

THE EFFECTIVENESS OF UNDERSTANDING ISLAMIC VALUES ON ENVIRONMENTAL AWARENESS AND BEHAVIOR OF GEN Z IN BANDAR LAMPUNG

Mulyadi¹, Tontowi Jauhari², Adam Hafidz Al Fajar³

¹²Univesitas Islam Negeri Raden Intan Lampung; Indonesia

³Univesitas Islam Negeri Sunan Kalijaga Yogyakarta; Indonesia

Correspondence email; mulyadi@radenintan.ac.id

Submitted: 17/08/2024

Revised: 25/10/2024

Accepted: 19/12/2024

Published: 03/02/2025

Abstract

This study aims to measure the effectiveness of understanding Islamic values in relation to the environmental awareness and behavior of Generation Z in Bandar Lampung. Values such as *tauhid*, *khalifah*, *fitrah*, and *mizan* are understood to play an important role in shaping ecological awareness. This research employs a quantitative approach with a correlation method. The study was conducted in Bandar Lampung with a population of Gen Z students (born 1997–2012). Primary data were collected using structured questionnaires. Purposive sampling was used to select 217 respondents based on criteria of age, location, and educational status. This sample is considered representative of analyzing the relationship between Islamic values and environmental awareness. Secondary data were obtained from literature and reports. For data analysis, the following steps were applied: 1) reliability testing using Cronbach's Alpha, 2) descriptive analysis, 3) Pearson correlation, and 4) multiple linear regression to examine the relationship between Islamic values, environmental awareness, and eco-friendly behavior. This study shows that understanding Islamic values has a strong relationship with environmental awareness ($r = 0.861$) and environmental care behavior ($r = 0.546$). Overall, these two variables explained 74.1% of the variance in environmental caring behavior, confirming the importance of Islamic education in raising ecological awareness.

Keywords

Bandar Lampung, Environmental Awareness, Islamic Values, Gen Z Behavior.



© 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY NC) license (<https://creativecommons.org/licenses/by-nc/4.0/>).

INTRODUCTION

Currently, a hotly discussed issue is the link between understanding religious values, especially Islam, and environmental awareness among young people, including Gen Z (Hupid et al., 2023). This issue is in the spotlight because of the increasing global awareness of the need to protect the environment in the midst of a worsening ecological crisis (Bensaid, 2023). The debate that arises from this issue is often known as eco-religious discourse, which is a discussion on how religion can play a role in environmental conservation. Some people view that religious teachings, including Islam, have great potential to encourage environmentally friendly behavior (Shah & Asghar, 2024). However, critics argue that religion is often irrelevant in a modern context that is more focused on technological solutions (Sahin, 2018). This issue is trending because many studies show that younger generations, especially Gen Z, are more aware of environmental issues than previous generations (Gray et al., 2019; Nikolić et al., 2022). Therefore, this research is here to fill the void of studies on the above issues to analyze the effectiveness of understanding Islamic values on environmental awareness and behavior of Gen Z.

Previous studies have highlighted this issue, such as the research of Abdelzaher et al., (2019) which connects the values of tawhid and khalifah with ecological responsibility, and this concept is called eco-Islam. Other research that can be referred to is a study by Zemo & Nigus (2021) which analyses the relationship between religion and pro-environmental behavior in the context of young people. In comparison, the study of Zabidi et al., (2021) which discusses the importance of integrating Islamic values into environmental policy. According to James Emery White (2017) That addresses the issue of environmental degradation arising from Gen Z's lack of a comprehensive understanding of religion. In this context, this study offers a quantitative approach to understanding how Islamic values can contribute to Gen Z's environmentally friendly behavior, which is one of the main trends in this study. This issue is built on the urgent need to address the worsening environmental crisis. This research aims to explore the extent to which the understanding of Islamic values, such as tawhid, khalifah, fitrah, and mizan, influences the environmental awareness and behavior of Gen Z. With that objective in mind, and this research leads to a quantitative analysis that focuses on the correlation and regression between the key variables, namely Islamic understanding, environmental awareness, and behavior. The main issue raised is whether the understanding of Islamic values can be used as a significant indicator in building environmental awareness among Gen Z.

Research results from Begum et al. (2021) show that the explicit relationship between Islamic values and environmental awareness is still limited. Previous studies tend to be more qualitative or philosophical in nature without mapping quantitative relationships in depth. The researcher felt the need to reframe the theoretical approach to bridge understanding between quantitative research and readers who may not be familiar with this approach. This research formulation seeks to avoid misinterpretation by providing clear data and quantitative analyses that can be universally understood. In the context of this issue, research from Sayem (2020) can be approached through the perspective of eco-theology, popularised by scholars such as John B. Cobb, Jr. and Seyyed Hossein Nasr. In line with this, based on research from Elgammal et al. (2024) also highlights the concepts of environmental stewardship. This research explains the relationship between Islamic values and environmental awareness in the context of Gen Z. Concepts such as tawhid, khalifah, fitrah, and mizan are popular in discussions related to Islamic ecology. Tawhid, for example, is understood as the principle of unity that encompasses human relationships with God, fellow humans, and nature.

This issue can be a positive energy to develop the potential to build environmental awareness based on religious values. Some Islamic countries, such as Malaysia and Turkey, offer alternatives through the integration of religious education and environmental awareness into the school curriculum (Abd Rahman et al., 2020; Çakmaklı et al., 2017). This alternative is known as Islamic environmentalism, which is defined as an approach that integrates Islamic teachings with environmental conservation practices (Jamil, 2022; Sayem, 2021). Factors that influence this concept are theological understanding, government policy, and environmental education (Koehrsen, 2021; Rahman, 2022). As related to this issue, it was successfully mapped by Anna M Gade (2019) Relevantly includes a comparative analysis between this approach in Southeast Asia and the Middle East, which shows the different emphasis on education and policy aspects. In Indonesia, a similar approach is known as eco-pesantren, which combines Islamic education with environmental conservation programs (Nawawi et al., 2024; Subaidi et al., 2023). Reflecting on previous research, most studies on this issue are still descriptive and qualitative. The researcher argues that a quantitative approach is needed to provide a more objective and measurable picture. Indications of this issue show great potential in increasing environmental awareness based on religious values. This study seeks to provide a quantitative analysis that emphasizes the effectiveness of Islamic values in shaping environmentally friendly behavior. The underlying concept is Islamic environmentalism, which is designed to provide a new theoretical basis for understanding the

relationship between religion and the environment.

Based on the development of the background of the problem, the purpose of this study is to measure the effectiveness of understanding Islamic values on environmental awareness and behavior of Gen Z in Bandar Lampung. This research uses a quantitative approach to analyze the relationship between the main variables. Thus, this study is expected to make a significant contribution to academic literature and real practice to increase environmental awareness through a religious approach.

METHOD

This study adopts a quantitative approach to measure the effectiveness of understanding Islamic values on environmental awareness and behavior among Generation Z. Quantitative research, as defined by Borgstede & Scholz (2021) is a systematic approach that uses numerical data to describe, explain, and predict phenomena. In this study, the quantitative approach was chosen because it facilitates an objective and structured measurement of the relationship between key variables, namely the understanding of Islamic values, environmental awareness, and environmentally friendly behavior. This method also enables in-depth data analysis through statistical techniques such as correlation and regression.

The selection of Bandar Lampung as the research location is based on several considerations. Bandar Lampung is one of the major cities in Lampung Province with a significant Gen Z population. This location is also relevant because Bandar Lampung is an urban area facing environmental challenges, such as air and water quality, as well as land management issues. By choosing Bandar Lampung as the research site, the findings are expected to provide a specific depiction of the relationship between Islamic values and environmental awareness in a city facing ecological problems. The data used in this study were collected from primary sources through surveys conducted among Gen Z students living or studying in Bandar Lampung. Primary data were obtained using structured questionnaires. The data sources include: 1) Primary Data: Information collected directly from respondents through questionnaires measuring Islamic values and environmental awareness. 2) Secondary Data: Supporting data from literature, reports, and previous studies related to environmental awareness and Islamic values in Indonesia.

This study focuses on the extent to which understanding Islamic values, such as tauhid, khalifah, fitrah, and mizan, contributes to environmental awareness and behavior among Generation Z in Bandar Lampung. Hypotheses are formulated to be empirically tested, with the main assumption that understanding Islamic values has a positive relationship with environmental awareness and environmentally friendly behavior. The research population consists of Gen Z students living or studying in Bandar Lampung in 2017. The sample was taken using a purposive sampling method to ensure that the sample was relevant to the research objectives. The purpose of using purposive sampling is to ensure that the selected sample has characteristics, knowledge, or experience that are appropriate to the research topic so that it can provide deeper and richer data (Moser & Korstjens, 2018). The criteria used to select the sample include:

1. Age: Respondents must fall into the Gen Z category, i.e., individuals born between 1997 and 2012.
2. Location: Respondents must live or study in Bandar Lampung.
3. Educational Status: Respondents must be active students at the time of the study.

A total of 217 respondents participated in this study. This number is considered sufficient for quantitative statistical analysis based on the opinion of Joseph Hair, Rolph Anderson, and Bill Black (2016) who suggest that the minimum sample size for statistical analysis, particularly regression, should be five to ten times the number of independent variables. Considering several key variables in this study, 217 respondents meet the requirements and provide representative results. The hypotheses tested in this study include:

1. H1: There is a significant positive relationship between understanding Islamic values and environmental awareness among Gen Z students in Bandar Lampung.
2. H2: There is a significant positive relationship between understanding Islamic values and environmentally friendly behavior among Gen Z students in Bandar Lampung.
3. H3: Environmental awareness mediates the relationship between understanding Islamic values and environmentally friendly behavior.

The measurement instrument used is a structured questionnaire designed to measure the understanding of Islamic values as well as environmental awareness and behavior. The questionnaire covers aspects such as tauhid, khalifah, fitrah, and mizan, as well as perceptions of air, water, and land quality, including pro-environmental actions. In conducting data analysis, researchers use several stages, namely: 1) the data processing stage in which at this stage a reliability test is carried out using Cronbach's Alpha in Lee Cronbach's theory to ensure that the data collection

instrument has high internal consistency. 2) the data reduction stage, which is carried out to simplify the raw data so that it is more focused on the main variables to be analyzed. 3) descriptive analysis stage, which is carried out to present the respondent profile and data distribution. The results are presented in the form of tables, graphs, or diagrams to facilitate understanding of the characteristics of the data collected. 4) the correlation analysis stage, which uses the Pearson correlation test to measure the relationship between variables. Correlations were tested between Islamic values and environmental awareness, Islamic values and environmentally friendly behavior, and between environmental awareness and environmentally friendly behavior. Interpretation of the correlation is done based on the r -value, which ranges from 0.00 to 1.00, with the significance of p , which must be smaller than 0.05 to be considered significant. 5) Multiple linear regression analysis stage which was conducted to test the simultaneous contribution of the two independent variables, namely understanding of Islamic values (X_1) and environmental awareness (X_2).

This analysis aims to determine the extent to which the two variables affect the dependent variable, namely environmentally friendly behavior. In this case, the regression equation is $Y = a + b_1X_1 + b_2X_2$, where Y is environmentally friendly behavior, X_1 is understanding of Islamic values, X_2 is environmental awareness, and a is a constant. As for interpreting the statistical results, the correlation coefficient (r) is used to assess the strength of the relationship between the variables tested. In addition, the coefficient of determination (R^2) is used to measure the contribution of the independent variable to the dependent variable. Statistical significance (p -value) is also examined to determine whether the correlation or regression results are statistically significant, with a p -value smaller than 0.05 indicating significance. Conclusions can be drawn based on the results of the analysis to answer the research hypothesis. The primary objective of using this quantitative research method is to address the research problem regarding the effectiveness of understanding Islamic values in building environmental awareness and environmentally friendly behavior among Gen Z students in Bandar Lampung. The findings of this study are expected to provide insights into how Islamic teachings can contribute to sustainable environmental practices.

FINDINGS AND DISCUSSION

Finding

In an effort to respond to the challenges of the global environmental crisis, various approaches have been implemented to increase awareness and environmentally friendly behavior. One approach that is gaining increasing attention is the integration of religious values, including Islam, in shaping ecological awareness and encouraging concrete actions to maintain ecosystem balance. In Islam, concepts such as tawhid (oneness of God), khalifah (human leadership on earth), fitrah (human purity and harmonious relationship with nature), and mizan (balance) provide a strong theological foundation to involve people in environmental conservation as part of worship to God (Gada, 2024). Gen Z, known as a generation that is sensitive to global issues, including climate change, is a strategic group in environmental campaigns. They have grown up in a digital age that gives them wide access to information and the influence of global values. However, the main question that arises is to what extent their understanding of Islamic values contributes to environmental awareness and action. This study aims to answer that question by using a quantitative approach to analyze the relationship between understanding Islamic values, environmental awareness, and environmentally friendly behavior among Gen Z in Bandar Lampung.

Table 1. Relationship Between Islamic Values, Environmental Awareness, and Environmentally Friendly Behavior

No.	Relationship	Correlation Value (r)	Significance (p)	Interpretation
1.	Islamic Values ↔ Environmental Awareness	0.861	0.000	Very strong relationship between Islamic values and environmental awareness.
2.	Islamic Values ↔ Environmentally Friendly Behavior	0.546	0.000	The significant relationship between understanding Islamic values and pro-environmental behavior.
3.	Environmental Awareness ↔ Environmentally Friendly Behavior	0.703	0.000	Environmental awareness directly influences environmentally friendly behavior.

The correlation analysis results indicate a very strong relationship between Islamic values and environmental awareness, with a correlation value of 0.861 and a significance level of 0.000. This finding shows that understanding Islamic values, such as *tawhid*, *khalifah*, *fitrah*, and *mizan*, significantly contributes to increasing awareness of the importance of protecting the environment. These concepts instill a moral responsibility for individuals to maintain balance and preserve ecosystems as an act of devotion to God. Meanwhile, the relationship between Islamic values and environmentally friendly behavior shows a significant correlation of 0.546. Although this relationship is not as strong as with environmental awareness, it demonstrates that understanding Islamic values can motivate pro-environmental behavior. Gen Z individuals who understand these values tend to exhibit behaviors such as recycling, reducing plastic use, and supporting renewable energy. The relationship between environmental awareness and environmentally friendly behavior, with a correlation value of 0.703, suggests that increased environmental awareness directly impacts eco-friendly actions, such as participation in conservation activities, waste management, and the adoption of green technologies. This awareness is driven not only by formal education but also by exposure to global environmental issues, reinforcing the need for concrete actions to protect the environment.

As a continuation of the discussion in Table 1, which shows the close relationship between Islamic values, environmental awareness, and green behavior, Table 2 is here to further explain the contribution of each of these variables. Whereas Table 1 previously illustrated the extent to which these variables are interconnected, Table 2 provides a new perspective on how Islamic values and environmental awareness work together to influence green behavior as follows:

Table 2. Regression Analysis: Contribution of Variables to Environmentally Friendly Behavior

No.	Regression Analysis	Coefficient Value	Interpretation
1.	Constant	40.988	Baseline environmentally friendly behavior without the contribution of other variables.
2.	Understanding Islamic Values (X1)	0.224	Each unit increase in understanding Islamic values improves environmentally friendly behavior by 0.224 units.
3.	Environmental Awareness (X2)	0.297	Each unit increase in environmental awareness improves environmentally friendly behavior by 0.297 units.
4.	Coefficient of Determination (R ²)	0.741	74.1% of the variance in environmentally friendly behavior is explained by Islamic values and environmental awareness.

The regression analysis indicates that understanding Islamic values (X_1) and environmental awareness (X_2) together explain 74.1% of the variance in environmentally friendly behavior (Y), with a coefficient of determination (R^2) of 0.741. The regression equation derived is: $Y = 40.988 + 0.224X_1 + 0.297X_2$, which shows that environmental awareness contributes slightly more (0.297) than understanding Islamic values (0.224) to environmentally friendly behavior. However, both variables significantly contribute. This result underscores that Islamic values provide a strong moral framework, while environmental awareness offers additional motivation to reinforce environmentally friendly actions.

After Table 2 provides an overview of how Islamic values and environmental awareness work together in influencing environmentally friendly behavior, the discussion of Table 3 serves to strengthen the methodological aspects of the research. This is important because the success of the research relies heavily on the accuracy and consistency of the tools used in measuring key variables, such as understanding of Islamic values, environmental awareness, and environmentally friendly behavior. Through the discussion of Table 3, the researcher emphasizes that the research instruments, such as questionnaires, have been tested and have a good level of reliability. Thus, the data obtained reflects the actual reality and can be used as a strong basis for drawing conclusions. This reliability also provides confidence that the research findings are not influenced by inconsistencies or biases in data collection. As for the discussion in Table 3 as follows:

Table 3. Instrument Reliability

No.	Instrument Reliability	Cronbach's Alpha Value	Interpretation
1.	Understanding Islamic Values	> 0.70	The instrument demonstrates good internal consistency.
2.	Environmental Awareness	> 0.70	The instrument demonstrates good internal consistency.
3.	Environmentally Friendly Behavior	> 0.70	The instrument demonstrates good internal consistency.

Reliability testing using Cronbach's Alpha yielded values above 0.70 for all variables, indicating that the instruments used have strong internal consistency. Therefore, the data obtained can be trusted for further analysis and to support the study's conclusions

Discussion

The results of this study show that the relationship between Islamic values and environmental awareness has a very strong correlation (0.861) at a significance level of 0.000. This shows that an understanding of Islamic concepts such as tawhid, khalifah, fitrah, and mizan has a significant impact on increasing awareness of the importance of protecting the environment. From the Islamic perspective, the concept of tawhid emphasizes that God is the creator and maintainer of the universe, so humans have a moral obligation to protect His creation (Bhat, 2018; Kounsar, 2016). Tawhid builds awareness that the environment is a trust from God, which must be managed responsibly (Huda et al., 2019; Le Duc, 2023).

The concept of khalifah places humans as leaders on earth, in charge of maintaining the balance and sustainability of the environment (Hasan, 2022). This is reflected in the high ecological awareness of Gen Z, who have a deep understanding of Islamic values. The value of fitrah, which refers to the sanctity and balance of humans with nature, provides the basis that protecting the environment is part of human nature's needs. Meanwhile, mizan, which means balance, provides an ethical basis for maintaining ecosystem harmony. This context shows that Islamic values are not only spiritual but also practical and relevant to modern environmental issues. Previous research also supports these findings, for example studies showing that religion can be a powerful motivator for environmental action. The integration of these values in daily life helps shape a generation that is more concerned about the environment. Gen Z, exposed to early religious education, has great potential to become agents of change in environmental conservation.

The results of statistical analysis show that the correlation value between Islamic values and environmental awareness (0.861) is highly significant. This value reflects a very strong relationship, indicating that the higher one's understanding of Islamic values, the higher one's awareness of the importance of protecting the environment. This correlation shows the deep connection between Islamic theology and environmental ethics, which is often overlooked in modern academic discourse. In addition, the relationship between Islamic values and environmentally friendly behavior has a correlation of 0.546, which is also significant. Although not as strong as the relationship with environmental awareness, this result suggests that an understanding of Islamic values contributes significantly to individual behavior. Environmentally friendly behaviors, such as recycling and reducing plastic waste, can be enhanced through a deep understanding of religious values. The relationship between environmental awareness and environmentally friendly behavior

also shows a significant correlation of 0.703. This means that awareness of the importance of protecting the environment directly influences concrete actions that support ecosystem sustainability. This finding is relevant to the theory of planned behavior developed by Ajzen (2020), which states that individuals' awareness and attitudes towards certain issues can influence their intentions and behavior. This theory highlights the importance of beliefs and values that underlie individual behavior. These results support the relevance of Islamic values as a strong moral framework in encouraging pro-environmental awareness and behavior. Religious education that emphasizes these concepts can be an effective strategy to increase community involvement in environmental conservation.

Regression analysis in this study shows that understanding Islamic values (X1) and environmental awareness (X2) together explain 74.1% of the variance in environmentally friendly behavior (Y). With the regression equation $Y = 40.988 + 0.224X1 + 0.297X2$, it can be seen that environmental awareness has a greater contribution than understanding Islamic values. However, both variables significantly influence environmentally friendly behavior in Gen Z. This result reflects the synergy between theological values and practical awareness in shaping individual behavior. Islamic values provide the moral framework underpinning actions, while environmental awareness provides additional information and motivation to act. This combination is particularly relevant in the context of Gen Z, who are known to be more sensitive to global issues such as climate change and environmental degradation (Brand et al., 2022; Bryson et al., 2020).

The theory of Environmental Ethics proposed by Holmes Rolston III is also relevant to this discussion. Rolston (2020) argues that moral values derived from religion or philosophy can play an important role in encouraging humans to maintain ecosystem balance. In the context of this study, Islamic values serve as moral guidelines that strengthen individuals' motivation to act responsibly towards the environment. In addition, the coefficient of determination (R Square) of 0.508 indicates that 50.8% of environmentally friendly behavior can be explained by the understanding of Islamic values. This finding indicates that religion plays an important role in shaping individual attitudes and behaviors toward the environment. In this context, religious education that integrates environmental values can be an effective strategy to encourage environmentally friendly behavior in the younger generation. However, 49.2% of environmentally friendly behavior is still influenced by other factors not measured in this study, such as social norms, media influence, or economic conditions. This shows the importance of a multidisciplinary approach in understanding eco-

behavior by considering various interacting factors.

Gen Z has unique characteristics that set it apart from previous generations, including in terms of environmental awareness and behavior. The research shows that this generation has a deep understanding of Islamic values and high environmental awareness, which together drive environmentally friendly behavior. Gen Z tends to be more responsive to global issues, including climate change, as they have grown up in a digital age that facilitates access to information. This generation's environmental awareness is reinforced by formal education and exposure to global environmental issues from an early age. In addition, they are more open to environmentally friendly technologies and innovations, such as the use of renewable energy and technology-based waste management. In the context of Islamic values, Gen Z sees protecting the environment as part of a religious obligation, which provides additional motivation to act (Raquib et al., 2020; Rizal et al., 2023).

According to Wilkinson (2022), in the ecological theory of human development, the interaction between individuals and their environment, including the social and educational environment, is very influential in shaping behavior. According to Mutaqin et al. (2024), the interaction of Gen Z with Islamic values and environmental education is one of the important factors that shape their awareness and behavior. However, while this generation has great potential to be agents of change, challenges remain (Hamadeh, 2022). For example, social pressures and modern lifestyles often conflict with the principles of sustainability. Therefore, it is important to provide adequate support, such as faith-based training programs and environmental promotion involving religious leaders, to strengthen their motivation and involvement in environmental conservation.

This study has several limitations that need to be considered. Firstly, the research population was limited to Gen Z in Bandar Lampung, so the results cannot be generalized to other regions with different cultural and social characteristics. Local factors, such as cultural norms and education level, may influence the relationship between Islamic values, environmental awareness, and environmentally friendly behavior. Secondly, this study uses a quantitative approach that focuses on statistical relationships between variables. While this approach provides a clear picture of the relationships and influences between variables, it lacks the ability to explore relevant qualitative aspects, such as personal motivations or in-depth individual experiences. Thirdly, although the correlation value and coefficient of determination show a significant relationship, this study cannot fully explain the cause-and-effect relationship.

There are indications that other variables, such as media influence, peer pressure, or economic conditions, play a role in shaping environmental awareness and behavior. Fourth, the reliability of the instrument was tested with Cronbach's Alpha, which yielded a value above the 0.70 threshold. However, good internal consistency does not necessarily guarantee the external validity of the instrument. Therefore, further research is needed to test the external validity of these results on a wider population. This limitation suggests the need for more in-depth and comprehensive follow-up research. Qualitative research can be used to complement these findings by exploring the subjective and contextual aspects of the relationship between Islamic values and environmentally friendly behavior. In addition, longitudinal research can help observe changes in environmental awareness and behavior over time, providing deeper insights into the dynamics of this relationship.

CONCLUSION

The conclusion of this study shows that the understanding of Islamic values, such as tawhid, khalifah, fitrah, and mizan, has a very strong relationship with increasing environmental awareness in Gen Z in Bandar Lampung. Islamic values not only provide spiritual guidance but also encourage ecological responsibility as part of religious obligations. This generation tends to see environmental conservation as a form of devotion to God, which results in stronger pro-environmental behavior. The significant relationship between understanding Islamic values, environmental awareness, and environmentally friendly behavior was confirmed through statistical analysis. With a 74.1% contribution to environmentally friendly behavior, Islamic values proved to be an important moral foundation in supporting environmental conservation actions. This confirms the relevance of integrating religious values in education and environmental policy to form a generation that is more concerned about ecosystem sustainability. This research also highlights the great potential of Gen Z as agents of change in preserving the environment. Comprehensive religious education, Islamic values-based training, and environmental promotion through religious leaders are strategic steps that can strengthen their ecological awareness. The results of this study underscore the importance of a faith-based approach as an innovative solution to support environmental sustainability amid global challenges.

REFERENCES

Abd Rahman, N., Zabidi, F. N. M., & Halim, L. (2020). Integration of tauhidic elements for environmental education from the teachers' perspectives. *Religions*, 11(8), 394.

- Abdelzaher, D. M., Kotb, A., & Helfaya, A. (2019). Eco-Islam: Beyond the principles of why and what, and into the principles of how. *Journal of Business Ethics*, 155, 623–643.
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human behavior and emerging technologies*, 2(4), 314–324.
- Begum, A., Jingwei, L., Marwat, I. U. K., Khan, S., Han, H., & Ariza-Montes, A. (2021). Evaluating the impact of environmental education on ecologically friendly behavior of university students in Pakistan: The roles of environmental responsibility and Islamic values. *Sustainability*, 13(18), 10188.
- Bensaid, B. (2023). An Overview of Muslim Spiritual Eco-Education. *Journal of Dharma*, 48(4), 465–494.
- Bhat, S.-U. (2018). Concept of Tawhid (Unity of God) in Islam: A Study of Relevant Qur'anic Text. *International Journal of Historical Insight and Research*, 4, 20–27.
- Borgstede, M., & Scholz, M. (2021). Quantitative and qualitative approaches to generalization and replication—A representationalist view. *Frontiers in Psychology*, 12, 605191.
- Brand, B. M., Rausch, T. M., & Brandel, J. (2022). The importance of sustainability aspects when purchasing online: comparing generation X and generation Z. *Sustainability*, 14(9), 5689.
- Bryson, J. R., Andres, L., & Davies, A. (2020). Covid-19, virtual church services, and a new temporary geography of home. *Tijdschrift voor economische en sociale geografie*, 111(3), 360–372.
- Çakmaklı, A. D., Boone, C., & van Witteloostuijn, A. (2017). When does globalization lead to local adaptation? The emergence of hybrid Islamic schools in Turkey, 1985–2007. *American Journal of Sociology*, 122(6), 1822–1868.
- Elgammal, I., Ghanem, M., & Al-Modaf, O. (2024). Sustainable Purchasing Behaviors in Generation Z: The Role of Social Identity and Behavioral Intentions in the Saudi Context. *Sustainability*, 16(11), 4478.
- Gada, M. Y. (2024). Islam and Environmental Ethics. *Elements in Islam and Science*.
- Gade, A. M. (2019). *Muslim environmentalism: Religious and social foundations*. Columbia University Press.
- Gray, S. G., Raimi, K. T., Wilson, R., & Árvai, J. (2019). Will Millennials save the world? The effect of age and generational differences on environmental concern. *Journal of Environmental Management*, 242, 394–402.
- Hamadeh, S. A. (2022). How gen Z can improve community literacy about the 17 SDGs? A realistic approach to construct a futuristic change-maker paradigm. *Green Technology, Resilience, and Sustainability*, 2(1), 2.
- Hasan, H. (2022). Islam and Ecological Sustainability: An Exploration into Prophet's Perspective on Environment. *Social Science Journal for Advanced Research ISSN (Online)*, 74–2583.
- Hopid, A., Rachmaningtyas, N. A., & Kistoro, H. C. A. (2023). Generation " Z's Perception of Religious Moderation and Tendency to Choose Religious Studies in Indonesia. *Jurnal pendidikan agama Islam*, 20(1), 20–32.
- Huda, M., Sudrajat, A., Muhamat, R., Mat Teh, K. S., & Jalal, B. (2019). Strengthening divine values for self-regulation in religiosity: insights from Tawakkul (trust in God). *International Journal of Ethics and Systems*, 35(3), 323–344.
- Jamil, S. (2022). Halal Wastewater Recycling: Environmental solution or religious complication? In *Religious Environmental Activism* (hal. 93–111). Routledge.
- Joseph Hair, Rolph Anderson, Bill Black, B. B. (2016). Multivariate data analysis. In *Exploratory factor analysis* (7 ed.). Pearson Education.
- Koehrsen, J. (2021). Muslims and climate change: How Islam, Muslim organizations, and religious leaders influence climate change perceptions and mitigation activities. *Wiley Interdisciplinary*

Reviews: Climate Change, 12(3), e702.

- Kounsar, A. (2016). The Concept of Tawhid in Islam: In the Light of Perspectives of Prominent Muslim Scholars. *Journal of Islamic Thought and Civilization*, 6(2), 94–110.
- Le Duc, A. (2023). Responsibility is a primary environmental virtue in Islam. *Asian Journal of Philosophy and Religion*, 2, 187–206.
- Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection, and analysis. *European journal of general practice*, 24(1), 9–18.
- Mutaqin, M. Z., Lestari, D. A., Solihin, S., Al-Ayyubi, I. I., & Rahmawati, S. (2024). Factors in Religious Culture to Increase Tolerant Attitude of Gen-Z Among Urban Muslims. *Akademika: Jurnal Pemikiran Islam*, 29(1), 73–86.
- Nawawi, M., Halid, I., Julaikha, S., & Suhada, A. (2024). The Implementation of the Eco-Pesantren Program in Environmental Management at Islamic Boarding Schools in West Lombok. *PROMOTOR*, 7(6), 885–893.
- Nikolić, T. M., Paunović, I., Milovanović, M., Lozović, N., & Đurović, M. (2022). Examining Generation Z's attitudes, behavior and awareness regarding eco-products: A Bayesian approach to confirmatory factor analysis. *Sustainability*, 14(5), 2727.
- Rahman, A. K. (2022). *Islamic environmental ethics: a model for shaping Muslim attitudes in helping to promote environmental education, awareness, and activism*. University of Wales Trinity Saint David (United Kingdom).
- Raquib, A., Javaid, O., & Anjum, G. (2020). Creation of the Islamic self for sustainability: can Muslim entrepreneurship positively contribute to the sustainable development goals through Tazkiya (self-restraint) and Tarbiya (self-discipline) of the Muslim youth? *Journal of Islamic Business and Management*, 10(2), 323–342.
- Rizal, R., Ghofur, R. A., & Utami, P. (2023). The Role of Muslim Generation Community at Zakat Collection on Realizing Sustainable Development Goals (SDGs) in the Era of Digital Society 5.0. *JURIS (Jurnal Ilmiah Syariah)*, 22(1), 105–118.
- Rolston III, H. (2020). *A new environmental ethics: the next millennium for life on earth*. Routledge.
- Sahin, A. (2018). Critical issues in Islamic education studies: Rethinking Islamic and Western liberal secular values of education. *Religions*, 9(11), 335.
- Sayem, M. A. (2020). *Religious Perspectives on Environmental Issues: A Comparative Study of John B. Cobb, Jr. and Seyyed Hossein Nasr*. The Chinese University of Hong Kong (Hong Kong).
- Sayem, M. A. (2021). Islam and environmental ethics. *Islamic Studies*, 60(2), 157–172.
- Shah, S. S., & Asghar, Z. (2024). Individual attitudes towards environmentally friendly choices: a comprehensive analysis of the role of legal rules, religion, and confidence in government. *Journal of Environmental Studies and Sciences*, 1–23.
- Subaidi, Tantowi, A., Cholid, N., Junaedi, M., Waluyo, & Nursikin, M. (2023). Eco-pesantren: Islamic Education in Forest Conservation Landscapes. *Fudan Journal of the Humanities and Social Sciences*, 16(4), 541–567.
- White, J. E. (2017). *Meet Generation Z: Understanding and reaching the new post-Christian world*. Baker Books.
- Wilkinson, R. G. (2022). *Poverty and progress: an ecological model of economic development*. Routledge.
- Zabidi, F. N. M., Abd Rahman, N., & Halim, L. (2021). Integration of Islamic values for environmental conservation: An analysis of school textbooks. *Religions*, 12(7), 509.
- Zemo, K. H., & Nigus, H. Y. (2021). Does religion promote pro-environmental behavior? A cross-country investigation. *Journal of Environmental Economics and Policy*, 10(1), 90–113.