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The Influence of Religious Participation on Pro-Environmental Behavior in Small-Island Communities: A Quantitative Study in Tidore Kepulauan City, Indonesia

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Abstract: This research examines the influence of religious participation (RP) on pro-environmental behavior (PEB) in Tidore Kepulauan City by investigating the mediating role of religious values related to the environment (RVRE) and environmental awareness (EA). It involved 200 respondents aged 18–65 years with diverse gender and educational backgrounds, ranging from elementary to tertiary education. Participants were employed in agriculture, fisheries, informal occupations, and formal sectors, and had resided in Tidore Kepulauan for at least one year, ensuring familiarity with local conditions. Data were analyzed using structural equation modeling (SEM) based on partial least squares (PLS) approach. The findings revealed that RP significantly influenced RVRE and EA, which ultimately affect PEB. These results indicate the critical role of religious dimension in fostering EA and nature conservation behavior within communities. Therefore, the involvement of institutions and religious leaders in environmental education activities can serve as an effective strategy to promote sustainable development, especially in small-island regions.

Keywords: Religious participation; Environmental awareness; Pro-environmental behavior; SEM-PLS; Small islands

1 Introduction

As one of the small-island regions in Indonesia, Tidore Kepulauan City faces severe environmental degradation. Various problems have emerged, leading to significant and ongoing ecological issues such as coastal abrasion, marine pollution, the accumulation of plastic waste, and the deterioration of coastal ecosystem [1]. These conditions are further exacerbated by inadequate environmental management infrastructure and policy interventions that overlook sociocultural characteristics. Communities in island regions are highly dependent on natural resources to sustain their livelihoods, meaning that the environmental crises affect not only ecological aspects but also social, economic, and cultural dimensions of life [2, 3].

From a sociological perspective, individuals' attitudes toward the environment are intricately linked to their values, norms, and belief systems [4, 5]. In Tidore Kepulauan City, religion plays a substantial role in shaping everyday life. Religious practices are not merely an expression of spirituality but also shape the collective understanding of life, particularly regarding human-nature relations. Routine individual and communal religious activities reflect the potential of religious institutions to act as agents in disseminating moral values and ecological ethics crucial to environmental conservation efforts [6–8].

Studies have shown that religious participation (RP) contributes to increased awareness and constructive social behavior, including pro-environmental behavior (PEB). Religious teachings—particularly within Islam, which is practiced by the majority of the Tidore population—emphasize key principles of ecological responsibility, such as the concept of *khalifah fil ardh* (guardian of the earth) [9], *mizan* (balance) [10, 11], and the prohibition of *fasad* (destruction) [12]. However, empirical studies that rigorously and quantitatively examine the effect of RP on PEB in the Indonesian archipelago are limited. This highlights a gap in the literature that requires a data-driven investigation.

Several earlier studies affirm that religious values play a crucial role in shaping social behavior, particularly regarding environmental awareness (EA) and practices. Hope and Jones [13] argued that religious values and beliefs influence ecological perspectives, while religiosity significantly shapes individual behavior. Karimi et al. [14] stated that religiosity acts as a form of social pressure that strengthens pro-environmental intentions and actions among female rural facilitators in Iran. Pratama et al. [15] similarly highlighted that embracing spiritual values can enhance individuals' moral commitment to environmental conservation. Furthermore, the study [16] indicated that incorporating religious values into environmental education can substantially promote ecological awareness in a holistic and impactful manner.

This study utilizes a quantitative approach to assess and measure the influence of RP on individuals' PEB in Tidore Kepulauan City. RP is defined as the level of individual involvement in worship practices, socioreligious events, and the internalization of religious values in daily life. PEB refers to specific actions, including waste management, coastal resource conservation, and plastic use reduction. Through this focus, this study aims to contribute theoretically to sociological research on religion and the environment while also offering context-sensitive policy recommendations to support sustainable development in small-island regions.

The relationship between religiosity and EA among island communities, especially in eastern Indonesia, remains empirically underexplored. Earlier research has predominantly emphasized structural and technocratic perspectives on environmental challenges, overlooking the importance of cultural and spiritual factors. Accordingly, this study aims to address this gap by providing quantitative data that illustrate how RP and values shape ecological behavior. By positioning religion as a sociological variable that can be systematically analyzed, the findings may inform the formulation of inclusive, comprehensive, and locally grounded policy interventions in Tidore Kepulauan City.

2 Literature Review

This section discusses theories that connect RP to PEB and reviews relevant previous research. The objective is to gain a broader understanding of how engagement in religious activities can shape individuals' environmental perspectives and behaviors, especially in small-island regions that are vulnerable to climate change and natural disasters.

2.1 Concept and Participation of Religion

Religion comprises a structured set of beliefs and practices that link individuals to the transcendent or sacred [17, 18]. Within a sociological framework, it functions as a social institution that significantly shapes norms, behaviors, and social structures.

RP greatly impacts an individual's moral and ethical views, particularly regarding social matters, such as justice, care for others, and environmental responsibility.

The Theory of Planned Behavior (TPB), when expanded through a religiosity perspective, suggests that religious beliefs influence subjective norms, attitudes towards behaviors, and perceptions of behavioral control. These elements collectively shape behavioral intentions and actual actions.

In this context, RP not only indicates spiritual engagement but can also act as a driving force for constructive social behavior, including encouraging PEB [19].

2.2 Religious Beliefs and Environmental Behavior

Religion plays a substantial role in environmental preservation by providing ethical guidance, moral responsibility, and principles of justice that encourage the protection of nature.

Religious teachings frequently stress the significance of a harmonious connection between humans and nature. They perceive nature as a divine creation deserving of respect and protection, which prohibits its overexploitation. Numerous religious traditions underscore that environmental degradation is more than a social ethics concern; it represents a spiritual transgression with potential moral repercussions for both individuals and communities.

For instance, Islam presents the idea of *khalifah fi al-ardh*, which assigns humans a divine mandate to manage the earth with fairness and wisdom. Similarly, Christian doctrine highlights stewardship, which asserts that humans are caretakers of God's creation and have a duty to maintain ecological balance [20, 21]. Hinduism and Buddhism promote the principle of *ahimsa*, which underscores the importance of not causing harm to any living beings, including through environmental degradation [22].

The impact of religion extends beyond theological doctrines and norms; it influences practice through rituals, lectures, sermons, and faith-based education that cultivate ecological values and enhance collective awareness regarding environmental conservation.

2.3 Structural Equation Modeling

Structural equation modeling (SEM) is a quantitative statistical approach to test causal and correlational relation-

ships among latent variables and their observable indicators [23, 24]. It provides an analytical framework that enables researchers to simultaneously test complex theoretical models involving RP as predictor variables of PEB.

The SEM approach views RP as a latent construct assessed through several indicators, such as how often individuals attend religious services, their engagement in social activities rooted in religion, and their comprehension of spiritual values. In contrast, PEB is framed as a construct that includes specific actions, such as waste management, water conservation, and environmentally responsible practices.

SEM is also capable of analyzing direct and indirect relationships (mediation and moderation) [25, 26], making it valuable for understanding if spiritual awareness or religious social norms mediate the relationship between RP and PEB. Consequently, SEM serves as an effective analytical tool to explore the intricate relationship between religious belief systems and ecological responses in small-island communities, such as Tidore Island City, where religiosity is highly embedded in everyday life.

2.4 Integration of the Theory of Planned Behavior with Religious Context in Tidore Kepulauan City

Developed by Ajzen [27], TPB postulates that individual behavior is influenced by three primary constructs: attitude toward the behavior, subjective norms, and perceived behavioral control. In the Tidore community, these constructs can be enriched through religious frameworks.

Subjective norms in Tidore are shaped not only by peer or family expectations but also by the influence of religious leaders (such as *ustadz* and *imam*) and social norms embedded in religious teachings. These figures act as moral authorities who shape the community's views about environmental stewardship.

Perceived behavioral control is influenced by both access to environmental knowledge (often disseminated through sermons) and collective belief in religious duty (*amanah*) to protect nature, which strengthens confidence in undertaking eco-friendly actions, such as recycling or reducing waste. RP thus plays a dual role: reinforcing subjective norms by embedding environmental ethics in the social fabric and enhancing perceived control by providing moral and spiritual support for PEB. This contextual integration provides deeper explanatory power in understanding PEB in small-island communities where religious influence remains dominant.

3 Methodology

This study employed a quantitative approach using a survey method targeting individuals actively engaged in religious activities in Tidore Kepulauan City. A total of 200 respondents were purposively selected to ensure adequate data for SEM analysis. The sample size followed recommendations from previous SEM-PLS studies, which recommend a minimum of ten respondents per indicator for the most complex construct, as suggested by Kock and Hadaya [28]. Given that the most complex construct in this model comprised four indicators, the minimum required sample would be 40.

The study utilized a questionnaire featuring a five-point Likert scale to assess four key constructs: RP, religious values related to the environment (RVRE), EA, and PEB. RP refers to the frequency and intensity of involvement in religious activities; RVRE convey individuals' interpretation of religious teachings concerning the environment; EA assesses the degree of concern for ecological matters; and PEB pertains to specific actions taken to safeguard the environment.

Items measuring the construct RVRE were adapted from previously validated instruments, particulalry Karimi et al. [14] which employed the TPB framework to explore how Islamic religiosity influences environmental intentions and actions. The adaptation process involved contextual modifications to reflect the Tidore cultural and religious context, emphasizing values such as *khalifah fil ardh* (vicegerency), *mizan* (balance), and *fasad* (corruption). Sample items included: "My religion teaches the importance of preserving nature" and "I believe that destroying the environment is against religious teachings.

Table 1. Basic profile of respondents

Characteristic	Description
Age	18–65 years
Sex	Male and female
Educational level	Ranging from elementary school to tertiary education
Occupation	Agriculture, fisheries, informal, and formal sectors
Duration of residence	Minimum of 1 year living in Tidore Kepulauan
Religious participation	Active involvement in community religious activities
Environmental involvement	Participation in reforestation, waste management, and conservation activities

Data were analyzed using the SEM-PLS approach through SmartPLS, software to assess construct validity, indicator reliability, and direct and indirect relationships among variables. The study tested the following hypotheses:

H1: RP has a positive effect on RVRE.
H2: RVRE has a positive effect on EA.
H3: EA has a positive effect on PEB.
H4: RP has a positive effect on PEB.

Table 1 shows the basic profile of the respondents of this research. Figure 1 presents the structural model illustrating the relationship between RP and PEB. Based on this model, Table 2 summarizes the variables, operational definitions, and measurement indicators.

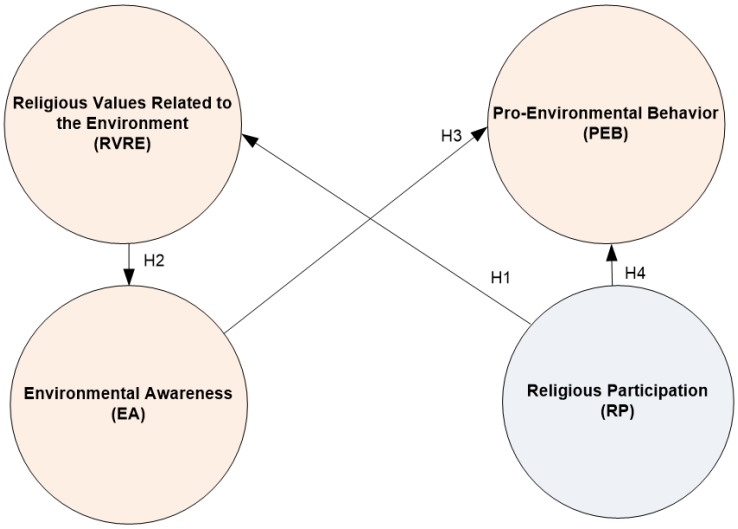

Figure 1. Structural model design

Table 2. Variables, operational definitions, and measurement indicators

Variable	Operational Definition	Measurement Indicators
Religious participation (RP)	The level of individual involvement in religious activities within the community	- Frequency of attending religious services - Participation in socio-religious activities - Activeness in religious organizations
Religious values related to the environment (RVRE)	Internalized religious teachings that encourage concern for the environment	- Belief that environmental protection is part of religious obligations - Perception that environment destruction cointradicts religious values - Religious motivation to preserve nature
Environmental awareness (EA)	The level of understanding and concern for environmental issues	- Knowledge of environmental issues - Concern about human impact on nature - Involvement in environmental discussions or activities
Pro-environmental behavior (PEB)	Concerete actions taken to protect and preserve the environment	- Recycling and waste management - Efficient use of resources (water, electricity) - Participation in conservation activities such as tree planting and environmental cleanups

4 Results and Discussion

4.1 Overview of Religious Participation

The RP variable was assessed using four indicators. Each statement item included a rating scale for response levels. The scores for each indicator were summed to obtain the RP total score for each respondent, and the final categorization was determined based on the overall mean value. Table 3 presents the frequency distribution of responses related to the RP variable.

Table 3 shows that the strongest indicator is statement number 4, which obtained the highest mean score of 4.65 and was categorized as Very High. The statement reads “Religious teachings motivate me to do good to others and the environment.” A total of 141 respondents (68.1%), selected Strongly Agree. Meanwhile, the lowest

indicator is statement number 1, with a mean score of 3.86 (categorized as High) for the statement "I regularly attend religious activities in my community," where 96 respondents (46.4%) selected Agree. The results show that the mean accumulation of all responses per item in the RP variable is 4.07, indicating that RP among respondents into the High category.

Table 3. Distribution of responses to religious participation (RP) variable

No.	Variable Item		Response Options					Mean	Category
			SA	A	N	D	SD		
1	I regularly attend religious activities in my community	f	49	96	51	6	5	3.86	High
		%	23.7	46.4	24.6	2.9	2.4		
2	I actively participate in social activities held by religious institutions	f	50	98	51	5	3	3.90	High
		%	24.2	47.3	24.6	2.4	1.4		
3	I actively participate in social activities held by religious institutions	f	44	104	52	3	4	3.87	High
		%	21.3	50.2	25.1	1.4	1.9		
4	Religious teachings motivate me to do good to others and the environment	f	141	62	3	0	1	4.65	Very High
		%	68.1	30.0	1.4	0.0	0.5		
Accumulation of responses								**4.07**	**High**

4.2 Overview of Religious Values Related to the Environment

The RVRE variable was measured using three indicators. Each response was scored, and total scores were accumulated to determine the categorization based on the average respondent score. Table 4 presents the frequency distribution of responses regarding RVRE.

As shown in Table 4, the strongest indicator is statement number 1, with a mean score of 4.66, categorized as Very High. The statement reads "My religion teaches the importance of preserving nature," and the majority of respondents, totaling 138 people (66.7%), selected Strongly Agree. Meanwhile, the weakest indicator is statement number 3, with a mean score of 4.47 (categorized as Very High) for the statement stating "I have a moral responsibility to preserve the environment, according to my religious teachings," with 106 respondents (51.2%) selecting Strongly Agree.

Table 4. Distribution of responses to environmental awareness (EA) variable

No.	Variable Item		Response Options					Mean	Category
			SA	A	N	D	SD		
1	I am aware that human activities can damage the environment	f	56	90	35	23	3	3.84	High
		%	27.1	43.5	16.9	11.1	1.4		
2	I am aware of the importance of maintaining cleanliness and environmental sustainability	f	131	74	2	0	0	4.62	Very High
		%	63.3	35.7	1.0	0.0	0.0		
3	I keep up to date with information about environmental issues	f	53	111	36	6	1	4.01	High
		%	25.6	53.6	17.4	2.9	0.5		
Accumulation of responses								**4.16**	**High**

The overall mean score for all RVRE indicators is 4.57, indicating that respondents possess Very High religiously grounded environmental values.

4.3 Overview of Environmental Awareness

The EA variable was assessed using three indicators. Each response was assigned a score, which was then accumulated to categorize the variable based on the average score of all respondents. Table 5 summarizes the frequency distribution of responses related to EA.

Table 5. Distribution of responses to religious values related to the environment (RVRE) variable

No.	Variable Item		Response Options					Mean	Category
			SA	A	N	D	SD		
1	My religion teaches the importance of preserving nature	f	138	67	2	0	0	4.66	Very High
		%	66.7	32.4	1.0	0.0	0.0		
2	I believe that destroying the environment is against religious teachings	F	129	72	4	2	0	4.58	Very High
		%	62.3	34.8	1.9	1.0	0.0		
3	I have a moral responsibility to preserve the environment, according to my religious teachings	F	106	93	7	1	0	4.47	Very High
		%	51.2	44.9	3.4	0.5	0.0		
Accumulation of responses								**4.57**	**Very High**

Table 5 indicates that the strongest indicator is statement number 2, with a mean score of 4.62, categorized as Very High. The statement reads "I am aware of the importance of maintaining cleanliness and environmental sustainability," with 131 respondents (63.3%) selecting Strongly Agree. The indicator with the lowest mean is statement number 1.

"I am aware that human activities can damage the environment," which recorded a mean of 3.84 (categorized as High), where 90 respondents (43.5%) selected Agree. The overall mean score of all EA indicators is 4.16, indicating that EA among respondents is categorized as High.

4.4 Overview of Pro-Environmental Behavior

The PEB variable was assessed using three indicators. Each response was scored, and total scores were accumulated to categorize respondents' PEB levels based on the average score. Table 6 presents the frequency distribution of responses related to PEB.

Table 6. Distribution of responses to pro-environmental behavior (PEB) variable

No.	Variable Item		Response Options					Mean	Category
			SA	A	N	D	SD		
1	I throw away the trash in the right place and sort the trash according to its category	f	76	107	22	2	0	4.24	Very High
		%	36.7	51.7	10.6	1.0	0.0		
2	I save water and electricity in my daily use	f	88	102	15	2	0	4.33	Very High
		%	42.5	49.3	7.2	1.0	0.0		
3	I participate in environmental conservation activities such as tree planting or environmental clean-ups	f	76	102	25	4	0	4.21	Very High
		%	36.7	49.3	12.1	1.9	0.0		
Accumulation of responses								**4.26**	**Very High**

As shown in Table 6, the strongest indicator is statement number 2, with a mean score of 4.33, categorized as Very High, for the statement, "I save water and electricity in my daily use." The majority of respondents (102 respondents or 49.3%) selected Agree. The lowest indicator is statement number 3, with a mean score of 4.21, also categorized as Very High, for the item, "I participate in environmental conservation activities such as tree planting or environmental clean-ups," where 102 respondents (49.3%) selected Agree.

The overall mean score is 4.26, demonstrating that respondents' PEB falls into the Very High category.

4.5 Hypothesis Testing (Path Analysis)

This section examines the evaluation of path coefficients that signify causal relationships or effects among latent variables. A causal relationship is deemed insignificant if the t-statistic falls between -1.96 and 1.96 at a 0.05 significance level. To ensure greater stability in estimating the t-statistics, a resampling method such as bootstrapping was utilized [29, 30].

Bootstrapping enhances the stability of estimates derived from the inner model. It facilitates a more accurate assessment of t-statistics and improves the reliability of the results [31]. In adiition, it allows evaluation of the extent to which the inner model explains the variance of the tested endogenous constructs. During bootstrapping, samples are taken with replacement, ensuring each sample matches the original sample size [32]. Statistical estimates are calculated from each sample to provide a more stable and accurate assessment. This resampling technique can be employed to obtain a more reliable estimate of a population or sample. Additionally, this method can test the significance of a statistical estimate by calculating the confidence interval or p-value of the resulting statistical distribution.

Using the PLS software, the estimated critical ratio values of the structural model were obtained. A summary of the findings is presented in Table 7.

Table 7. Results of SEM-PLS path analysis

Influence Among Latent Variables	Path Coefficient	t-Value	p-Value	Conclusion
RP $\rightarrow$ RVRE	0.284	3.343	0.001	Significant
RVRE $\rightarrow$ EA	0.604	13.78	0.000	Significant
EA $\rightarrow$ PEB	0.436	5.274	0.000	Significant
RP $\rightarrow$ PEB	0.394	4.145	0.000	Significant

Based on the analysis, RP has a positive and significant effect on RVRE (β = 0.284; t = 3.343). RP also has a direct significant effect on PEB (β = 0.394; t = 4.145). Furthermore, RVRE has a significant effect on EA (β = 0.604; t = 13.78), and EA has a significant effect on PEB (β = 0.436; t = 5.274). Since all t-values exceed 1.96, all

relationships among variables are statistically significant. Thus, RP not only has a direct effect on PEB, but also indirectly through RVRE and EA.

The structural path coefficients and factor loadings of manifest indicators in the measurement model are illustrated in Figure 2.

Figure 2 shows that PEB is strongly influenced by EA (β = 0.436), while EA is substantially influenced by RVRE (β = 0.604). The most dominant indicator contributing to RVRE is Rvre.2 (belief that damaging the environment violates religious values), with the highest factor loading of 0.916. Therefore, improving this indicator must be a top priority in strategic policy evaluation since it has the strongest influence on the model.

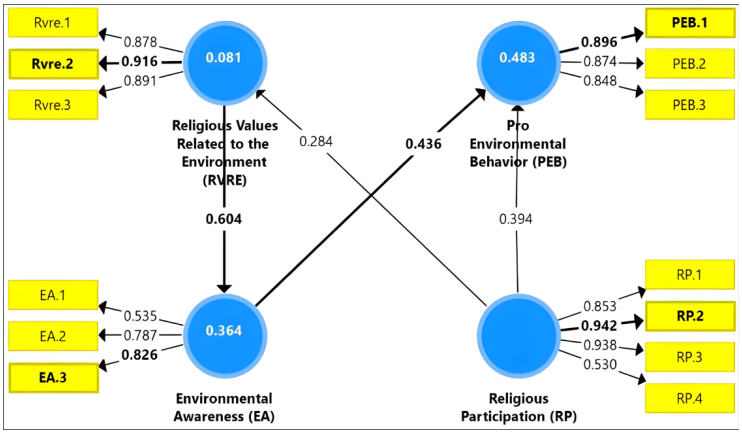

Figure 2. Path diagram of measurement and structural models (overall)

Based on the analysis of dominant paths and indicators, four key factors explain challenges in strengthening PEB in Tidore Kepulauan City:

1. The highest path coefficient (RVRE $\rightarrow$ EA = 0.604; EA $\rightarrow$ PEB = 0.436) indicates that the root of the problem is the weak belief that damaging the environment means going against religious values (indicator Rvre.2). When individuals are not aware that environmental problems are related to moral-religious matters, their internal motivation to care and act (EA and PEB) is not strong enough. In other words, without a solid foundation of religious values condemning environmental damage, efforts to raise awareness or improve waste management practices remain superficial.
2. While environmental information is accessible, its distribution is fragmented. Indicator EA.3 (environmental news/trend updates) with a loading of 0.826 highlights that timely, relevant information significantly behavior. On the other hand, sporadic or overly technical dissemination reduces engagement and collective momentum, thereby weakening environmental responsiveness.
3. RP tends to be more focused on rituals and social aspects, lacking the integration of environmental messages. Although RP.2 (participation in socioreligious activities) shows strong performance with a loading of 0.942, its impact on RVRE remains modest (β = 0.284). This implies that while the community engages actively in religious events, the topic of ecological responsibility is not consistently included by these activities, resulting in an unfulfilled potential for promoting environmental awareness.
4. At the practical level (PEB.1), infrastructure and incentive barriers persist. Despite willingness, structural barriers remain, particularly regarding waste segregation facilities, access to waste banks, and incentive mechanisms. These constraints compel households to revert to the old habit of mixing organic and non-organic waste, which undermines effective waste management initiatives.

Overall, the challenges are systemic, including weak value internalization, limited integration of environmental messages in religious activities, inadequate information distribution, and insufficient environmental facilities. Comprehensive and simultaneous solutions are required to ensure that values (RVRE), awareness (EA), and actions (PEB) progress harmoniously toward sustainable ecological behavior.

4.6 Broader Implications and Global Relevance

This study contributes to global discussions on the intersection of religion and environmental sustainability by demonstrating how Islamic ecological ethics can serve as a foundation for shaping environmental attitudes and behaviors. Core Islamic concepts such as *khalifah fil ardh* (vicegerency), *mizan* (balance), and *fasad* (corruption) offer not only religious justification but also moral obligation to preserve the environment. These theological constructs are consistent with environmental ethics found in other religious traditions—such as Christian stewardship, Hindu *ahimsa*, and Buddhist interdependence—highlighting a universal role for religious teachings in promoting

sustainability. Although the empirical setting of this research is within a predominantly Islamic community in Tidore Kepulauan City, the theoretical model comprising RP, internalized religious values, and EA may be applicable in other religious and cultural contexts. In many societies, religious leaders and institutions hold substantial influence over collective behavior. Therefore, the mechanisms identified in this study could inform similar approaches in non-Islamic communities where faith-based engagement is strong. These findings reinforce the notion that religious institutions, regardless of doctrine, can function as key actors in advancing PEB, making the study relevant beyond its local context.

4.7 Policy Recommendations to Promote Pro-Environmental Behavior

Promoting sustainable PEB in island communities such as Tidore Kepulauan City requires a holistic approach that integrates religious values, informational awareness, religious practices, and infrastructure support. Based on the findings, several strategic recommendations can guide policymakers and stakeholders:

1. Strengthening Religious Values (RVRE.2): Engaging religious leaders to communicate that environmental destruction contradicts religious values is essential. Utilizing inventive *da'wah* media—such as videos, infographics, and posters, along with training for these leaders—can enhance ecological messages based on local religious beliefs.

2. Optimizing Environmental Information (EA.3): An official digital platform showcasing the most recent environmental news should be established. Additionally, distributing concise, engaging content via social media and partnering with local media for a dedicated column on "Environment and Religion" can amplify the discussion on environmental issues.

3. Integrating Religious Activities and Real Action (RP.2): It is essential to incorporate environmental clean-up initiatives into regular religious practices. Additionally, offering incentives that include certificates or e-money to engaged people can help ensure that spiritual activities promote environmental responsibility.

4. Providing Facilities to Support Waste Management (PEB.1): Separated waste bins for households and expansion of the incentive-based waste bank systems are needed. A public dashboard at the neighborhood level (RT/RW) can help track progress and encourage healthy competition in waste sorting.

5. Enhancing Religious Engagement through Targeted Preaching Tools: Religious leaders in Tidore can be equipped with practical tools and sermon templates that explicitly link Quranic principles to local environmental issues. Government and NGOs can facilitate training that helps religious figures contextualize environmental stewardship in religious language, thus improving the ecological impact of sermons and prayer gatherings.

6. Faith-Based Policy Integration by Local Governments: Local government authorities (*pemerintah daerah*), in collaboration with the Ministry of Religious Affairs (*Kementerian Agama*) and environmental NGOs, can integrate religious values into formal environmental policies. This may include establishing mandatory green modules in madrasah, funding *eco-pesantren* programs, and launching mosque-based waste management initiatives with performance-based incentive.

7. Strengthening NGO–Religious Institution Collaboration: Structured collaboration between local religious institutions and environmental NGOs is essential to enhance the impact of faith-based environmental advocacy. Mosques, Islamic schools, and religious councils in Tidore can serve as strategic platforms for environmental outreach by partnering with NGOs in co-developing sermon materials, organizing eco-literacy workshops for *imam*, and launching community programs such as "Eco-Ramadhan" campaigns or "Clean Friday Movements." These collaborations can be formalized through memoranda of understanding (MoUs), supported by the local government and the Ministry of Religious Affairs, ensuring continuity, funding, and measurable environmental outcomes. Such integration bridges spiritual engagement with ecological action, making PEB a normative and communal practice.

4.8 Cultural Interpretation of Path Coefficient Differences

Although RP significantly influences PEB, its effect size is lower than that of EA. This may reflect cultural characteristics of the Tidore community, where religious activities are primarily centered on ritualistic and spiritual dimensions, rather than practical environmental engagement. While religious teachings advocate for environmental stewardship, these messages may not consistently translate into daily practices unless reinforced by tangible awareness of ecological threats. In contrast, EA—which reflects a direct cognitive and emotional understanding of environmental problems—appears to more strongly trigger behavioral responses, particularly in a small-island contexts where environmental degradation is immediate and visible. Therefore, EA becomes a more proximal predictor of PEB compared to RP, unless religious messages are explicitly tied to local environmental realities.

5 Conclusion

The results of the study indicate that the level of RP within the Tidore Kepulauan community falls within the high category. This suggests that active engagement in religious activities positively influences attitudes and behaviors regarding environmental issues. Religious values related to environmental conservation are also notably strong, implying that religious teachings have successfully instilled a moral responsibility toward nature in daily

life. Environmental awareness is categorized as high, demonstrating community recognition of the importance of preserving the environment, although variations remain in the extent to which individuals understand the impact of human activities on the environment. Meanwhile, PEB is classified as very high, as reflected in positive habits such as energy conservation, environmental cleanliness, and participation in collective conservation efforts.

Statistical path analysis using the SEM-PLS method confirms that RP plays a significant role in shaping RVRE. This influence consequently enhances environmental awareness and promotes PEB. Furthermore, RP has been proven to significantly influence PEB, indicating that engagement in religious activities not only shapes spiritual values but also contributes substantially to EA and preservation. Thus, a value-based approach along with religious institutions can serve as an effective cultural strategy for fostering sustainable behavior within the local community. Future research is recommended to broaden the scope of analysis to other small-island regions in Indonesia, to examine the consistency of these relationships across diverse social and cultural contexts.

Author Contributions

Conceptualization, A.S.S. and S.S.; methodology, A.S.S.; formal analysis, A.S.S.; investigation, A.S.S.; writing—original draft preparation, A.S.S.; project administration, A.S.S.; validation, S.S. and M.P.; supervision, S.S.; writing—review and editing, S.S. and M.A.H.; data curation, M.P.; software, M.A.H.; visualization, M.A.H.; resources, M.P.; funding acquisition, S.S. All authors have read and agreed to the published version of the manuscript.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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