



# Leading Ecological Conversion in Higher Education: The Influence of Catholic Lecturers' Leadership on Students' Pro-Environmental Behavior

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## ABSTRACT:

The ecological crisis has increasingly challenged higher education institutions to play a transformative role in cultivating environmentally responsible citizens. Within the context of Catholic higher education, the concept of ecological conversion, strongly emphasized in Catholic social teaching, particularly in *Laudato Si'*, encourages educators to foster moral responsibility toward environmental stewardship. However, empirical studies examining how lecturers' leadership grounded in Catholic values may influence students' pro-environmental behavior remain limited. This study aims to examine the potential effect of Catholic lecturers' leadership on students' pro-environmental behavior in higher education. Drawing on leadership theory, environmental psychology, and value-based education, the study proposes a conceptual framework in which Catholic lecturers' leadership—characterized by ethical guidance, ecological awareness, and faith-inspired moral commitment—serves as a key predictor of students' pro-environmental behavior. The model assumes that lecturers not only transmit knowledge but also shape students' environmental attitudes and actions through value-oriented leadership practices embedded in teaching, mentoring, and academic culture. The study also considers the possibility that students' internal psychological factors, such as environmental values or ecological awareness, may mediate the relationship between lecturers' leadership and students' behavioral outcomes. Methodologically, this research is designed as a quantitative explanatory study using survey data collected from undergraduate students at Catholic higher education institutions ( $n = 89$ ). Path analysis is used to test the hypothesized relationships between lecturers' leadership and students' pro-environmental behavior mediated by ecological conversion. It was found that Catholic lecturers' leadership and ecological conversion directly and significantly affected students' pro-environmental behavior (PEB), including that ecological conversion was affected directly and significantly by Catholic lecturers' leadership. However, ecological conversion was not a good mediated factor. These findings may provide empirical insights into how faith-based leadership in educational contexts contributes to the development of environmentally responsible behaviors among students. The study is expected to contribute to the literature on ecological leadership, environmental education, and faith-based higher education by offering a novel framework linking Catholic lecturers' leadership with ecological conversion among students. Practically, the findings may inform institutional strategies for integrating ecological values into teaching and leadership practices to strengthen universities' contributions to sustainable development.

**Keywords:** Catholic lecturers' leadership, ecological conversion, pro-environmental behavior, higher education, environmental values.

## 1. INTRODUCTION

Environmental degradation has become one of the most serious global challenges in the twenty-first century. Problems such as climate change, biodiversity loss, pollution, and unsustainable consumption patterns increasingly threaten ecological balance and human well-being. Scholars widely recognize that these environmental problems are closely related to human behavior. As Steg and Vleck (2009) emphasize, “environmental problems largely result from human behavior” (p. 309), meaning that meaningful environmental improvement requires behavioral change at the individual and societal levels. Consequently, promoting pro-environmental behavior (PEB) has become a central focus in sustainability research and environmental education.

Pro-environmental behavior refers to actions that intentionally seek to minimize negative environmental impacts or contribute to environmental sustainability. Kollmuss and Agyeman (2002) define pro-environmental behavior as “behavior that consciously seeks to minimize the negative impact of one's actions on the natural and built world” (p. 240). Such behaviors may include conserving energy, reducing waste, supporting environmental policies, and adopting sustainable lifestyles. These behaviors are essential for achieving sustainable development goals because environmental sustainability cannot be achieved solely through technological solutions without corresponding changes in human attitudes and behavior. Stern (2000) similarly notes that environmentally significant behavior refers to “behavior that has impacts on the environment” (p. 408), highlighting the critical role of individual actions in shaping environmental outcomes.

Universities play a crucial role in promoting environmental awareness and shaping sustainable behavior among younger generations. Higher education institutions are expected not only to produce academically competent graduates but also individuals who are environmentally responsible citizens. As Filho et al. (2019) explain, “higher education institutions play a key role in

promoting sustainable development through education, research, and community engagement” (p. 1). In this context, university students represent an important target group for sustainability education because they are future leaders, professionals, and decision-makers who will influence environmental policies and practices. Environmental education within higher education, therefore, becomes a strategic platform for cultivating pro-environmental attitudes and behaviors.

However, research has consistently shown that environmental awareness does not always translate into pro-environmental behavior. This phenomenon, often referred to as the attitude–behavior gap, indicates that individuals who express concern about environmental issues do not necessarily act accordingly. Kollmuss and Agyeman (2002) argue that “there is a gap between environmental knowledge and awareness on the one hand and environmental behavior on the other” (p. 239). This gap suggests that environmental behavior is influenced not only by knowledge but also by psychological, social, and contextual factors.

Among the contextual factors influencing environmental behavior, leadership has been recognized as an important determinant. Leadership can shape organizational culture, influence values, and motivate individuals to adopt environmentally responsible practices. Robertson and Barling (2013) highlight that leaders who demonstrate environmental commitment can encourage followers to engage in environmentally responsible actions, noting that “leaders can influence employees’ environmental behaviors through modeling and support for environmental initiatives” (p. 176). Through role modeling, communication, and value transmission, leadership plays an important role in shaping pro-environmental norms within organizations and educational institutions.

In higher education settings, lecturers play a strategic leadership role in shaping students’ knowledge, attitudes, and values. Lecturers not only transfer academic knowledge but also serve as role models who influence students’ perspectives and behaviors. According to Bandura (1986), social learning theory explains that individuals learn behaviors by observing others, emphasizing that “most human behavior is learned observationally through modeling” (p. 47). This perspective suggests that students may adopt environmentally responsible behaviors when lecturers demonstrate environmental commitment and ecological values in their teaching and daily practices.

In faith-based educational institutions, leadership influence may be further strengthened by moral and spiritual values embedded within religious teachings. Many religious traditions emphasize stewardship of nature and ethical responsibility toward creation. Within the Catholic tradition, environmental responsibility is articulated through the concept of ecological conversion, which calls for a transformation in how humans relate to the natural world. Pope Francis (2015) stresses that environmental problems require deep moral transformation, stating that “the ecological crisis is also a summons to profound interior conversion” (*Laudato Si’*, para. 217). Ecological conversion involves recognizing the intrinsic value of creation and fostering a renewed commitment to protecting the environment.

Furthermore, Pope Francis (2015) emphasizes that environmental responsibility must be reflected in everyday behavior, noting that “living our vocation to be protectors of God’s handiwork is essential to a life of virtue” (*Laudato Si’*, para. 217). This perspective highlights the importance of integrating ecological values into education, particularly in Catholic higher education institutions where faith and moral values are integral to the educational mission. When lecturers embody ecological leadership inspired by these values, they may encourage students to internalize environmental responsibility and translate it into pro-environmental behavior.

Despite growing interest in pro-environmental behavior, most studies have focused primarily on psychological determinants such as attitudes, environmental values, norms, and environmental awareness. For example, Stern (2000) explains that environmental behavior is strongly influenced by values, beliefs, and personal norms, stating that “values influence beliefs, which in turn influence personal norms and behavior” (p. 413). While these perspectives provide important insights, relatively limited research has examined how leadership within educational contexts—particularly faith-based leadership—affects students’ pro-environmental behavior.

Moreover, empirical studies linking lecturer leadership, ecological conversion, and students’ pro-environmental behavior remain scarce, especially within Catholic higher education contexts. Existing research has largely focused on environmental education programs or psychological determinants of environmental behavior rather than leadership influence rooted in religious ecological ethics. This indicates an important research gap in understanding how leadership inspired by ecological and spiritual values can shape students’ environmental behaviors.

## 2. STATE OF THE ART

Recent research on pro-environmental behavior has increasingly integrated interdisciplinary perspectives combining psychological, social, and institutional factors. Studies using frameworks such as the Theory of Planned Behavior (TPB) and the Value-Belief-Norm (VBN) theory have demonstrated that environmental attitudes, norms, and perceived behavioral control significantly influence pro-environmental behavior. Ajzen (1991) explains that “intentions are assumed to capture the motivational factors that influence behavior” (p. 181), highlighting the role of cognitive and motivational processes in shaping environmental actions.

In addition, emerging studies have begun to explore the role of leadership in promoting environmental responsibility within organizations and educational institutions. Robertson and Barling (2013) argue that leadership behaviors can significantly influence followers’ environmental actions through role modeling and support for sustainability initiatives. However, despite these developments, research integrating leadership, environmental ethics, and religious-based ecological transformations, such as ecological conversion, remains limited.

Therefore, this study contributes to the literature by examining the role of Catholic lecturers’ leadership in influencing students’ pro-environmental behavior as a manifestation of ecological conversion in higher education. By integrating perspectives from environmental psychology, educational leadership, and Catholic ecological ethics, this research offers a novel framework for understanding how faith-based leadership can promote environmental responsibility among university students.

### 3. RESEARCH OBJECTIVES

Given the increasing urgency of global environmental challenges and the strategic role of higher education in shaping future generations, understanding the factors that promote pro-environmental behavior among university students has become increasingly important. While previous studies have highlighted the roles of environmental attitudes, values, and norms, limited attention has been given to the influence of lecturer leadership in fostering environmental responsibility among students, particularly within faith-based higher education contexts.

In Catholic universities, lecturers are not only educators but also moral and spiritual leaders who play a significant role in shaping students' ethical perspectives and social responsibility. Through their leadership practices, lecturers may inspire students to develop ecological awareness and adopt environmentally responsible behaviors as part of a broader process of ecological conversion. As Pope Francis (2015) emphasizes, environmental responsibility requires not only knowledge but also "a new way of thinking about human beings, life, society and our relationship with nature" (Laudato Si', para. 215).

Therefore, this study aims to examine the influence of Catholic lecturers' leadership on students' pro-environmental behavior as a manifestation of ecological conversion in higher education. By investigating this relationship, the study seeks to contribute to the growing literature on sustainability education and leadership while providing new insights into how faith-based ecological values can be integrated into higher education practices to promote environmental responsibility among students.

### 4. CONCEPTUAL FRAMEWORK

Understanding students' pro-environmental behavior requires an integrative framework that considers both individual psychological factors and contextual influences within educational environments. Pro-environmental behavior is shaped not only by personal attitudes and environmental values but also by social influences and institutional leadership that guide individuals' behavioral norms. Stern (2000) explains that environmentally significant behavior is influenced by a complex chain of variables in which "values influence beliefs, which in turn shape personal norms and behavioral intentions" (p. 413). This perspective suggests that environmental behavior is not merely an outcome of individual awareness but also the result of social and institutional processes that shape individuals' environmental values and motivations.

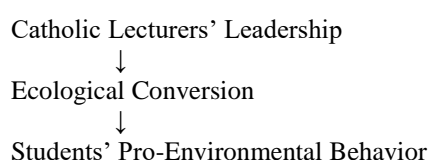
Within educational contexts, leadership represents one of the most influential contextual factors shaping students' attitudes and behaviors. Leadership can create a learning environment that promotes sustainability values, environmental awareness, and responsible behavior. According to Robertson and Barling (2013), leaders play a critical role in encouraging environmentally responsible actions because "leaders can influence followers' environmental behaviors through modeling and support for environmental initiatives" (p. 176). In higher education institutions, lecturers function not only as knowledge transmitters but also as influential role models whose values, attitudes, and behaviors can shape students' perspectives and actions.

The influence of lecturer leadership on students' behavior can be further explained through social learning theory. Bandura (1986) argues that individuals acquire new behaviors by observing and imitating the actions of others, emphasizing that "most human behavior is learned observationally through modeling" (p. 47). When lecturers demonstrate ecological awareness, environmentally responsible practices, and sustainability-oriented leadership, students may internalize these values and adopt similar behaviors in their daily lives. In this sense, lecturers' leadership can serve as a mechanism through which environmental values are transmitted and reinforced within academic communities.

In the context of Catholic higher education, the influence of leadership on environmental behavior is closely related to the concept of ecological conversion. Catholic social teaching emphasizes moral responsibility toward the environment and calls for a transformation in human attitudes and lifestyles toward nature. Pope Francis (2015) stresses that environmental challenges require not only technological solutions but also moral and spiritual transformation, noting that "the ecological crisis is also a summons to profound interior conversion" (Laudato Si', para. 217). Ecological conversion refers to a renewed awareness of humanity's responsibility to protect creation and to develop lifestyles that reflect respect for the natural environment.

When Catholic lecturers embody ecological values through their leadership practices, they may inspire students to develop ecological awareness and translate these values into concrete environmental actions. Leadership grounded in ecological responsibility can therefore foster students' pro-environmental behavior by encouraging ethical reflection, environmental stewardship, and responsible decision-making. As Pope Francis (2015) further emphasizes, environmental responsibility requires recognizing that "living our vocation to be protectors of God's handiwork is essential to a life of virtue" (Laudato Si', para. 217). This moral perspective strengthens the role of faith-based leadership in shaping environmentally responsible behavior among students.

Based on these theoretical perspectives, this study proposes that Catholic lecturers' leadership plays a significant role in shaping students' pro-environmental behavior through the internalization of ecological values and the process of ecological conversion. By integrating insights from environmental psychology, social learning theory, and Catholic ecological ethics, the conceptual framework of this study explains how leadership within higher education institutions can contribute to the development of environmentally responsible behavior among university students. Its hypothetical model is as follows.



The conceptual model proposes that Catholic lecturers' leadership influences students' pro-environmental behavior both directly and indirectly through ecological conversion. Leadership behaviors that demonstrate environmental responsibility may encourage students to internalize ecological values, leading to a transformation of attitudes and lifestyles toward environmental stewardship. This process reflects ecological conversion, which subsequently promotes students' pro-environmental behavior. Therefore, research hypotheses could be formulated as follows.

## 5. RESEARCH HYPOTHESES STRUCTURE

H1: Catholic lecturers' leadership directly affects ecological conversion.

H2: Ecological conversion directly affects students' pro-environmental behavior.

H3: Catholic lecturers' leadership directly affects students' pro-environmental behavior.

H4: Catholic lecturers' leadership indirectly affects students' pro-environmental behavior, mediated by ecological conversion.

## 6. CONCEPTUAL MODEL EXPLANATION

The conceptual model of this study is developed to explain how Catholic lecturers' leadership influences students' pro-environmental behavior (PEB) as a manifestation of ecological conversion in higher education. The model assumes that leadership within educational environments plays a critical role in shaping students' environmental awareness, values, and behaviors through processes of value transmission, social learning, and moral influence.

**First**, the model proposes that Catholic lecturers' leadership serves as the primary contextual driver influencing students' environmental behavior. Leadership in educational contexts involves not only academic instruction but also the transmission of ethical values and social responsibility. Leaders who demonstrate environmental commitment and sustainability-oriented practices can inspire followers to adopt similar behaviors. Robertson and Barling (2013) emphasize that leaders can influence environmental actions because "leaders can influence followers' environmental behaviors through modeling and support for environmental initiatives" (p. 176). In the context of higher education, lecturers function as role models whose behaviors and values can shape students' environmental attitudes and behavioral intentions.

**Second**, the model assumes that the influence of lecturer leadership operates through the internalization of ecological values among students, which reflects the process of ecological conversion. Ecological conversion refers to a transformation of attitudes, perspectives, and lifestyles toward a deeper ecological responsibility. According to Pope Francis (2015), addressing environmental problems requires a fundamental change in human attitudes, stating that "the ecological crisis is also a summons to profound interior conversion" (Laudato Si', para. 217). Within Catholic higher education, lecturers who embody ecological responsibility may encourage students to reflect on their moral relationship with nature and develop a stronger commitment to environmental stewardship.

**Third**, the model integrates social learning theory to explain how leadership behaviors influence students' actions. Social learning theory suggests that individuals learn behaviors through observation and imitation of role models within their social environment. Bandura (1986) explains that "most human behavior is learned observationally through modeling" (p. 47). In classroom environments, students observe lecturers' attitudes, teaching approaches, and environmental practices, which may shape their own beliefs and behavioral tendencies toward environmental issues.

**Fourth**, the conceptual model assumes that these processes ultimately lead to the development of students' pro-environmental behavior, which represents concrete actions aimed at protecting the environment. Pro-environmental behavior includes activities such as energy conservation, recycling, environmental advocacy, and participation in sustainability initiatives. Stern (2000) explains that environmentally significant behavior refers to "behavior that has impacts on the environment" (p. 408), highlighting the importance of individual actions in addressing environmental challenges.

Therefore, the conceptual model proposes that Catholic lecturers' leadership influences students' pro-environmental behavior by encouraging ecological awareness, ethical reflection, and environmental responsibility among students. Through the integration of leadership influence, ecological conversion, and social learning processes, the model provides a theoretical explanation of how faith-based leadership within higher education institutions can contribute to environmental sustainability.

Based on this conceptual framework, the study proposes several research hypotheses that examine the relationship between Catholic lecturers' leadership and students' pro-environmental behavior within the context of ecological conversion.

## 7. RESEARCH METHODOLOGY

Based on the formulation of the research hypothesis, the appropriate type of research is quantitative through survey methods. The sample was selected purposively from a number of students at several campuses in Jakarta, namely those who adhere to the Catholic religion. Then they were randomly selected again as many as 89 students. There were three instruments developed to measure catholic lecturers' leadership styles (reliability of .97), PEB (.87), and ecological conversion (.79). All instruments were tested for item validity and reliability coefficients. The data was then analyzed using path analysis after first testing all the requirements.

## 8. RESEARCH RESULTS

As can be seen in tables 1, 2, and 3 below, factors such as Catholic Lecturers' Leadership and Ecological conversion have a significant direct effect on students' pro-environmental behavior (PEB) with path coefficients of .393 and .234, respectively. Likewise, the indirect effect of Catholic Lecturers' Leadership on students' PEB through ecological conversion was found to be .091 which turned out to be not significant. This indicates that ecological conversion, in this context, is not a suitable mediator.

Table 1. Effect of Leadership on Ecological Conversion

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
	B	Std. Error	Beta	t		Zero-order	Partial	Part
(Constant)	32.769	8.908		3.679	.000			
X1	.482	.075	<b>.565</b>	6.386	.000	.565	.565	.565

Dependent Variable: X2

Table 2. Effect of Ecological Conversion on Students' PEB

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	73.713	8.367		8.810	.000			
	X2	.209	.093	<b>.234</b>	2.241	.028	.234	.234	.234

Dependent Variable: X3

Table 3. Effect of Leadership on Students' PEB

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations		
		B	Std. Error	Beta	t		Zero-order	Partial	Part
1	(Constant)	57.093	8.873		6.435	.000			
	X1	.300	.075	<b>.393</b>	3.990	.000	.393	.393	.393

Dependent Variable: X3

Therefore, an empirical path model could be drawn as follows

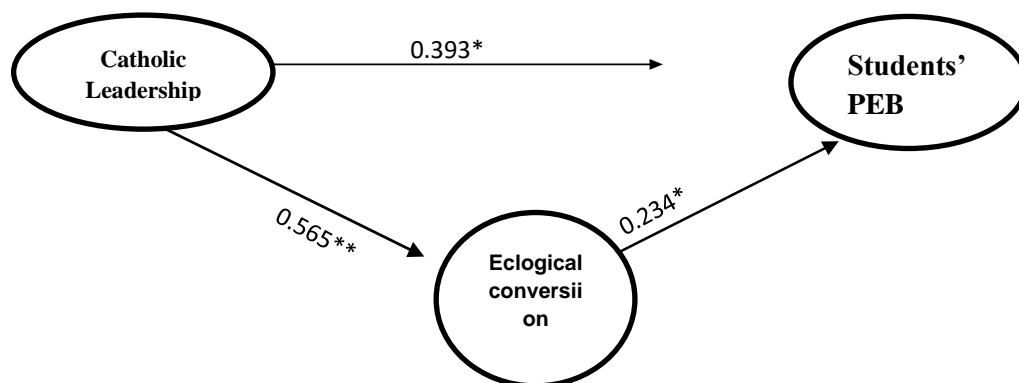


Figure: Empirical Structural Model

\* P < 0.05

## 9. INTERPRETATION AND DISCUSSION OF FINDINGS

The results of the structural path analysis show that all four hypotheses in this study are statistically significant. These findings indicate that Catholic lecturers' ecological leadership plays a meaningful role in shaping students' pro-environmental behavior (PEB) in higher education contexts. Pro-environmental behavior refers to actions that consciously seek to minimize negative impacts on the natural environment and promote sustainability (Kollmuss & Agyeman, 2002; Stern, 2000; Putrawan, 2025).

The significant effect of Catholic lecturers' ecological leadership on students' pro-environmental behavior suggests that leadership within educational institutions can function as a moral and behavioral role model for environmental responsibility. Leadership behaviors that emphasize ecological responsibility encourage students to internalize environmental values and translate them into environmentally responsible actions. This finding aligns with leadership theories that emphasize leaders' influence on followers' attitudes and behaviors through modeling and social influence. According to Steg and Vlek (2009), environmental behaviors are strongly influenced by social norms and contextual factors, including leadership practices.

Similarly, research on organizational sustainability suggests that leadership commitment and environmental values play a central role in promoting pro-environmental behavior among organizational members (Norton et al., 2015; Robertson & Barling, 2013). Leadership that integrates environmental ethics into institutional culture can foster environmental awareness and encourage behavioral change. From a higher education perspective, lecturers function not only as knowledge transmitters but also as agents of value formation. Their ecological leadership can therefore shape students' environmental attitudes, norms, and behaviors through educational interaction and social learning processes.

The findings of this study can also be explained using several established theoretical frameworks. **First**, the Theory of Planned Behavior (TPB) (Ajzen, 1991) explains that behavior is influenced by attitudes, subjective norms, and perceived behavioral control. Within this framework, lecturers' ecological leadership can strengthen subjective norms that encourage environmentally responsible actions among students. **Second**, the Value-Belief-Norm (VBN) theory proposed by Stern (2000) explains that environmental values and ecological beliefs influence personal norms, which ultimately lead to pro-environmental behavior. When lecturers demonstrate ecological commitment through leadership practices, they reinforce environmental values and moral norms among students. **Third**, social learning theory (Bandura, 1986) also supports this interpretation. Students learn behaviors through observation and imitation of significant role models. Lecturers who demonstrate ecological responsibility provide observable examples that students may emulate in their daily behaviors.

Higher education institutions are increasingly recognized as critical agents in promoting sustainability and environmental responsibility. Pro-environmental behavior includes activities such as energy conservation, recycling, waste reduction, and sustainable consumption (Kaiser & Fuhrer, 2003; Otto & Kaiser, 2014). Universities that integrate environmental values into teaching, leadership practices, and institutional culture can significantly influence students' environmental behavior. Consequently, lecturers' ecological leadership can become a strategic factor in cultivating environmentally responsible graduates who contribute to sustainable development.

## 10. NOVELTY

This study offers several important novelties. **First**, it introduces the concept of Catholic lecturers' ecological leadership as a predictor of students' pro-environmental behavior. While previous studies have examined leadership and environmental behavior in organizational contexts, limited research has explored how faith-based leadership values in higher education influence environmental behavior. **Second**, this study extends pro-environmental behavior research from corporate or organizational settings to the higher education learning environment, emphasizing the role of lecturers as moral leaders. **Third**, the study provides an integrated behavioral model linking leadership and environmental behavior within a university context, contributing to interdisciplinary research between environmental psychology, educational leadership, and sustainability studies.

## 11. THEORETICAL CONTRIBUTION

This research contributes to theory development in several ways. (1) Extension of Leadership Theory in Environmental Contexts; The study expands leadership theory by demonstrating that ecological leadership in educational settings can significantly influence environmental behavior. This finding supports arguments that leadership plays a crucial role in shaping sustainability culture within organizations and institutions. (2) Contribution to Pro-Environmental Behavior Theory; This study strengthens theoretical explanations of pro-environmental behavior by incorporating leadership as a social influence factor within behavioral frameworks such as TPB and VBN; (3) Contribution to Sustainability Education Literature; The research also contributes to sustainability education literature by demonstrating that educators' leadership practices can influence students' environmental responsibility, thereby reinforcing the role of universities in promoting sustainable development.

## 12. CONCLUSION

This study examined the effect of Catholic lecturers' ecological leadership on students' pro-environmental behavior using a structural path analysis approach. The findings demonstrate that all hypothesized relationships are statistically significant, indicating that lecturers' ecological leadership plays an important role in encouraging students to engage in environmentally responsible behavior. The results confirm that leadership within higher education institutions can serve as an important mechanism for cultivating environmental awareness and sustainability-oriented behaviors among students. By integrating ecological values into leadership practices, lecturers can influence students' environmental attitudes, norms, and behavioral intentions, ultimately leading to increased pro-environmental behavior.

## 13. POLICY IMPLICATIONS

Several policy implications emerge from this study: (1) Universities should integrate ecological leadership development programs for lecturers to strengthen sustainability-oriented teaching and leadership practices; (2) Higher education institutions should incorporate environmental ethics and sustainability values into curricula and institutional policies to support the development of students' pro-environmental behavior; (3) Policymakers in education should encourage universities to adopt sustainability leadership frameworks that promote environmental responsibility among academic communities. These strategies are essential because leadership and environmental commitment are recognized as important drivers of sustainability and environmental behavior change within institutions and organizations.

## 14. RESEARCH IMPLICATIONS


This study also provides several directions for future research: (1) Future studies may examine mediating variables, such as environmental values, ecological worldview, or environmental awareness, that may explain the relationship between ecological leadership and pro-environmental behavior; (2) Comparative research could explore whether ecological leadership across different religious or institutional contexts produces similar behavioral outcomes; (3) Longitudinal studies could investigate how ecological leadership influences students' environmental behavior over time.

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