moderating effects of environmental commitment and resource availability. *Business Strategy and the Environment*, *27*(1). https://doi.org/10.1002/bse.1983

Welsch, H. (2020). Happiness and green lifestyle. In *Handbook on Wellbeing, Happiness and The Environment* (pp. 349–366). Edward Elgar Publishing. https://doi.org/10.4337/9781788119344.00027

Xie, X., & Wang, Z. (2024). The impact of place attachment on the environmentally responsible behavior of residents in National Park gateway communities and the mediating effect of environmental commitment: A case of China National Park. *Frontiers in Psychology*, *15*. https://doi.org/10.3389/fpsyg.2024.1386337

Yu, T. K., Lin, F. Y., Kao, K. Y., & Yu, T. Y. (2019). Encouraging environmental commitment to sustainability: An empirical study of environmental connectedness theory to undergraduate students. *Sustainability (Switzerland)*, *11*(2). https://doi.org/10.3390/su11020342

Yusliza, M. Y., Amirudin, A., Rahadi, R. A., Athirah, N. A. N. S., Ramayah, T., Muhammad, Z., Dal Mas, F., Massaro, M., Saputra, J., & Mokhlis, S. (2020). An investigation of pro-environmental behaviour and sustainable development in Malaysia. *Sustainability (Switzerland)*, *12*(17). https://doi.org/10.3390/su12177083

Yusliza, M. Y., Faezah, J. N., Mat, N. H. N., Saputra, J., Muhammad, Z., Muhamad, A. S., & Ramayah, T. (2021). Modelling pro-environmental behaviour in the workplace: A preliminary study. In *Proceedings of the International Conference on Industrial Engineering and Operations Management*. https://doi.org/10.46254/an11.20210711