

Individual Pro-Environmental Behavior: A Study on Employees in Indonesia's Banking Industry

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Abstract. Environmental issues have been a global concern over the past few decades due to growing concerns about global warming, pollution, and the depletion of natural resources, resulting in an energy crisis. Organizations are encouraged to adopt environmentally friendly practices to reduce environmental impact while maintaining competitiveness. However, achieving environmental sustainability requires the active participation of employees, whose behavior collectively affects the company's environmental goals. This study focuses on the Indonesian banking industry to analyze the factors that drive employees' pro-environmental behavior, taking into account the role of green HR practices, green transformational leadership, and external pressures from the government. The study examines the relationship between green transformational leadership, green training and development, green performance management, green organizational culture, and green social capital in influencing pro-environmental behavior. It explores how perceived government pressure moderates the relationship between green organizational culture and pro-environmental behavior, while also investigating the mediating role of green organizational culture and green social capital in these relationships. Design/methodology/approach – Data were gathered from 210 employees in the Indonesian banking industry through structured questionnaires using a five-point Likert scale. Structural Equation Modeling (SEM) with *SmartPLS 3* was employed to test the proposed hypotheses. The results show that green transformational leadership, green performance management, and green social capital have a positive and significant impact on pro-environmental behavior. However, green training and development and green organizational culture do not have a significant direct effect. Perceived government pressure was found to positively and significantly moderate the relationship between green organizational culture and pro-environmental behavior.

Keywords: pro-environmental behavior, banking, leadership, government, Green

INTRODUCTION

Environmental issues have garnered global attention over the past few decades due to the escalating concerns about global warming, pollution, and diminishing natural resources, which have resulted in an energy crisis (Zelazna et al., 2020). The United Nations (UN) has responded to these concerns with various initiatives, such as the Sustainable Development Goals (SDGs), which emphasize environmental protection as a core aspect of sustainable development. Among the 17 SDGs, Goal 13 ("Climate Action") specifically addresses the need for direct measures to combat climate change, while Goal 12 emphasizes sustainable consumption and production patterns.

The growing global concern over environmental issues has compelled organizations to adopt environmentally friendly practices to remain competitive while reducing their environmental impact (Afsar & Umrani, 2020). However, achieving environmental sustainability in organizations requires employee participation, as collective employee behaviors significantly influence a company's environmental goals (Roscoe et al., 2019). This has led to an increased focus on fostering pro-environmental behavior (PEB) within organizations, which refers to individual actions that contribute to environmental sustainability in the workplace. PEB involves a range of behaviors aimed at reducing negative environmental

impacts, such as energy conservation, waste reduction, and supporting green initiatives (Saeed et al., 2018). This study builds upon existing research that identifies factors influencing PEB, including green human resource management (GHRM), green transformational leadership (GTL), and green organizational culture (Ahmad et al., 2023). While previous studies have examined these factors in isolation, this research aims to explore their collective impact on PEB, particularly in the banking sector.

Previous studies, such as those by Dumont et al. (2017), highlight GHRM practices, including green training and development (T&D) and green performance management (PM), as critical drivers of PEB. Similarly, Chaudhary (2019) and Ojo et al. (2019) found that GHRM significantly influences employee engagement in pro-environmental practices, particularly in regions like India and Malaysia. These studies emphasize the importance of training and development and performance management in shaping environmentally responsible behaviors. In addition to GHRM, GTL plays a crucial role in fostering PEB. Leaders who inspire and motivate employees with a clear vision of environmental sustainability can enhance employees' commitment to green initiatives (Agrawal & Pradhan, 2023). Studies by Perez et al. (2023) and Lathbavan and Kaur (2023) reinforce the significance of GTL in promoting PEB by encouraging active employee participation in environmental programs.

Moreover, the role of green organizational culture (GOC) as a mediator between GHRM, GTL, and PEB has been recognized in previous research (Al Swidi et al., 2021; Tran et al., 2023). GOC, encompassing shared values and norms related to environmental management, reinforces collective pro-environmental attitudes and behaviors within organizations. This study aims to further explore GOC's mediating role in the relationship between GHRM, GTL, and PEB. Additionally, this research introduces green social capital (GSC) as a *second* mediator, addressing the conflicting findings regarding its role in previous studies. While Ahmad et al. (2023) did not find a significant moderating effect of GSC on PEB, earlier research by Delgado-Verde et al. (2014) suggests that GSC, through knowledge sharing and collaboration, could strengthen environmental values and behaviors in organizations. This study seeks to clarify the mediating role of GSC in the context of GHRM, GTL, and GOC.

Finally, this study incorporates the external influence of government regulations on PEB by examining the role of perceived government pressure (PGP) as a moderating variable. Institutional theory posits that external forces, such as government policies, can shape organizational behavior. In the context of Indonesia's banking sector, this research investigates how PGP influences the relationship between GOC and PEB, contributing to a more comprehensive understanding of both internal and external factors shaping PEB in organizations. This research aims to analyze the influence of green transformational leadership, green training and development, green performance management, green organizational culture, and green social capital on the pro-environmental behavior of employees in the Indonesian banking industry. *In particular*, this study examines the mediating role of green organizational culture and green social capital in the relationship between green HRM practices and green transformational leadership and pro-environmental behaviors, and investigates the *moderating* role of perceived government pressure in strengthening the relationship between green organizational culture and pro-environmental behavior. The benefits of this research consist of two main aspects. Theoretically, this research contributes to the development of the sustainability literature by integrating internal (green HRM and leadership) and external

(institutional theory) perspectives in predicting pro-environmental behavior. In practical terms, the findings of this study can serve as a guide for organizations in developing effective green HRM and transformational leadership strategies to promote eco-friendly behaviors in the workplace, as well as assist stakeholders in designing policies that support sustainability practices in the banking sector. By integrating these variables—GHRM, GTL, GOC, GSC, and PGP—this study aims to provide a holistic view of the factors influencing PEB, offering valuable insights for organizations seeking to foster environmentally responsible behaviors among their employees.

MATERIALS AND METHODS

This research employs a quantitative research approach with a cross-sectional survey design to examine the relationships between green human resource management practices, green transformational leadership, green organizational culture, green social capital, perceived government pressure, and individual pro-environmental behavior. The research utilizes *an* explanatory research *design* to explain the causal relationships between these variables through hypothesis testing.

This study distributed a questionnaire via Google Forms to potential respondents using platforms such as WhatsApp, Line, and Instagram from January 24, 2024, to February 9, 2024. A minimum sample size of 180 was required, and a total of 248 responses were collected. After screening for respondent characteristics, 37 respondents were eliminated because they were non-permanent employees (part-time, contract, seasonal, freelance, or outsourced). This was done to ensure that only permanent employees participated, providing more valid and reliable data. Additionally, one respondent who was not an active bank employee was also excluded, resulting in 210 valid responses. Of these, 67% were from state-owned enterprises (SOEs), 7% from private companies, and 25% from regional development banks (*BPD*), with 58% based in East Java*,* 31% in Jakarta*,* and 11% from *other regions*, which *are* Bali, West Java, South Kalimantan, Yogyakarta, *Central* Java, North Sumatra, South Sumatra, Riau, and Sulawesi.

This study utilized a structured questionnaire to gather data, ensuring measurement reliability and validity through the meticulous selection of items from established research tools. The questionnaire was systematically designed, including sections on informed consent, filter questions regarding sustainability report ownership, participant demographics, and the primary variables of interest. Responses were captured using a 5-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"), allowing for a detailed assessment of participant attitudes and perceptions. Table 2 presents the questionnaire items distributed to the study sample.

Individual Pro-Environmental Behavior was defined as employees' readiness to engage in environmentally responsible actions at work, measured using items from Saeed et al. (2018), such as: "Employees avoid wasting water at work" and "Employees turn off lights when leaving the office." Green Transformational Leadership refers to leaders inspiring and motivating employees to meet environmental goals. Items adapted from Robertson (2018) include: "Employees see their leaders as role models for environmental protection."

Green Training and Development encompasses training that enhances employees' environmental knowledge and skills. Sample items from Dumont et al. (2017) and Tang et al.

(2018) include: "The company provides training on environmental management." Green Performance Management involves evaluating employees' environmental performance through defined goals and feedback. Indicators from Masri and Jaaron (2017) state: "Employees understand specific environmental objectives they must achieve."

Green Organizational Culture reflects the values guiding corporate environmental practices. Items adapted from Wang (2019) include: "Employees recognize the company's commitment to environmental preservation." Green Social Capital pertains to informal interactions and knowledge sharing about environmental issues within the organization, measured by items from Delgado-Verde et al. (2014), such as: "Employees engage in informal discussions about environmental topics."

Lastly, Perceived Government Pressure captures the impact of government regulations on corporate environmental practices, with items from Zeng et al. (2017) stating: "Employees feel government policies compel companies to adopt eco-friendly practices."

Tabel 1. Item Description

Item	Item Description	Items' code	Reference
Individual Pro-Environmental Behavior	1. At work, I avoid wasting water	PEB1	Saeed et al. (2018)
	2. At work, I turn off the lights when leaving the office.	PEB2	
	3. At work, I choose to use the stairs for 1-2 floors to save energy.	PEB3	
	4. At work, I bring reusable eating and drinking utensils (e.g., tumbler and Tupperware containers).	PEB4	
	5. At work, I print double-sided when possible.	PEB5	
	6. At work, I put recyclable waste in the recycling bin.	PEB6	
	7. At work, I participate in eco-friendly programs.	PEB7	
	8. At work, I share my knowledge about the environment with colleagues.	PEB8	
	9. At work, I complete assigned tasks in an environmentally friendly manner (e.g., not creating waste while completing the work).	PEB9	
Green Transformational Leadership	1. My leader acts as a role model in protecting the environment.	GTL1	Robertson (2018)
	2. My leader motivates me to work in an environmentally friendly manner.	GTL2	
	3. My leader encourages me to think creatively about improving the organization's environmental performance.	GTL3	
	4. My leader takes the time to develop my skills so I can contribute to the organization's environmental performance	GTL4	
Green Training and Development	1. My company provides training programs in environmental management to enhance employees' environmental knowledge and awareness..	GTND1	Dumont et al. (2017) and Tang et al. (2018)
	2. My company offers training to create employees' emotional engagement in environmental management.	GTND2	

Item	Item Description	Items' code	Reference
Green Performance Management	3. My company provides training to create employees' emotional engagement in environmental management.	GTND3	Masri and Jaaron (2017) and Sarmad et al., (2023)
	4. My company provides environmental training to employees to develop the expertise and skills necessary for sustainable management.	GTND4	
	1. Employee understand the environmental gals, objectives, and specific responsibilities that each employee must achieve.	GPM1	
	2. Employee understand that their environmental behavior and contributing to their organization's environmental performance are assessed	GPM2	
	3. Employees feel that regular feedback is given to help them achieve environmental goals and improve the organization's environmental performance.	GPM3	Wang (2019), Banerjee (2002), Fraj et al., (2011) Yesiltas., et al (2022)
	4. Employees feel that the achievement of environmental goals is evaluated and included as one of the criteria in performance appraisals.	GPM4	
	5. Employees feel that managers play a role in performance management to achieve environmental outcomes	GPM5	
	1. Employees know that the company strives to ensure that each employee understands the importance of environmental preservation.	GOC1	
	2. Employees know that the company has a clear policy statement that promotes environmental awareness in every area.	GOC2	Delgado-Verde et al., (2014) and Xie et al., (2022)
	3. Employees know that environmental preservation is a high-priority activity within the company.	GOC3	
Green organizational culture	4. Employees know that environmental preservation is a core value of the company.	GOC4	
	5. Employees know that the company links environmental goals with other company objectives.	GOC5	
	6. Employees know that the company develops products and processes that minimize environmental impact.	GOC6	
Green social capital	1. Employees feel there is informal interaction among them to exchange information about the environmental aspects of their work.	GSC1	Delgado-Verde et al., (2014) and Xie et al., (2022)
	2. Employees feel there are constructive discussions among them to solve the company's environmental issues.	GSC2	
	3. Employees feel the company environment encourages them to have the willingness to share knowledge and experience related to the environment.	GSC3	
	4. Employees feel the company	GSC4	

Item	Item Description	Items' code	Reference
	environment encourages them to help each other generate new ideas related to the environment.	GSC5	
	5. Employees feel the company environment encourages them to help each other improve the company's environmental performance.	PGP1	Zeng et al., (2017) and Bag et al., (2021)
Perceived Government Pressure	1. Employees feel that government policies and regulations related to recycling, environmental protection, and conservation compel the company and employees to implement eco- friendly practices.	PGP2	
	2. Employees feel that the government exercises control and monitoring over the company's environmental management.	PGP3	
	3. Employees feel that the government can impose sanctions if environmental damage and resource wastage occur in our company		
Source: Authors' own work			

The relationships among the research variables were analyzed using Partial Least Squares - Structural Equation Modeling (PLS-SEM) with *SmartPLS 3*, a quantitative analysis technique aimed at answering research questions and testing previously proposed hypotheses. PLS-SEM is a widely adopted statistical tool for analyzing complex relationships between latent and measured variables simultaneously, effectively combining factor analysis and regression (Hair et al., 2014). As noted by Hair et al. (2021), PLS, also known as path modeling, serves a causal-predictive purpose, estimating the influence of independent variables on dependent ones and elucidating the theoretical relationships between them.

PLS-SEM consists of two main components: the structural model, which connects constructs and illustrates the relationships among them, and the measurement model, which depicts the relationships between constructs and their indicator variables. This study employs PLS-SEM for several reasons: first, it involves seven variables with 12 interrelationships, creating a complex model that PLS-SEM can effectively analyze; second, it requires a smaller sample size of 200-250 respondents, making PLS-SEM particularly suitable; and third, it aims to test and confirm theories by analyzing the relevant variables through predetermined prediction paths.

RESULTS AND DISCUSSION

The analysis using Structural Equation Modeling (SEM) through *SmartPLS 3* revealed several significant relationships. Green transformational leadership and green performance management were found to positively influence pro-environmental behavior, supporting H1 and H3. However, green training and development (H2) did not have a significant direct effect on pro-environmental behavior, contradicting previous research (Zibarras & Coan, 2015). Green organizational culture and green social capital played mediating roles in these relationships, enhancing the effect of leadership and performance management on pro-environmental behavior.

First step in this study is to validate the indicators used, utilizing three main methods:

loading factor, composite reliability, and convergent validity. First, convergent validity is tested through outer loadings and average variance extracted (AVE). According to Hair et al. (2017), indicators with a loading factor >0.7 are considered good, values between 0.4-0.7 may be considered for elimination, and values <0.4 should be eliminated. In this study, invalid indicators (PEB1-PEB6) were removed due to potential impact on AVE testing. Results show that all variables meeting the AVE threshold of >0.5 have good validity. Furthermore, composite reliability was tested, with acceptable values being >0.7 (Ghozali & Latan, 2015) or >0.6 (Hair et al., 2017).

Table 2. Items loading, composite reliability, and convergent validity

Constructs	Items	Loading	CR	AVE
Pro-Environmental Behavior	PEB7	0.83	0,88	0,72
	PEB8	0.89		
	PEB9	0.82		
Green Transformational Leadership	GTL1	0,87	0,94	0,81
	GTL2	0,94		
	GTL3	0.92		
	GTL4	0.86		
Green Training and Development	GTND1	0.91	0,96	0,87
	GTND2	0.93		
	GTND3	0.94		
	GTND4	0.94		
Green Performance Management	GPM1	0.83	0,94	0,76
	GPM2	0.86		
	GPM3	0.91		
	GPM4	0.87		
	GPM5	0.88		
Green Organizational Culture	GOC1	0.91	0,96	0,83
	GOC2	0.91		
	GOC3	0.94		
	GOC4	0.90		
	GOC5	0.92		
	GOC6	0.88		
Green Social Capital	GSC1	0.87	0,96	0,85
	GSC2	0.95		
	GSC3	0.90		
	GSC4	0.95		
	GSC5	0.94		
Perceived Government Pressure	PGP1	0.89		
	PGP2	0.92		
	PGP3	0.87		
Moderating Effect	ME	1.552	0,92	0,80
			1,00	1,00

Note(s): Items PEB1, PEB2, PEB3, PEB4, PEN5. PEB6 deleted due to low factor loading (<0.7)

Source: Authors' own work

The criterion developed by Fornell & Larcker is employed to assess the discriminant validity. According to Table 4, the values along the main diagonal are greater than the values outside the diagonal. Thus, this study has successfully demonstrated discriminant validity.

Table 3. Discriminant validity using Fornell and Larker criterion

	GOC	GPM	GSC	GTL	GTND	ME	PEB	PGP
GOC	0,91							
GPM	0.86	0.87						
GSC	0.79	0.79	0.92					
GTL	0,70	0,75	0,64	0,90				
GTND	0,81	0,78	0,74	0,67	0,93			
ME	-0,43	-0,32	-0,19	-0,21	-0,34	1,00		
PEB	0,59	0,68	0,64	0,70	0,57	-0,06	0,85	
PGP	0,81	0,78	0,71	0,62	0,70	-0,367	0,52	0,89

Note(s): GOC = Green Organizational Culture, GPM = Green Performance Management, GSC = Green Social Capital, GTL = Green Transformational Leadership, GTND = Green Training and Development, ME = Moderating Effect, PEB = Pro-Environmental Behavior, PGP = Perceived Government Pressure.

Source: Authors' own work

Assessment of structure model

Structural model was examined using bootstrapping in SmartPLS 3 to determine the path coefficients, original sample values, and significance levels among the study variables. Hypotheses were tested based on these values, and confidence intervals were calculated to assess the significance of the paths, following established guidelines (Hair et al., 2017). The structural model, presented in Figure 2, provides a comprehensive view of the relationships among green transformational leadership, green training and development, green performance management, green organizational culture, green social capital, and Individual pro-environmental behavior.

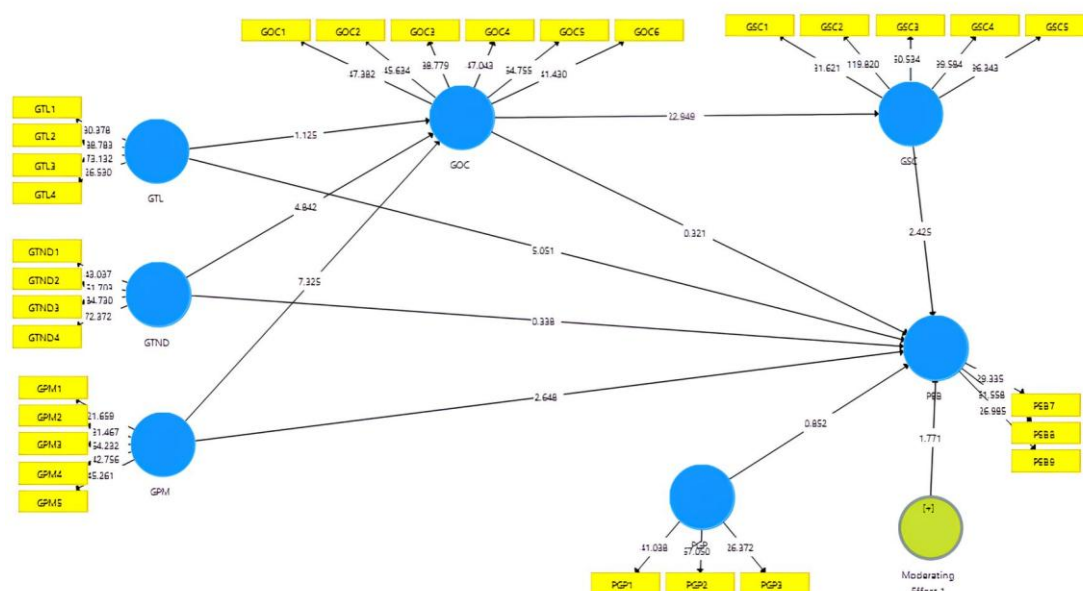


Figure 2. The structural model and path coefficients values for the total sample

Source: Authors' own work

The model starts by illustrating the impact of green transformational leadership and green training and development on Individual pro-environmental behavior. Path coefficients show that green transformational leadership has a positive and significant effect ($O = 0.411$, $p < 0.05$), while green training and development has a negative, non-significant effect ($O = -0.025$,

$p > 0.05$). These coefficients indicate that leadership practices aligned with green principles can promote Individual pro-environmental behavior, but green training and development may not independently drive these behaviors.

The model also reveals significant relationships between green organizational culture and various green HRM practices. Green performance management has a positive, significant effect on green organizational culture ($O = 0.554$, $p < 0.05$), as does green training and development ($O = 0.331$, $p < 0.05$), whereas green transformational leadership's effect is positive but non-significant ($O = 0.065$, $p > 0.05$). These path coefficients indicate that while green training and performance management positively shape organizational culture, transformational leadership alone may not suffice to embed these values within organizational culture.

Furthermore, the path from green organizational culture to green social capital shows a positive and significant impact ($O = 0.796$, $p < 0.05$), suggesting that a strong green culture fosters social capital that supports environmental initiatives. Additionally, green social capital has a positive influence on Individual pro-environmental behavior ($O = 0.245$, $p < 0.05$), highlighting the role of social structures in promoting sustainable actions within organizations.

An important aspect of this model is the mediated relationships, where green organizational culture and green social capital mediate the influence of green HRM practices on Individual pro-environmental behavior. For instance, the indirect effect of green training and development on pro-environmental behavior is significant ($O = 0.065$, $p < 0.05$), as is that of green performance management ($O = 0.108$, $p < 0.05$), while green transformational leadership does not have a significant mediated effect ($O = 0.013$, $p > 0.05$). These findings align with prior studies that highlight the role of a supportive green culture and social capital in translating green HRM practices into impactful pro-environmental outcomes.

Table 5 provides a summary of these findings, illustrating the complex relationships among green HRM practices, organizational culture, social capital, and pro-environmental behavior within the organization.

Table 4. Structure model: hypothesis testing

Hypotheses	Original Sample (O)	Sample Mean (M)	ST DEV	T statistics	p values	
GTL -> PEB	0.41	0.41	0.08	5.05	0.00	H1 Supported
GTND -> PEB	-0.02	-0.02	0.07	0.33	0.36	H2 Not Supported
GPM -> PEB	0.34	0.33	0.13	2.64	0.00	H3 Supported
GTL -> GOC	0.06	0.06	0.05	1.12	0.13	H4 Not Supported
GTND -> GOC	0.33	0.33	0.06	4.84	0.00	H5 Supported
GPM -> GOC	0.55	0.54	0.07	7.32	0.00	H6 Supported
GOC -> PEB	-0.048	-0.03	0.14	0.3	0.37	H7 Not Supported
GOC -> GSC	0.79	0.79	0.03	22.99	0.00	H8 Supported
GSC -> PEB	0.24	0.24	0.10	2.42	0.00	H9 Supported
GTL -> GOC -> GSC -> PEB	0.01	0.01	0.01	0.90	0.18	H10 Not Supported
GTND -> GOC -> GSC -> PEB	0.06	0.06	0.02	2.199	0.01	H11 Supported
GPM -> GOC -> GSC -> PEB	0.10	0.10	0.04	2.29	0.01	H12 Supported

Note(s): $p < 0.05$, GOC = Green Organizational Culture, GPM = Green Performance Management, GSC = Green Social Capital, GTL = Green Transformational Leadership, GTND = Green Training and Development, ME = Moderating Effect, PEB = Pro-Environmental Behavior, PGP = Perceived Government Pressure

Source: Authors' own work

Table 6 below shows result of moderation effect of perceived government pressure, where the variable perceived government pressure significantly moderates the relationship

between green organizational culture and individual pro-environmental behavior, as indicated by the original sample value (o) of 0.077 and a p-value of 0.042, which is less than 0.05.

Table 5. Moderation Effect

Hypotheses	Original Sample (O)	Sample Mean (M)	STDEV	T statistics	p values	
PGO: GOC -> PEB	0.77	0.06	0.04	1.77	0.03	H13 Supported
Note(s): $p < 0.05$, GOC = Green Organizational Culture, PEB = Pro-Environmental Behavior, PGP = Perceived Government Pressure						
Source: Authors' own work						

Table 8 below indicates that this research model meets the criteria, with the SRMR (Standardized Root Mean Square) values at 0.44 and 0.061, which fall within the acceptable fit range of below 0.10. Additionally, the NFI (Normed Fit Index) values for this research model are 0.848 and 0.841, also within the range of 0 to 1, indicating that the model is considered a good fit.

Table 6. Model Fitness

	Saturated Model	Estimated Model
SRMR	0.044	0.061
d_ULS	0.891	1.759
d_G	1.061	1.151
Chi-Square	1.204.090	1.256.555
NFI	0.848	0.841
Source: Authors' own work		

Table 9 below shows the R-square values for three variables: pro-environmental behavior (0.591), green organizational culture (0.793), and green social capital (0.634). According to Hair et al. (2017, 2021), R-square criteria are as follows: 0.75 and above indicates a strong model, 0.50-0.74 a moderate model, 0.25-0.49 a weak model, and below 0.25 an inadequate model. Based on these values, the pro-environmental behavior model, explained 59.1% by factors like green transformational leadership, green training and development, green performance management, green organizational culture, and green social capital, is classified as moderate, with 40.9% accounted for by other factors not included in this study. The green social capital model is also moderate, with 63.4% explained by the mentioned factors, leaving 36.6% to other variables. Meanwhile, the green organizational culture model, explained 79.3% by the specified variables, is considered strong, with the remaining 20.7% attributed to other factors. The R-square values indicate that the models for pro-environmental behavior (0.605) and green social capital (0.634) are moderately strong, while the model for green organizational culture (0.793) is robust.

Table 7. R2 and R2 Adjusted

	R ²	R ² Adjusted
Individual Pro-Environmental Behavior	0.591	0.577
Green Organizational Culture	0.793	0.790
Green Social Capital	0.634	0.632
Source: Authors' own work		

Discussion

The findings of this study highlight the critical role that green transformational leadership and green performance management play in promoting pro-environmental behavior among employees within the Indonesian banking sector. This aligns with the research of Rizvi and Garg (2021), who assert that effective leadership is essential for cultivating a sustainability-oriented or green organizational culture. Saeed et al. (2018) further reinforce this relationship, demonstrating that leaders who engage in transformational practices, including motivation through rewards and intellectual stimulation, can effectively inspire employees to adopt environmentally responsible behaviors. Such leadership not only fosters a commitment to sustainability but also empowers employees to take initiative in their roles, reinforcing the idea that every individual can contribute to the organization's environmental goals.

Conversely, the study found that green training and development did not significantly impact pro-environmental behavior, which contrasts with earlier findings by Zibarras and Coan (2015) that suggested training initiatives could foster such behaviors. This discrepancy indicates that while training may lay a foundational understanding of sustainability, its direct influence on behavior may be moderated by factors such as organizational commitment and leadership effectiveness (Aggarwal & Agarwala, 2021). The results highlight the necessity for organizations to not only implement training programs but also ensure they are integrated with broader organizational goals to shape employee values and actions. Without a clear connection between training content and real-world application, employees may struggle to see the relevance of their training in fostering sustainable practices.

Additionally, the research reveals a positive correlation between green organizational culture and green social capital, both of which significantly drive pro-environmental behavior. This finding supports the work of Wang (2019), who posits that a strong organizational culture focused on sustainability can encourage employees to engage in environmentally friendly practices. The evidence suggests that cultivating a robust green organizational culture is essential for enhancing social capital, which in turn promotes a collective commitment to sustainability among employees (Ojo & Raman, 2019). A strong green organizational culture cultivates trust and collaboration among employees, leading to greater collective efforts toward sustainability goals. This collaborative environment not only enhances individual motivation but also fosters a sense of belonging, where employees feel their contributions matter.

Moreover, the study identifies the significant mediating effects of green training and development and green performance management on green organizational culture. This mediating role underscores the importance of integrating training initiatives and performance management systems that align with sustainability goals, echoing the findings of Jiang et al. (2023), who emphasize the necessity for organizations to foster a culture that encourages participation in sustainability initiatives. Additionally, the moderating effect of perceived government pressure on the relationship between green organizational culture and pro-environmental behavior highlights the influence of external factors, suggesting that organizations may benefit from aligning their sustainability efforts with regulatory frameworks and governmental expectations (Kim et al., 2019). This alignment not only fulfills compliance requirements but also positions the organization as a leader in sustainable banking practices, ultimately contributing to a more sustainable future.

The implications of these findings are far-reaching, suggesting that banks in Indonesia

should focus on enhancing leadership skills that promote green initiatives while concurrently aligning their training and development efforts with their broader sustainability objectives. This strategic approach would involve ongoing assessments to ensure that training programs remain relevant and impactful, thereby fostering a culture of continuous improvement and adaptation. Furthermore, organizations must recognize the importance of employee feedback in shaping these initiatives, as insights from the workforce can provide valuable perspectives on how to enhance sustainability practices effectively.

In conclusion, the evidence presented in this study affirms that green transformational leadership and green performance management significantly enhance pro-environmental behavior, while green training and development yields mixed results. The interplay between green organizational culture and green social capital emerges as crucial in shaping employee pro-environmental actions. Overall, these findings emphasize the necessity for organizations to prioritize the development of a strong environmentally-oriented culture and to bolster social capital to enhance pro-environmental behavior in the Indonesian banking sector. By investing in leadership development and aligning training programs with organizational values, banks can foster a sustainable work environment that not only benefits the organization but also contributes to broader environmental goals, consistent with the objectives of the United Nations Sustainable Development Goals (De Prins et al., 2014). Ultimately, a committed and informed workforce is essential for the successful implementation of sustainability strategies, ensuring that environmental goals are not just aspirational but achievable.

1. Theoretical Implication

This study emphasizes the theoretical contributions of green transformational leadership, green organizational culture, and performance management in driving pro-environmental behavior in the Indonesian banking sector. While affirming the importance of leadership in fostering sustainability, the research also highlights the interplay between culture and green social capital as critical drivers of collective environmental actions. Contrary to prior studies, green training and development showed no significant effect, suggesting the need for further exploration of moderating factors such as leadership support and organizational alignment. The findings extend institutional theory by demonstrating the moderating role of perceived government pressure, highlighting the influence of external regulatory forces. This study enriches sustainability literature by integrating leadership, cultural, and institutional perspectives, offering a foundation for future research in diverse contexts.

2. Practical Implication

Organizations can enhance green transformational leadership and green performance management to drive pro-environmental behavior among employees, ensuring alignment with sustainability objectives. Developing leadership programs that emphasize motivation, intellectual stimulation, and individual approach can foster a culture where employees actively contribute to environmental goals. This approach empowers employees to take initiative, reinforcing their role in achieving organizational sustainability. Although green training and development did not show a significant direct impact, integrating training initiatives with broader organizational goals can enhance their effectiveness. Organizations should focus on linking training content to real-world applications, ensuring that employees see its relevance to their roles and sustainability practices.

Creating an organizational culture that focusing on green initiative and enhancing green

social capital are essential steps toward promoting collective commitment to sustainability. By fostering trust and collaboration among employees, organizations can create an environment where sustainability becomes a shared priority. This collaborative approach not only improves individual motivation but also strengthens a sense of belonging and purpose. Additionally, aligning sustainability efforts with regulatory frameworks and perceived government pressures can position organizations as leaders in sustainable practices. Such alignment ensures compliance while demonstrating organizational responsibility, benefiting both the business and the broader community. By focusing on leadership development, integrating sustainability into performance management, and fostering a collaborative culture, organizations can create long-term value that supports environmental goals and enhances employee engagement in sustainability initiatives.

3. Limitation and Future Directions

This study, conducted within the Indonesian banking sector, presents several limitations that can guide future research. Firstly, the analysis was limited to the individual level of employees, and future studies could expand to explore pro-environmental behavior at the organizational or institutional level. Such an approach would provide a broader understanding of how Green HRM (GHRM) influences environmental sustainability at a larger scale. Secondly, this research focused on the banking industry in general. Future research could deepen the analysis by examining companies with a proven track record, achievements, and formal policies directly related to sustainability practices. This would allow for a more nuanced understanding of how pro-environmental behavior manifests within specific organizations committed to environmental sustainability.

CONCLUSIONS

The findings underscore the importance of leadership and organizational culture in promoting pro-environmental behavior. While green training and development showed limited direct impact, the integration of green practices within organizational culture and performance management systems is essential for fostering sustainability. Future research should explore the long-term effects of green initiatives and examine broader organizational contexts to better understand the factors influencing PEB across industries.

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