

Between Islamic character education and the transformation of green campus-oriented behavior in state Islamic higher education institutions

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Abstract

This study examines the level of Islamic character education among students of three Islamic State Universities (PTKIN) as an indicator for measuring students' Green Campus views and attitudes. The sampling method used in this study is the Quota Sampling method. The objects of this study were students spread across three PTKIN, namely UIN Syarif Hidayatullah Jakarta, UIN Sunan Gunung Djati Bandung, and UIN Sultan Hasanuddin Banten with a sample size of 425 students. The overall level of Islamic character education of PTKIN students is in the "Good" (45.41%) and "Very Good" (30.12%) categories. A small portion of students is in the "Low" category (24.00%), and only 0.47% are in the "Very Low" category. The level of Green Campus behavior of PTKIN students is dominated by the "Low" category (51.06%), followed by "Good" (22.59%), and "Very Good" (24.94%). Meanwhile, only 1.41% of students are in the "Very Low" category. The results of the hypothesis testing revealed a positive and significant influence between the level of Islamic character education on the Green Campus behavior of PTKIN students. With a path coefficient of 0.881 and a p-value of 0.000, these results indicate that the higher the level of Islamic character education of students, the greater their tendency to behave in an environmentally friendly manner. The magnitude of the influence of Islamic character education on Green Campus behavior is 77.6%, while the remainder is influenced by other factors.

Keywords: *Islamic character education; green campus; behavioral transformation; students; islamic state universities.*

Abstrak

Penelitian ini mengkaji tingkat pendidikan karakter Islam pada mahasiswa tiga PTKIN sebagai bahan indikator pengukuran pandangan dan sikap Green Campus mahasiswa. Metode sampling yang digunakan pada penelitian ini adalah metode Quota Sampling. Objek penelitian ini adalah mahasiswa yang tersebar di tiga PTKIN, yaitu UIN Syarif Hidayatullah Jakarta, UIN Sunang Gunung Djati Bandung, dan UIN Sultan Hasanuddin Banten dengan ukuran sampel sebesar 425 mahasiswa. Tingkat pendidikan karakter Islami mahasiswa PTKIN secara keseluruhan berada pada kategori "Baik" (45,41%) dan "Sangat Baik" (30,12%). Sebagian kecil mahasiswa berada pada kategori "Rendah" (24,00%), dan hanya

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0,47% yang masuk dalam kategori "Sangat Rendah". Tingkat perilaku Green Campus mahasiswa PTKIN didominasi oleh kategori "Rendah" (51,06%), diikuti oleh "Baik" (22,59%), dan "Sangat Baik" (24,94%). Sementara itu, hanya 1,41% mahasiswa yang berada pada kategori "Sangat Rendah". Dari hasil pengujian hipotesis diketahui bahwa terdapat pengaruh positif dan signifikan antara tingkat pendidikan karakter Islami terhadap perilaku Green Campus mahasiswa PTKIN. Dengan koefisien jalur sebesar 0,881 dan nilai p-value 0,000, hasil ini menunjukkan bahwa semakin tinggi tingkat pendidikan karakter Islami mahasiswa, semakin besar kecenderungan mereka untuk berperilaku ramah lingkungan. Besarnya pengaruh pendidikan karakter Islami terhadap perilaku Green Campus adalah 77,6%, sedangkan sisanya dipengaruhi oleh faktor lain.

Kata kunci: pendidikan karakter Islam; green campus; transformasi perilaku; mahasiswa; perguruan tinggi keagamaan Islam negeri.

Introduction

The theme of Islamic character education has attracted the attention of numerous international researchers. Over a period of thirteen years, from 2010 to 2023, there were 204 Scopus-indexed publications examining Islamic character education (Kistoro et al., 2023), while 569 publications addressed character education in general during the six-year period from 2018 to 2023 (Sumiharsono et al., 2023). Indonesia in particular, along with other Muslim-majority countries, has become the most dominant focus of these studies. Several studies on Islamic character education have involved human participation and explored themes related to health, psychology, education, and the environment. Environmental issues have frequently been examined in relation to students, Indonesia, educational computing, and Islamic values.

Islamic character-based education is highly relevant as a moral and spiritual approach to addressing environmental crises. A Green School model grounded in Islamic values has the potential to serve as a strategic alternative for advancing sustainable education. Values such as trustworthiness, responsibility, simplicity, and the concept of Khalifah fil Ard (stewardship of the Earth) constitute the primary foundations for fostering students' ecological awareness (Mandala et al., 2026). Islamic religious character can enhance environmental cleanliness awareness through educational and creative activities (Nursyahada, 2025). However, several obstacles hinder the implementation of environmentally responsible character development, including students' habits of neglecting personal and environmental cleanliness, limited knowledge and concern regarding waste management, and the influence of home environments (Hariandi et al., 2023).

Several studies have revealed a relationship between character education and environmentally friendly behavior. Character education has been found to

contribute 27% to students' environmental awareness and concern (Ma'arif, 2025). Character development can also enhance learning motivation, religious attitudes, empathy, discipline, and other positive behaviors, including environmentally responsible behavior, through the teaching of values derived from the Qur'an and Hadith (Murtadlo et al., 2025).

Other studies indicate that although character education influences environmentally friendly behavior, its impact is relatively weak (Zarate-Torres et al., 2025), suggesting that it cannot be considered a determining factor. Another study reported that character education does not directly influence environmentally friendly behavior (S. Wang et al., 2020). Furthermore, other researchers have found no significant relationship between character education and an individual's pro-environmental behavior (Arli et al., 2023).

Many factors are considered to have significant and positive effects on environmentally friendly behavior, including knowledge and environmental awareness. However, knowledge and understanding of environmental issues have been found to have only a moderate and insignificant influence on Green Campus behavior among university students (Gabriella & Sugiarto, 2020). Similarly, another study found that students' environmental awareness was at a moderate level, while their environmentally friendly behavior remained low (Pane, 2013).

These findings may be explained by several factors contributing to students' limited attention to environmental issues. As a result, higher education institutions need to implement strategic measures such as providing adequate sanitation facilities, organizing Green Campus-themed activities, and promoting Green Campus initiatives as research topics (Emi, 2013). One of the primary factors identified is the lack of adequate environmental and sanitation facilities, which significantly contributes to the low level of students' environmental awareness (Setiawati & Maulana, 2021).

In contrast, several other studies have reported that students exhibit high levels of understanding and positive behavior regarding environmental sustainability issues (Alfiyyana, 2021). These findings suggest that character education can positively and significantly influence students' environmentally friendly behavior. This conclusion is consistent with studies demonstrating the positive impact of green entrepreneurship education on the environmentally friendly business products developed by young start-up entrepreneurs (Maisaroh et al., 2022). Students' concern for green entrepreneurship has been found to be positively associated with their knowledge, understanding, and environmental awareness (Anghel & Anghel, 2022).

Higher education institutions play a strategic role in promoting green entrepreneurship by strengthening scientific knowledge, fostering responsible behavior for the future, and developing green entrepreneurial competencies that serve as the foundation for sustainable development (Anghel & Anghel, 2022). The Government of Indonesia has also contributed to this agenda through Law No. 32 of 2009 concerning Environmental Protection and Management, which stipulates that “every person has the right to receive environmental education.” This commitment is further reinforced by regulations issued by the Ministry of Research, Technology, and Higher Education, which emphasize that higher education activities should be “environmentally sustainable.”

Several State Islamic Higher Education Institutions (PTKIN) have gained recognition for their commitment to Green Campus policies and facilities. UIN Jakarta and UIN Semarang were ranked among the top 50 universities in Indonesia in the UI Green Metric rankings in 2023 (*Green Metric UI*, 2023). Such recognition is regarded as evidence of effective Green Campus implementation within higher education institutions (Fatriansyah et al., 2021). UIN Jakarta has also established a Green Campus Task Force, responsible for overseeing Green Campus policies and their implementation across the university (Universitas Islam Negeri Syarif Hidayatullah Jakarta, 2024). This research selects UIN Jakarta, UIN Bandung, UIN Cirebon, and UIN Banten as its research sites, focusing on active students who are also recipients of Islamic religious and character education within PTKIN environments.

A noticeable gap still exists between Islamic character education and environmentally friendly behavior among university students. Consequently, this study focuses on students at PTKIN institutions in Jakarta, West Java, and Banten, a context that has received limited attention from previous researchers. Therefore, this study is highly important not only for measuring the extent of influence but also for generating constructive recommendations for higher education administrators and the Ministry of Religious Affairs. The novelty of this research lies in its empirical examination of the relationship between Islamic character education and Green Campus behavior among PTKIN students through a multidimensional approach encompassing both Islamic character values and environmentally friendly behavior. This study develops an integrative model demonstrating that Islamic character education contributes significantly to the transformation of students' Green Campus behavior, an aspect that remains underexplored in the context of PTKIN institutions in Indonesia.

The objective of this study is to validate the theory that character education, particularly Islamic character education, can foster environmental awareness and

concern among individuals, especially students within Islamic educational institutions. Furthermore, this research aims to challenge the perception that communities within Islamic educational institutions merely possess a strong understanding of environmental sustainability concepts but fail to demonstrate positive attitudes and behaviors toward environmental cleanliness and environmental issues.

Research Method

This study employs a quantitative approach using a questionnaire-based data collection technique. The research focuses on students enrolled in State Islamic Higher Education Institutions (PTKIN) located in the regions of Jakarta Special Capital Region (DKI Jakarta), West Java, and Banten, namely UIN Syarif Hidayatullah Jakarta, UIN Sunan Gunung Djati Bandung, and UIN Sultan Maulana Hasanuddin Banten.

The sampling method used in this study is Quota Sampling. According to Sekaran & Bougie (2016), samples were then selected from each group using the Accidental Sampling method with proportional allocation.

To determine the sample size, the calculation procedure followed the Isaac and Michael formula (Isaac & Michael, 1981), where the proportion was set at $p = 0.5$, the Chi-Square value at the 5% significance level and $df = 1$ was $\chi^2 = 3.841$, and the sampling error was $d = 4.74\%$. With a student population of $N = 83,540$, the minimum required sample size was 425 students. The sample distribution across the selected PTKIN institutions is presented below:

Table 1. Population and sample distribution

PTKIN	Population Size	Sample Size
UIN Syarif Hidayatullah Jakarta	32249	187
UIN Sunan Gunung Djati Bandung	30491	177
UIN Sultan Maulana Hasanuddin Banten	10500	61
Total	73240	425

Var The study utilizes two types of variables: observed variables and latent variables. The latent variables are classified into two categories: an exogenous (independent) latent variable, namely Islamic Character Education, and an endogenous (dependent) latent variable, namely Environmentally Friendly Behavior (Green Campus). The operationalization of the variables is described as follows:

Table 2. Operationalization of variables

Variable	Dimension	Indicator
Islamic Character Education	Spiritual Dimension (Zainuddin, 2013)	Frequency of Worship
		Understanding of Religious Teachings
		Participation in Religious Activities
	Moral and Ethical Dimension (Syukri, 2017)	Practice of Good Character
		Responsibility
		Fairness and Justice
	Social Dimension (Suprayitno, 2018)	Participation in Social Activities
		Environmental Awareness and Concern
		Ability to Build Social Relationships
	Love of Knowledge Dimension (Arifin, 2014)	Learning Motivation
		Participation in Non-Formal Education
		Utilization of Time for Learning
Obedience and Compliance Dimension (Khairuddin, 2017)	Adherence to Religious Norms	
	Attitudes Toward Social Rules	
	Behavior Consistent with Islamic Teachings	
Green Campus Behavior (Kaiser & Wilson, 2004)	Environmental Awareness	Understanding Environmental Issues
		Responsible Use of Resources
		Participation in Environmental Education Activities
	Engagement in Environmentally Friendly Practices	Participation in Recycling Programs
		Involvement in Environmental Activities
		Use of Environmentally Friendly Products
	Environmentally Friendly Consumption Behavior	Use of Eco-Friendly Bags and Packaging
		Support for Organic Products
	Energy and Resource Utilization	Energy Conservation
		Utilization of Natural Energy Sources
	Support for Environmental Policies	Waste Reduction Policies
		Energy Use Policies
Environmentally Friendly Transportation Policies		

The statistical hypotheses tested in this study are as follows:

H₀= Islamic Character Education has no effect on Environmentally Friendly Behavior (Green Campus).

H₁= Islamic Character Education has an effect on Environmentally Friendly Behavior (Green Campus).

To examine the effect of the exogenous variable, namely Islamic Character Education, on the endogenous variable, Green Campus Behavior, this study

employs Structural Equation Modeling (SEM) using the Partial Least Squares (PLS) estimation approach. Data analysis was conducted using *SmartPLS 3* software.

Results and Discussion

A. Islamic character education among students in state Islamic Higher Education Institutions (PTKIN)

In the measurement model, the latent variable Islamic Character Education was measured through five dimensions: the spiritual dimension, moral and ethical dimension, social dimension, love of knowledge dimension, and obedience and compliance dimension, with a total of 30 questionnaire items. After conducting a Confirmatory Factor Analysis (CFA) using *SmartPLS* software, factor scores were obtained for each dimension. These factor scores were subsequently converted or rescaled to a 0-100 scale and classified into four categories, as explained in the previous chapter. The following section presents the findings regarding the measurement of the Islamic Character Education variable and its dimensions among students in PTKIN institutions in Indonesia.

The spiritual dimension was measured using three indicators represented by six questionnaire items. The following table presents the spiritual levels of students in assessing Islamic character education.

Table 3. Students' spiritual levels

Category	Frequency	Percentage
Very Low	23	5.41%
Low	205	48.24%
Good	81	19.06%
Very Good	116	27.29%
Total	425	100%

Based on Table 3, which illustrates the spiritual levels of PTKIN students, the majority fall into the Low category (48.24%) and the Very Low category (5.41%). This indicates that most students have not yet optimally integrated spiritual values into their daily lives. More specifically, spirituality was measured through adherence to both obligatory (*wajib*) and recommended (*sunnah*) religious practices. Interestingly, compliance with obligatory acts of worship, such as the five daily prayers, was found to be very high, whereas adherence to recommended practices, such as the Dhuha prayer, remained relatively low. This may be attributed to the fact that motivation for performing obligatory acts primarily stems from religious requirements, whereas engagement in sunnah practices often depends on encouragement and role modeling provided by

educators and university administrators (Fauzan et al., 2024; Jones & Menon, 2022). In addition, the demands of students' daily routines may contribute to the relatively low implementation of recommended religious practices (Mutalib et al., 2024).

The moral and ethical dimension was measured using three indicators represented by six questionnaire items. The following table presents students' moral and ethical levels in assessing Islamic character education.

Table 4. Students' moral and ethical levels

Category	Frequency	Percentage
Very Low	1	0.24%
Low	9	2.12%
Good	235	55.29%
Very Good	180	42.35%
Total	425	100%

Based on Table 4, the majority of PTKIN students fall into the good category (55.29%) and Very Good category (42.35%). These data indicate that most PTKIN students demonstrate positive moral and ethical behavior, particularly in relation to core values such as honesty, courtesy, and commitment to promises. High levels of morality and ethics are strongly influenced by students' religiosity (Falikah, 2024). Other factors that may shape students' moral and ethical conduct include the exemplary behavior of educators and the university environment (Shoumi & Alim, 2025; Suyadi et al., 2020). Furthermore, morality and ethics are influenced by moral reasoning, empathy toward others' circumstances, and habitual patterns of behavior (Narvaez, 2019).

The social activity dimension was measured using three indicators represented by six questionnaire items. The following table illustrates students' social activity levels in assessing Islamic character education.

Table 5. Students' social activity levels

Category	Frequency	Percentage
Very Low	16	3.76%
Low	230	54.12%
Good	63	14.82%
Very Good	116	27.29%
Total	425	100%

Based on Table 5, the social activity levels of PTKIN students are dominated by the Low category (54.12%) and the Very Low category (3.76%). These findings indicate that most students are not yet actively engaged in social activities, despite a significant proportion demonstrating a high degree of social awareness. This situation may be influenced by negative interpersonal behavior, depression,

and difficulties in social interaction (Sørli et al., 2021). The relationship between educators and students also significantly affects individuals' levels of social engagement (Berry & O'Connor, 2010). Additionally, low social participation may result from a lack of social skills training (Bijstra & Jackson, 1998).

The love of knowledge dimension was measured using three indicators represented by six questionnaire items. The following table presents students' levels of love of knowledge in assessing Islamic character education.

Table 6. Students' love of knowledge levels

Category	Frequency	Percentage
Very Low	7	1.65%
Low	212	49.88%
Good	74	17.41%
Very Good	132	31.06%
Total	425	100%

Based on Table 6, the love of knowledge among PTKIN students indicates that more than half fall into the Low category (49.88%), while 1.65% are in the Very Low category. These findings suggest that many students have not yet developed an optimal interest in intellectual development, although a substantial group exhibits a strong appreciation for learning. This dimension is influenced by academic achievement, student well-being, learning engagement, and autonomy support provided by educators (Howard et al., 2021). Social context also plays an important role. Individuals living in educational cities tend to demonstrate a stronger love of knowledge than those residing in industrial cities or rural areas (Ryan & Deci, 2020). Furthermore, curriculum design and instructional approaches can significantly influence students' enthusiasm for learning (Y. Wang et al., 2024).

The obedience and compliance dimension was measured using three indicators represented by six questionnaire items. The following table illustrates students' levels of obedience and compliance.

Table 7. Students' obedience and compliance levels

Category	Frequency	Percentage
Very Low	7	1.65%
Low	212	49.88%
Good	74	17.41%
Very Good	132	31.06%
Total	425	100%

Based on Table 7, more than half of PTKIN students are categorized as Low in obedience and compliance (52.47%), while 0.47% are classified as Very Low. These findings suggest that many students have not yet achieved an optimal level

of compliance, despite a substantial proportion exhibiting high adherence to religious teachings and societal norms. One contributing factor is insufficient supervision. For example, cheating during examinations is more likely to occur when educators are absent from the examination environment (Chiang et al., 2022), although such behavior ultimately reflects low personal integrity (Sozon et al., 2024). Therefore, self-motivation and environmental norms play a crucial role in shaping levels of obedience and compliance (Arellano et al., 2024).

Based on the five dimensions above, the overall level of Islamic character education among PTKIN students can be described as follows.

Table 8. Level of Islamic character education among PTKIN students

Category	Frequency	Percentage
Very Low	2	0.47%
Low	102	24.00%
Good	193	45.41%
Very Good	128	30.12%
Total	425	100%

Based on Table 8, the level of Islamic character education among PTKIN students is predominantly categorized as Good (45.41%), followed by Very Good (30.12%). A smaller proportion falls into the Low category (24.00%), while only 0.47% are classified as Very Low. These findings indicate that most PTKIN students possess a relatively strong foundation in Islamic character education, although some students still require additional reinforcement in this area.

Further analysis reveals a close relationship between the level of Islamic character education and the dimensions of spirituality, morality and ethics, social engagement, love of knowledge, and obedience and compliance. Students with higher levels of Islamic character education tend to exhibit more positive moral and ethical behavior. However, among those categorized as having a low level of Islamic character education, obedience and compliance, as well as love of knowledge, emerge as areas requiring particular attention. Some students have not yet fully integrated Islamic values into their daily lives, particularly in the areas of social engagement and value-based learning activities.

The finding that most students fall into the low category for spirituality also contributes to variations in overall Islamic character education levels. Limited engagement in recommended religious practices (sunnah), participation in religious communities, and the application of Islamic values in everyday social interactions indicate substantial room for improvement. Although most students achieve good or very good levels in morality and ethics, this suggests that they tend to be stronger in interpersonal dimensions than in practicing religious teachings within a broader community context.

The relatively weak spiritual dimension, particularly concerning the performance of sunnah worship, involvement in religious communities, and the implementation of Islamic values in social life, can be strengthened through collective habituation programs in educational institutions. Such initiatives may include scheduled congregational *Dhuha* prayers, congregational *Dhuhr* and *Asr* prayers, *Tahsin* and *Tahfizh* programs, greeting and showing respect to teachers, Friday charity programs, and other similar activities (Kafa et al., 2025).

B. Green campus behavior among PTKIN students

In the measurement model, the latent variable Green Campus Behavior was measured through five dimensions: environmental awareness, involvement in environmentally friendly practices, environmentally friendly consumption behavior, energy and resource use, and support for environmental policies, with a total of 23 questionnaire items. Following the application of Confirmatory Factor Analysis (CFA) using *SmartPLS* software, factor scores were obtained for each dimension. These factor scores were subsequently converted or rescaled to a 0-100 scale and classified into four categories, as described in the previous chapter. The following section presents the findings regarding the measurement of the Green Campus variable and its dimensions among students in State Islamic Higher Education Institutions (PTKIN) in Indonesia. The environmental awareness dimension was measured using three indicators represented by five questionnaire items. The following table presents students' environmental awareness levels in measuring Green Campus behavior.

Table 9. Students' environmental awareness levels

Category	Frequency	Percentage
Very Low	7	1.65%
Low	78	18.35%
Good	235	55.29%
Very Good	105	24.71%
Total	425	100%

Based on Table 9, which presents the environmental awareness levels of PTKIN students, the majority of students fall into the good category (55.29%) and the Very Good category (24.71%). These findings indicate that most students possess a fairly strong level of environmental awareness, although a substantial proportion still requires improvement. This condition may be attributed to environmental education experiences and stronger intrinsic motivation among students who voluntarily participate in environmental education programs at the university level (Aldawsari et al., 2025; Zsóka et al., 2013). However, Ningrum & Herdiansyah (2018) argued that environmental education, as reflected by previous educational attainment, does not significantly influence environmental

awareness. Instead, gender and place of residence are considered more influential factors. Female students tend to exhibit higher environmental awareness than male students, while students from rural areas demonstrate greater environmental awareness than those from urban areas. The relatively cleaner environmental conditions in rural communities have been found to significantly influence residents' environmental awareness (Berenguer et al., 2005). The involvement in environmentally friendly practices dimension was measured using two indicators represented by five questionnaire items. The following table presents students' levels of engagement in environmental practices.

Table 10. Students' involvement in environmental practices

Category	Frequency	Percentage
Very Low	4	0.94%
Low	62	14.59%
Good	245	57.65%
Very Good	114	26.82%
Total	425	100%

Based on Table 10, the majority of PTKIN students fall into the good category (57.65%) and the Very Good category (26.82%). These findings suggest that most students actively engage in environmentally friendly practices, although a small proportion remains insufficiently involved. While environmental education contributes to this outcome, the effect of environmental education alone may not be sufficiently significant in promoting active environmental practices (Zsóka, 2008). Key factors influencing adolescents' engagement in environmental practices can be categorized into demographic, internal, and external factors. The most influential factor is the existence of environmental norms within the university setting (Bhattarai et al., 2024). Nevertheless, external considerations such as cost and efficiency also significantly affect students' participation in environmentally responsible practices (Baran & Sypniewska, 2024; Shafiei & Maleksaeidi, 2020). The environmentally friendly consumption behavior dimension was measured using two indicators represented by five questionnaire items. The following table illustrates students' environmentally friendly consumption behavior.

Table 11. Students' environmentally friendly consumption behavior

Category	Frequency	Percentage
Very Low	5	1.18%
Low	38	8.94%
Good	255	60.00%
Very Good	127	29.88%
Total	425	100%

Based on Table 11, the majority of PTKIN students fall into the good category (60.00%) and the Very Good category (29.88%). These findings indicate that most students demonstrate positive environmentally friendly consumption behavior, although a small proportion still requires improvement. Such behavior is influenced by environmental knowledge (L. Wang et al., 2020), consumers' attitudes, environmental concern, subjective norms, and perceived consumer effectiveness (Wijekoon & Sabri, 2021). In addition, trust in information provided through labels, certifications, and advertisements of environmentally friendly products may also influence environmentally responsible consumption behavior (Kikuchi-Uehara et al., 2016). Conversely, the relatively higher prices of environmentally friendly products compared to conventional alternatives often discourage consumers from adopting green consumption practices (Baran & Sypniewska, 2024; Shafiei & Maleksaeidi, 2020). Limited availability of environmentally friendly products also presents a challenge for consumers (Gleim et al., 2013). The energy and resource use dimension was measured using two indicators represented by five questionnaire items. The following table presents students' levels of energy and resource utilization.

Table 12. Students' energy and resource use levels

Category	Frequency	Percentage
Very Low	7	1.65%
Low	208	48.94%
Good	53	12.47%
Very Good	157	36.94%
Total	425	100%

Based on Table 12, the majority of PTKIN students fall into the Low category (48.94%) and the Very Low category (1.65%). These findings indicate that although some students exhibit environmentally responsible behavior, most still demonstrate insufficient awareness regarding energy and resource conservation. This situation may be attributed to limited environmental knowledge and awareness (Nguyen et al., 2026). Furthermore, inadequate institutional support, including insufficient social environments, physical facilities, educational initiatives, and behavioral culture, contributes to weak energy conservation practices (Fachrudin & Fachrudin, 2021). Differences between university environments and students' living environments, such as homes, boarding houses, and dormitories, further influence energy-use behaviors (Fauzi et al., 2024). Social conditions outside the university that do not support conservation efforts also significantly contribute to low levels of energy-saving behavior (Al Mamun et al., 2022).

The support for environmental policy dimension was measured using two indicators represented by five questionnaire items. The following table presents students' support for environmentally friendly policies.

Table 13. Students' support for environmentally friendly policies

Category	Frequency	Percentage
Very Low	7	1.65%
Low	208	48.94%
Good	53	12.47%
Very Good	157	36.94%
Total	425	100%

Based on Table 13, the majority of PTKIN students fall into the Low category (56.00%) and the Very Low category (1.18%). These findings indicate that most students demonstrate less-than-optimal support for environmental policies implemented by their universities, although a group of students exhibit very strong support. One reason for this may be the lack of role modeling from institutional leaders and policymakers themselves, whether through behavior, communication, or educational delivery, resulting in limited student support for environmental initiatives (van de Wetering et al., 2022). Policies that are not accompanied by adequate facilities and infrastructure also present challenges and may reflect institutional unpreparedness to implement environmentally friendly policies effectively (Ahmad et al., 2023). Another factor contributing to low support is the limited involvement of stakeholders, including students, who are among the primary actors within higher education institutions. Environmental knowledge and sustainability education should be translated into policies formulated through inclusive participation involving all relevant stakeholders (Portus et al., 2024). Based on the five dimensions discussed above, the overall level of Green Campus behavior among PTKIN students can be described as follows.

Table 14. Green campus behavior levels of PTKIN students

Category	Frequency	Percentage
Very Low	6	1.41%
Low	217	51.06%
Good	96	22.59%
Very Good	106	24.94%
Total	425	100%

Based on Table 14, the level of Green Campus behavior among PTKIN students is predominantly classified as Low (51.06%, or 217 respondents) and Very Low (1.41%, or 6 respondents). In contrast, 22.59% (96 respondents) fall into the good category, while 24.94% (106 respondents) are categorized as Very Good.

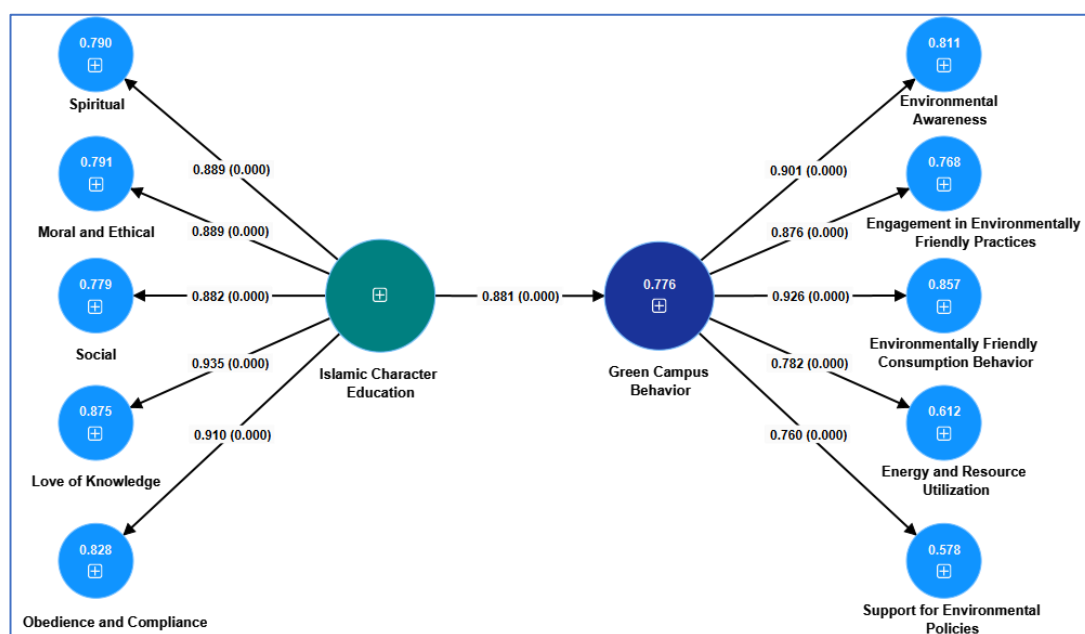
These findings indicate that most students have not yet fully optimized Green Campus-oriented behaviors, although a considerable proportion already demonstrate positive environmental behavior.

The Green Campus behavior of students can be further understood through the five supporting dimensions discussed above. In terms of environmental awareness, most students fall into the good category (55.29%) and the Very Good category (24.71%). Nevertheless, 18.35% of students exhibit low environmental awareness, which influences overall environmental behavior. The dimension of involvement in environmentally friendly practices shows relatively high participation, with 57.65% of students categorized as Good and 26.82% as Very Good. However, in the dimension of energy and resource use, approximately 48.94% of students fall into the Low category, indicating the need for further education on energy conservation and efficient resource utilization. Meanwhile, in the environmentally friendly consumption behavior dimension, 60.00% of students are categorized as Good, reflecting consumption habits that increasingly support sustainability. The final dimension, support for environmental policies, is dominated by the Low category (56.00%), indicating limited student participation in the implementation of environmentally friendly campus policies.

The relatively low level of Green Campus behavior may be influenced by several factors. First, insufficient campus environmental facilities, such as recycling stations, electric-vehicle-based transportation systems, and renewable energy infrastructure, limit students' opportunities to engage in environmentally friendly behavior. Second, the limited integration of environmental education into university curricula prevents students from acquiring a comprehensive understanding of the importance of Green Campus behavior. Third, environmental campaigns have not yet been implemented on a sufficiently large scale, resulting in low levels of collective environmental awareness among students

C. The influence of Islamic character education on green campus behavior

After describing each latent variable, namely Islamic Character Education and Green Campus Behavior, the next step is to analyze the influence of the exogenous latent variable, Islamic Character Education, on Green Campus Behavior among students in PTKIN institutions. The following path diagram, obtained from the data analysis, illustrates the relationship between the two variables.



Source: Author's Analysis

Figure 1. Structural Model Path Diagram of the Latent Variables

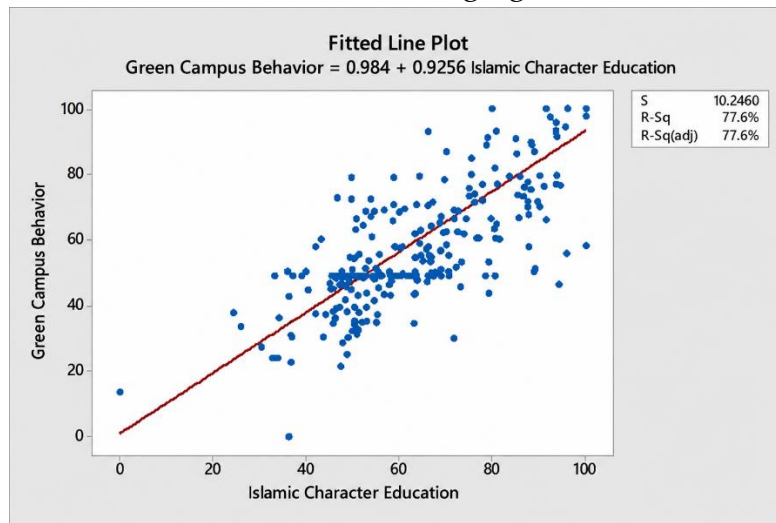
Based on the results above, hypothesis testing was conducted to examine the effect of the exogenous latent variable on the endogenous latent variable and to determine the extent to which Islamic Character Education Influences Green Campus Behavior. The results of the hypothesis testing are presented below.

Table 15. Path coefficient hypothesis testing

Research Hypothesis	Hypothesis	Path Coefficient	P-value	Decision	Conclusion
Effect of Islamic Character Education on Green Campus Behavior	H ₀ : $\gamma = 0$ H ₁ : $\gamma > 0$	$\gamma = 0.881$	0.000	H ₀ Ditolak	Significant positive effect

Based on the hypothesis testing results presented in Table 15, the hypothesis examined was the effect of Islamic Character Education on Green Campus Behavior. The null hypothesis (H₀) states that there is no effect ($\gamma = 0$), while the alternative hypothesis (H₁) proposes a positive effect ($\gamma > 0$). The results show that the path coefficient (γ) is 0.881, indicating that Islamic Character Education exerts a very strong influence on Green Campus Behavior. Furthermore, the p-value of 0.000 is substantially lower than the significance level of 0.05, allowing the null hypothesis to be rejected and the alternative hypothesis to be accepted. This result provides sufficient evidence to conclude that Islamic Character Education has a positive and significant effect on Green Campus Behavior. Therefore, the stronger the implementation of Islamic Character Education, the greater its positive influence on environmentally responsible behavior on

campus. The relationship between Islamic Character Education and Green Campus Behavior is illustrated in the following figure:



Source: Author's Analysis

Figure 2. Scatter Plot of the Relationship Between Islamic Character Education and Green Campus Behavior

The distribution of data points in the scatter plot exhibits a generally linear pattern, with most observations clustered around the regression line. This indicates that the relationship between the two variables is relatively consistent. However, several observations deviate considerably from the regression line, suggesting the existence of individuals or groups whose Green Campus behavior is either lower or higher than predicted based on their level of Islamic Character Education. The distribution also demonstrates sufficient variation across the entire range of Islamic Character Education scores, indicating that the relationship is not limited to a particular subgroup but is broadly applicable across the student population.

These findings differ from several previous studies that concluded that religious character does not significantly influence environmentally friendly behavior. Arli et al. (2023), for example, found that religious individuals tend to be less committed to environmental and climate-change issues, whereas non-religious individuals or atheists often demonstrate stronger commitments to environmentally responsible behavior. Similarly, Zarate-Torres et al. (2025) reported that spirituality has only a weak influence on environmentally friendly behavior, implying that additional factors are required to enhance pro-environmental actions. Other studies have suggested that religious character influences environmentally friendly behavior only indirectly through mediating variables, while some direct pathways, particularly those related to extrinsic religiosity, were found to be insignificant (S. Wang et al., 2020).

In contrast, the present findings support previous studies demonstrating that character education, particularly education grounded in religious values, can promote greater environmental responsibility. Abdullah et al. (2021) argued that Islamic character education can be integrated into efforts to increase environmentally friendly behavior among university students through values such as responsibility for protecting nature, moderation and avoidance of excess, and environmental cleanliness. Karimi et al. (2022) further emphasized that spirituality functions as a form of social pressure that influences pro-environmental intentions and behaviors within society. In collectivist cultures, social expectations contribute significantly to environmentally responsible intentions. Religious individuals tend to show greater concern for others and stronger altruistic tendencies, thereby increasing social pressure to engage in environmentally friendly behavior.

Values derived from an individual's religious character shape attitudes toward ecology, intentions to preserve nature, sustainable consumption practices, and participation in recycling activities. This helps explain the relationship between religious character and environmental conservation beliefs, which form the foundation of guiding principles for sustainable behavior (Hasanadka et al., 2026). Religious character has also been identified as a significant predictor of pro-environmental behavior, particularly among university students (Sa'id et al., 2024).

Islamic character education is also reflected in individuals' understanding of religious teachings, including principles related to environmental cleanliness and health. Religious teachings serve as a moral foundation and source of ethical awareness for promoting ecological responsibility within Islamic higher education institutions (Fatihunnada et al., 2025).

The integration of environmentally friendly policies with Islamic character values represents a distinctive characteristic of Islamic higher education institutions. Therefore, Islamic educational institutions and relevant policy-making agencies should strengthen and enhance Islamic character education through curriculum development, dissemination of educational materials, supportive programs and activities, and continuous evaluation. Such efforts are expected to become a key factor in improving Green Campus behavior among students in Islamic higher education institutions

Conclusion

This study demonstrates that Islamic Character Education has a positive and significant effect on the Green Campus behavior of students in State Islamic Higher Education Institutions (PTKIN). Although the overall level of students'

Islamic Character Education falls within the good category, Green Campus behavior is still predominantly categorized as low, indicating a gap between the understanding of values and the actual implementation of environmentally friendly behavior. The analysis results show that the higher the level of students' Islamic Character Education, the greater their tendency to engage in environmentally responsible behavior, with an explanatory contribution of 77.6%. These findings confirm that Islamic Character Education is an important factor in the transformation of Green Campus behavior. Therefore, strengthening spirituality, obedience, and the internalization of Islamic values should be carried out continuously to foster a campus culture that is more environmentally conscious and committed to sustainability.

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