



DOI: [https://doi.org/10.14505/jemt.v15.1\(73\).00](https://doi.org/10.14505/jemt.v15.1(73).00)

Green Competence Building, Green Employee Involvement and Green Work-Life Balance to Improve Environmental Performance Through Green Organizational Culture

Deni Widyo PRASETYO

Faculty of Economics and Business
Universitas 17 Agustus 1945 Surabaya, Indonesia
ORCID: 0009-0003-9171-6679
deni.stiedw@gmail.com

Amiartuti KUSMANINGTYAS

Faculty of Economics and Business
Universitas 17 Agustus 1945 Surabaya, Indonesia
ORCID: 0000-0002-9978-1841
amiartuti@untag-sby.ac.id

Siti MUJANAH

Faculty of Economics and Business
Universitas 17 Agustus 1945 Surabaya, Indonesia
ORCID: 0000-0002-7946-2202
siti_mujanah2003@yahoo.com

Article's History: Received 22 May 2023; Received in revised form 17 June 2023; Accepted 19 January 2024; Published 15 March 2024.

Copyright© 2024 The Author(s). Published by ASERS Publishing 2024. This is an open access article distributed under the terms of CC-BY 4.0 license.

Abstract:

This research is motivated by environmental performance. The aim of this study is to determine the influence of the relationship between green competence building, green employee involvement, and green work-life balance on environmental performance, mediated by the green organizational culture of the Head of Study Program at PGRI Higher Education Institutions in East Java. The grand theory of this research is the AMO theory (Ability, Motivation, Opportunity). The sampling technique uses a saturated or census sample. The sample in this study consists of 185 respondents, the Head of Study Program at PGRI Higher Education Institutions in East Java, through a self-administered survey. The research instrument uses a questionnaire and is analyzed using SEM analysis, employing the Warp PLS Version 7.0 analysis tool to analyze the outer model, inner model, and hypothesis testing using p-value. The results show a significant direct influence of green competence building and green employee involvement on green organizational culture. Subsequently, green organizational culture significantly influences environmental performance. The relationship with green work-life balance does not significantly affect green organizational culture.

This research indicates that there is an intervening variable effect, namely green organizational culture, on the relationship between green competence building, green employee involvement, and environmental performance. However, green organizational culture cannot act as an intervening variable in the relationship between green work-life balance and environmental performance. This study demonstrates that the practices of green competence building, green employee involvement, and green organizational culture play a crucial role in the implementation of environmental policies to promote environmental performance at PGRI Higher Education Institutions in East Java.

Keywords: green competence building; green employee involvement; green work life balance; green organizational culture; environmental performance.

JEL Classification: Q56; I23.

Introduction

Globally, researchers, along with environmental policymakers, agree that the causes of environmental degradation, including resource deficits, rising pollution, and biodiversity loss, are fundamentally linked to human behavior (Hui, Chan, and Pun 2001). In response, many organizations implement an Environmental Management System (EMS) to ensure that their daily operations do not have adverse effects. Therefore, it is essential to comprehend how employee behavior is influenced to minimize the negative environmental impact of organizational activities.

According to Nogueira et al. (2013), employee work performance is a function (f) of the interaction between ability (A) and motivation (M), expressed as $\text{work performance} = (A \times M)$. Inadequacies negatively affect work performance. Robbins additionally proposed incorporating an opportunity factor, modifying the equation to $\text{work performance} = f(A \times M \times O)$. As indicated by Wijoyo & Mashuri (2020), the fundamental assumption of the AMO theory is that an employee's performance is determined by a function of ability, motivation, and existing opportunities.

According to Muisyo & Qin (2021), culture is an internal element of the organization. Green Organizational Culture (GOC) ensures that organizational activities are pro-environmental and support the natural environment through a collection of artifacts, assumptions, and values reflecting the company's commitment to environmentally friendly or sustainable operations (Aggarwal and Agarwala 2021). From a GOC perspective, it is insufficient to merely prevent pollution and produce environmentally friendly products. Companies must actively think, seek, and act in a green manner (Muisyo & Qin 2021).

Research conducted by Saadatian et al. (2009), based in one of the universities in Malaysia, asserts that responsibility for shared environmental sustainability involves adopting green practices on university campuses. Several comprehensive studies are underway in national higher education institutions, highlighting the current state of potential efforts. Rayner & Morgan (2018) state that while universities have relatively lower pollution emissions than the corporate sector, they bear significant responsibility for environmental awareness, research, and education of current and future generations about the importance of pro-environmental behavior. Additionally, the need for environmental sustainability in the campus environment has gained attention because activities and operations have direct or indirect impacts on the environment. Examples include material consumption, waste generation, circulation of people, excessive vehicles in the campus environment, and electricity use (Alshuwaikhat and Abubakar 2008).

Increasing environmental pressures, coupled with rising costs of resource consumption, have prompted universities to advocate for pro-environmental behavior and sustainable resource use, aligning with the views of (Mtutu and Thondhlana 2016). Recognizing their environmental responsibilities, more universities are integrating environmental management aspects into their policies, educational curricula, research projects, building design, technology, and other campus activities (Mikulik and Babina 2009). However, progress toward environmental sustainability remains slow (Watson et al. 2013).

According to Watson et al. (2013), most university leaders and faculty members globally are unaware of the concept of sustainable development and its application in universities. There has been little effort to incorporate sustainability principles into courses, research, and outreach programs. Watson et al. (2013) highlighted key stakeholders in universities, including academic directors, professors, and students. Ideally, sustainable development concepts should be included in the policies, processes, and learning of all these stakeholder members. In practice, this is almost impossible in the early stages of integrating environmental sustainability into the university system.

In the literature on campus environments, some researchers focus on top-down management transformation, while others emphasize bottom-up student-led green initiatives. However, in this case, the consideration of mid-level participants in the institution, such as directors of degree programs and their role in campus sustainability, is overlooked. Brinkhurst et al. (2011) stated that the joint commitment of the academic community involvement in higher education is an important factor for institutionalizing environmental sustainability practices. Environmental sustainability in higher education institutions requires adjustments in joint teaching courses and is highly dependent on the ability of Study Program Heads and their willingness to support these initiatives (Alfikalia, Haryanto, and Widyaningsih 2022). The role of the head of the study program is crucial to the process of developing campus sustainability, based on knowledge, technical skills, and direct relationships with superiors (managers) and subordinates (students). The head of the study program has a potentially impactful but often unrecognized role in sustainability. There is a need to support and encourage pro-environmental behaviors of course leaders to achieve lasting progress towards campus environmental performance (Brinkhurst et al. 2011).

1. Literature Review

1.1. Ability-Motivation-Opportunity (AMO) Grand Theory

Robbins (2001) argues that employee performance is symbolized as a function (f) of the relationship between ability (A) and motivation (M), so that, in a formula, work performance = (A x M). If anyone has a value below the standard, it will negatively affect the work performance itself. Then, Robbins (2001) suggests adding the opportunity factor (O) so that the equation becomes: work performance = f (A x M x O).

In line with Robbins's (2001) suggestion of adding the opportunity (O) factor in work performance, research by Mia et al., (2022) states that the Ability, Motivation, and Opportunity (AMO) Theory, originally proposed by Malinski et al. (1993) and developed by Boxall & MacKy (2009), has become a generally accepted framework for explaining how Human Resources (HR) policies can work and impact performance. It is very helpful in deciding which HR policies should be developed and implemented. According to research conducted by Boxall & Macky (2009), most studies on high-performance work practices use the AMO (Ability, Motivation, Opportunities) framework, either explicitly or implicitly. The model proposes that Human Resource (HR) practices contribute to improved employee performance by developing employees' abilities and skills to do their jobs, increasing employees' work motivation, and providing opportunities for employees to fully utilize their skills and be motivated.

1.2. Green Competence Building

According to Waqass (2021), green competence building is the set of skills needed to adapt products, services, and processes to climate change and related environmental and regulatory requirements. This type of competence is crucial for all sectors and at all levels within the workforce. Green skills will be required across various sectors and at all workforce levels.

As described by Anwar et al. (2020), green competence is the ability of individuals to interact with their immediate environment in a constructive way that reflects extraordinary enthusiasm. Research and development (R&D) along with green knowledge sharing, as emphasized by Borsanyi et al. (2021), are crucial for innovation within companies. Organizations utilize these technologies to create new products and processes, as well as enhance existing ones, thereby improving organizational performance economically, environmentally, and socially. According to Li et al. (2013), indicators of green competence building encompass green knowledge, green skills, green abilities, green attitudes, green behavior, and green awareness. The following are specific indicators of green competence building:

- Green knowledge: This involves understanding environmentally protective practices that individuals possess, influencing the decision-making process.
- Green skills: These are abilities possessed by individuals or employees pertaining to a job that contributes to environmental protection.
- Green abilities: This refers to the competence and attitude of employees in performing their work properly to ensure environmental sustainability in the workplace.
- Green attitude: It involves efforts to increase environmental awareness, manifested through important actions and attitudes, enabling individuals to contribute to environmental protection by choosing products that do not harm the environment.
- Green behavior: This represents efforts to choose green products over non-green ones, assuming they possess the same quality. This activity serves as an alternative solution to address environmental problems.
- Green awareness: This is the environmental value that employees prioritize, actively increasing their environmental knowledge in the operational processes of their work.

1.3. Green Employee Involvement

According to Lanatri Danirmala (2022), employee green involvement is defined as an opportunity for employees to engage in learning environmentally friendly strategies. These strategies aim to prevent current environmental problems. Further, it is suggested that the more employees are involved in activities to prevent environmental problems, the more aware they become of their commitment to protecting the environment. As stated by Putra (2015), higher employee interest in participating in such activities directly contributes to the development of environmental management. This employee involvement has a positive impact on both the workplace and the surrounding environment.

The participation of employees can also contribute to improving the current environment. From the results of the previous explanation, it can be concluded that employee green involvement is an environmentally friendly action that encourages employees to participate in maintaining the sustainability of the surrounding environment and fosters personal awareness in saving the world. According to Mahn & Poblete (2023), the implementation of environmentally friendly human resource management practices in the workplace can extend the impact on a person's personal life, stimulating them to adopt environmentally friendly living behaviors and reinforcing these behaviors. According to Eva et al. (2023), several indicators are related to employee green involvement, including:

- Environmentally friendly paper printing and recycling which involves the processing and reusing or recycling of paper from unused sources, creating high-value paper with economic and ecological benefits.
- Environmentally friendly social responsibility which signifies a commitment to building environmental awareness in the organization to enhance the quality of life and the environment, benefiting both the organization and the local community.
- Environmental education and training which refers to an ongoing environmental training program aimed at improving the abilities of human resources with awareness in protecting the environment.
- Eco-teams which are an important way to increase employee engagement in efforts to actively participate in maintaining the sustainability of the work environment and encouraging others to practice eco-awareness.

1.4.Green Work Life Balance

The definition of green work-life balance at work implies that an employee must be able to balance time spent at work with time before and after work. According to (Akpa et al. 2022), green work-life balance is a person's ability to balance the demands of work and personal needs, including those related to their family. Consistent with the theory mentioned, green work-life balance is defined as an individual's ability to fulfill work commitments along with family and other non-work commitments Sandiford & Green (2021). Work-Life Balance is a broad concept involving work priorities (career and ambitions) and life aspects (happiness, leisure, family, and spiritual development).

Abdulai Sawaneh & Kanko Kamara (2019) provide a more specific explanation of green work-life balance as the effective management of work alongside other essential activities such as family, community activities, volunteer work, self-development, travel, and recreation. Indicators to measure green work-life balance, according to Johnson et al. (2013), include:

- Time balance: the amount of time individuals can allocate to both their work and activities outside of work.
- Involvement balance: the quantity and level of psychological involvement a person has with their commitments in both work and activities outside of work.
- Satisfaction balance: the level of satisfaction a person experiences with their work activities and activities outside of work.

1.5.Green Organizational Culture

The definition of green organizational culture can be proposed as an integration of basic assumptions with the understanding that the organization must go beyond considerations of mutual benefit to adopt a broader perspective on itself and the sustainable development of the social environment, along with nature. According to Yodsuban et al. (2023), green organizational culture is broadly outlined as the extent to which the assumptions, values, symbols, and artifacts of the organization reflect the desire and need to operate in an environmentally sustainable manner. Green organizational culture is a set of shared beliefs, values, perspectives, norms, and practices that guide organizational members to behave responsibly toward the external environment during economic business processes (Fodor et al. 2021). This involves the environment and humans, making it necessary to cultivate a green culture because it promotes ecological development and sustainable economic growth based on politics, science, and aesthetics. According to Tahir et al. (2019), the indicators of green organizational culture consist of:

- Environmental problems are natural occurrences, events that happen as part of natural processes. These natural processes occur without causing significant consequences for the environmental system itself and can naturally recover later (homeostasis). However, environmental problems can no longer be considered solely natural because humans play a very significant role as a causal factor for environmental events.

- Environmental improvement by the organization is persistent, consistent, and regular, involving all elements of the organization at different levels. This is done as a means to reduce the level of waste and diversity, facilitating business processes, improving quality, and enhancing organizational performance. The goal is to create a safe environment that fosters innovation, increases creativity, and achieves excellence in competition.
- Environmental awareness is expressed as the awareness felt by consumers that consuming green products contributes positively to the environment.

1.6.Environmental Performance

According to Sturge et al. (2021), environmental performance can be interpreted as forces that influence, either directly or indirectly, the performance of organizations and companies. It can be concluded that environmental performance is a work process in which the environment interacts with each other according to a certain pattern, with each having characteristics and certain values regarding the organization that will not be separated from the environment in which the organization is located, along with its people.

Another understanding of environmental performance is expressed by Todd & Todd (2021), which defines the overall achievement of the company in managing environmental problems as a result of the implementation of the company's operational activities. According to Seebens et al., (2018), environmental performance is the company's efforts to create a good environment and carry out joint activities using materials that do not damage the environment. According to Teerawattana & Yang (2019), nine indicators in environmental performance are proposed. These indicators can be considered in the development of sustainable business, which is briefly described as:

1. Gaining a deeper comprehension of sustainability involves incorporating simple practices such as using containers, recycling, and printing on both sides of paper into all office activities.
2. Employees play a significant role in a sustainable strategy, with companies having the opportunity to engage them by assigning tasks like crafting and displaying the company's environmental vision. Empowering workers with clear goals and strategies can capitalize on their knowledge and commitment to the company.
3. Establishing ongoing two-way communication ensures that the company effectively communicates its sustainable strategies to stakeholders while also understanding and meeting public expectations.
4. Recognizing that the company's impact extends beyond the office necessitates a comprehensive understanding of the product life cycle, from design and materials to production, sales, consumer use, and post-use treatment, including recycling and repurposing.
5. A commitment to sustainability involves getting to know and visiting all suppliers, emphasizing the importance of understanding the entire supply chain to develop a more sustainable business.
6. Embracing sustainability requires collaboration not only within the company but also with competitors, other industries, NGOs, and the government. Transparency is increasingly essential, and businesses must operate openly to meet the growing demand for sustainability.
7. The business case for sustainability encompasses a broad spectrum of strategies, starting from employees and customers to suppliers. This continuous process of development and expansion is crucial for sustained success.
8. Recruiting new employees with a shared concern for sustainability, in addition to strong business knowledge, is a key step in making the company more sustainable.
9. Finding joy in sustainability involves innovating in line with the company's sustainability goals. This approach fosters a culture of happiness, encouraging creativity, innovation, and a willingness to experiment without fear.

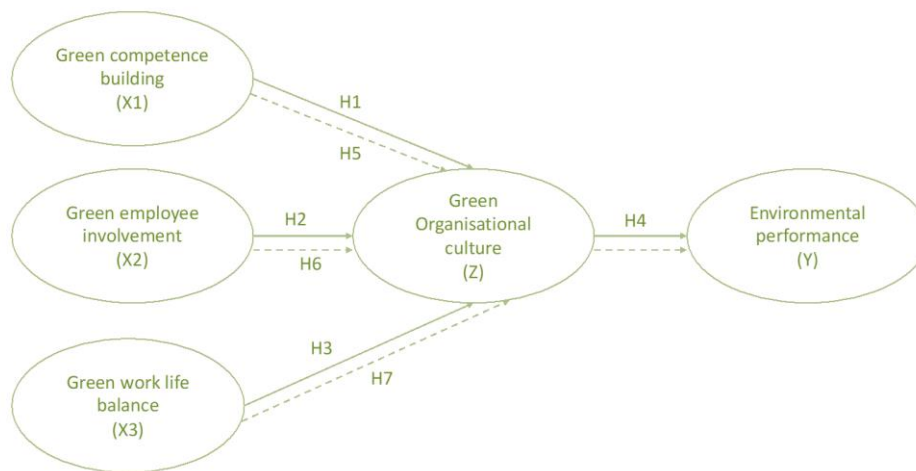
2. Research Hypothesis Development

Based on the conceptual framework picture, the hypotheses used in this study are as follows:

- H1: Green Competence Building affects the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.
- H2: Green Employee Involvement affects the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.
- H3: Green Work Life Balance affects the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.

- H4: Green Organizational Culture affects the Environmental Performance of the Head of the PGRI Higher Education Study Program in East Java.
- H5: Green Competence Building has a significant effect on Environmental Performance mediated by Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.
- H6: Green Employee Involvement has a significant effect on Environmental Performance, which is mediated by Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.
- H7: Green Work Life Balance has a significant effect on Environmental Performance, which is mediated by Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.

Figure 1. Conceptual framework



3. Research Methodology

This study employs three independent variables: Green Competence Building, Green Employee Involvement, and Green Work Life Balance. Additionally, it includes one mediating variable, Green Organizational Culture, and one dependent variable, Environmental Performance.

The measurement of Green Competence Building is based on the research by Li et al. (2013), comprising 6 indicators. Green Employee Involvement is measured according to the research of Eva et al. (2023), encompassing 4 indicators. Green Work Life Balance is measured using the research of Johnson et al. (2013), which includes 3 indicators. The measurement of Green Organizational Culture adopts the research by Tahir et al. (2019), consisting of 3 indicators. Finally, the measurement of Environmental Performance is based on Teerawattana & Yang (2019), comprising 9 indicators. All indicator items are rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The sampling technique utilizes a saturated sample or census, encompassing all Heads of PGRI Higher Education Study Programs in East Java, totaling 185 individuals. Data collection methods include questionnaires, interviews, and literature from various sources. The data analysis method employed is SEM PLS, utilizing the Warp PLS 7.0 tool, and testing involves the outer model, inner model, and hypothesis testing using P-Value.

The Head of the PGRI Higher Education Study Program in East Java is described as follows: there are 185 respondents, comprising 107 men and 78 women. The majority of respondents are above 50 years of age, with 4 respondents, and those aged 20-30 years. The highest level of education among respondents is at the S2 level, with 149 respondents, while S3 has 36 respondents, and S1 has 0 respondents. Based on length of service, the majority have a working period of 21-30 years (80 respondents), followed by 11-20 years (44 respondents) and 0-10 years (9 respondents).

2. Research Results

This study utilizes the Partial Least Squares (PLS) approach to path modeling for estimating measurement and structural parameters within the Structural Equation Model (SEM) (Chin 1998).

2.1.Outer Model

In PLS, a procedure similar to the method of Kleijnen et al. (2007) is employed to assess the psychometric properties of the measurement instruments, using reflective indicators for all research constructs. An initial null model, devoid of structural relationships, is estimated. Reliability is then evaluated using Composite Scale Reliability (CR) and Average Variance Extracted (AVE) (Fornell dan Larcker 1981), or Cronbach's Alpha (Malhotra et al., 1996). The criteria for CR are met if the value exceeds the cutoff of 0.700, and for AVE, the criterion is a value surpassing the cutoff of 0.500 (Fornell and Larcker, 1981).

Meanwhile, the criterion for meeting Cronbach's Alpha is exceeding the cutoff value of 0.600 (Malhotra, Agarwal, and Peterson 1996). Convergent validity is evaluated by examining standardized loadings on each construct (Chin 1998), with the criterion for fulfillment being standardized loadings exceeding 0.500. From Table 1, it is evident that all measures exhibit standardized loadings surpassing 0.500, implying that all variables meet the requirements of convergent validity.

The subsequent step involves assessing discriminant validity. Following the guidelines of Fornell and Larcker (1981), the AVE for each construct should be greater than the squared latent factor correlation between pairs of constructs, confirming satisfactory validity for all constructs. Table 1 illustrates that for all constructs, the CR value exceeds 0.700, Cronbach's Alpha value exceeds 0.600, and from Table 2, the AVE value surpasses 0.500. Consequently, it can be affirmed that all constructs demonstrate satisfactory discriminant validity and fulfill the reliability requirements.

Table 1. Validity and reliability measurement results

Variable	Indicator	Outer Loadings	Root Of AVE	Composite Reliability	Cronbach's Alpha
Green Competence Building	GCB1	0.926	0.933	0.976	0.970
	GCB2	0.932			
	GCB3	0.925			
	GCB4	0.945			
	GCB5	0.926			
	GCB6	0.942			
Green Employee Involvement	GEI1	0.942	0.935	0.965	0.952
	GEI2	0.944			
	GEI3	0.909			
	GEI4	0.944			
Green Work Life Balance	GWB1	0.857	0.876	0.908	0.848
	GWB2	0.862			
	GWB3	0.908			
Green Organizational Culture	GOC1	0.928	0.920	0.943	0.909
	GOC2	0.908			
	GOC3	0.924			
Environmental Performance	EP1	0.776	0.737	0.914	0.894
	EP2	0.788			
	EP3	0.733			
	EP4	0.762			
	EP5	0.787			
	EP6	0.724			
	EP7	0.689			
	EP8	0.731			
	EP9	0.633			

Source: Data processed by WarpPLS 7.0, 2023

From Table 1, the results of data processing show combined loadings, indicating that all factor loadings in measuring each research variable have values above 0.6 and are statistically significant ($p < 0.001$) or have a P value < 0.05 , confirming the validity of all indicators. The processing of the root value of AVE reveals that for the four variables, the root value of AVE exceeds the correlation value between latent variables. Consequently, all indicators serving as construct measures for the four research variables demonstrate valid discriminant validity.

Further analysis of the data processing involves examining the composite reliability coefficient and Cronbach's alpha coefficient. The test results indicate that all composite reliability values exceed 0.7, and all Cronbach's alpha values are greater than 0.6. Therefore, it can be concluded that the indicators for all variables

have met both composite reliability and internal consistency reliability criteria, demonstrating the acceptance of internal consistency reliability.

2.2. Inner Model

The processing of model fit and quality indices reveals the results of three fit indicators: Average Path Coefficient (APC), Average R-Squared (ARS), and Average Variance Inflation Factor (AVIF). P-values for APC and ARS indicators are calculated through resampling estimation and Bonferroni-like correlation. The P-values for APC, ARS, and AARS are all below 0.05, signifying significance. The AVIF value of 1.785, an indicator of multicollinearity, is less than 3.3, indicating that the data is considered ideal. Similarly, the AFVIF value of 1.724, also indicating multicollinearity, is less than 2.087, reinforcing the ideal nature of the data.

The Tenenhaus Goodness of Fit (GoF) displays a value of 0.547, falling into the large category. Additionally, Sympton's Paradox Ratio (SPR) and R-Squared Contribution Ratio (RSCR) have a value of 0.997, categorizing them as good. The Statistical Suppression Ratio (SSR) and Nonlinear Bivariate Causality Direction Ratio (NLBCDR) have a value of 1, which is deemed acceptable.

2.3. Hypothesis Test

Table 2. P Values

Direct Influences	Path Coefficient	P-value	Conclusion
Green Competence Building -> Green Organizational Culture	0.535	<0.001	Highly significant
Green Employee Involvement -> Green Organizational Culture	0.284	<0.001	Highly significant
Green Work Life Balance -> Green Organizational Culture	-0.016	0.412	Not Significant
Green Organizational Culture -> Environmental Performance	0.422	<0.001	Highly significant

Source: Data processed by WarpPLS 7.0

Based on the hypothesis testing conducted on 185 respondents as outlined in Table 2, the following hypotheses can be deduced:

H1: Green Competence Building has a significant effect on the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.

H2: Green Employee Involvement has a significant effect on the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.

H3: Green Work-Life Balance does not significantly affect the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.

H4: Green Organizational Culture has a significant effect on the Environmental Performance of the Head of the PGRI Higher Education Study Program in East Java.

2.4. Mediation Test

To identify mediation in the model, it can be determined by examining the P values of indirect effects for paths with two segments, where a P value ≤ 0.05 (Alpha 5%) indicates significance.

Table 3. P values of indirect effects for paths with two segments

Relationship between Variables			P-Value	Description
Independent Variable	Mediating Variable	Dependent Variable		
Green Competence Building	Green Organizational Culture	Environmental Performance	<0.001	Mediation
Green Employee Involvement	Green Organizational Culture	Environmental Performance	0.010	Mediation
Green Work Life Balance	Green Organizational Culture	Environmental Performance	0.447	Non-mediation

Source: Data processed by WarpPLS 7.0

Based on the P values of indirect effects for paths with two segments presented in Table 3, the following hypotheses can be inferred:

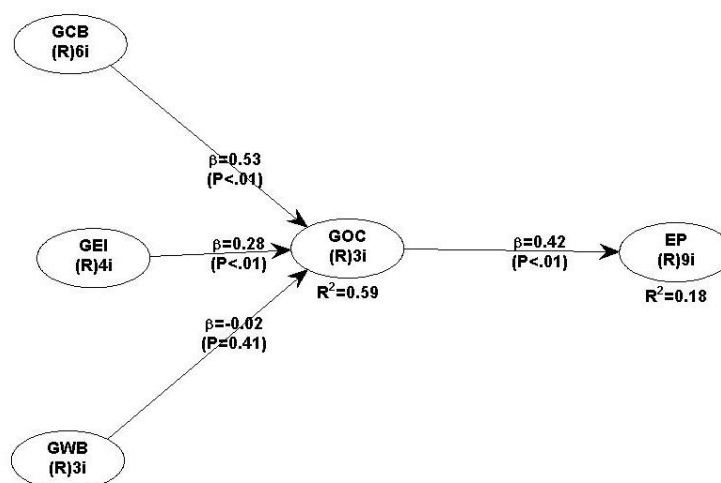
H5: Green Competence Building has a significant effect on Environmental Performance, which is mediated by the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.

H6: Green Employee Involvement has a significant effect on Environmental Performance, which is mediated by the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.

H7: Green Work-Life Balance has a significant effect on Environmental Performance, not mediated by the Green Organizational Culture of the Head of the PGRI Higher Education Study Program in East Java.

To determine whether the model exhibits full or partial mediation, one can examine the P-value values for both direct and indirect effects, as indicated by the data processing results:

Figure 2. Research model results



3. Discussions

The chairman of the PGRI Higher Education Study Program in the East Java region is generally knowledgeable about environmental protection to enhance environmental awareness. All study program leaders are required to prioritize the surrounding environment for sustainable environmental improvement. In the current scope of work, the chairman of the study program, according to their abilities, consistently completes tasks with attention to environmental considerations. Elevating environmental awareness within the higher education environment is deemed crucial. The head of the study program must opt for green products when they are of equal quality to non-green alternatives, underscoring the environment as a primary concern for promoting sustainable practices. Furthermore, the head of study program in the PGRI Higher Education East Java is obligated to establish environmental goals for each academic community, fostering environmental consciousness among all members. Neglecting the environment can disrupt the delicate balance of nature. The research findings indicate that green competence building positively influences the green organizational culture held by the Head of the PGRI Higher Education Study Program in the East Java region.

Study program leaders play a pivotal role by inspiring and mobilizing all stakeholders within the college environment to actively participate in sustainable environmental conservation initiatives. They can foster a collective commitment by instilling a sense of belonging to the sustainability of the university environment. The engagement of program leaders is critical in achieving the college's environmental goals, leading to increased commitment and motivation. Integrating sustainable environmental practices into the daily work culture goes beyond mere adoption, ensuring that these practices become a natural part of how study program leaders operate in higher education. In light of this description, it becomes evident that green employee involvement serves as a crucial catalyst for generating and reinforcing a green organizational culture. The results demonstrate that green employee involvement significantly influences the green organizational culture of the Head of the PGRI Higher Education Study Program in the East Java region.

The Head of the PGRI Higher Education Study Program in the East Java region should allocate more attention and focus to fulfill his duties. This is crucial to ensure he does not overlook the importance of maintaining a green work-life balance, which, in turn, could affect the development of a green organizational culture. Any disparity in perception regarding the significance of a green work-life balance among the Head of the Study Program and other campus stakeholders may impede the formation of an optimal green organizational culture. Failure to

strike a balance between these two aspects might not immediately manifest consequences, but over time, it could have a negative impact.

Efforts to establish a green work-life balance must be integrated with initiatives to cultivate a green organizational culture that aligns with environmental sustainability. Separating these endeavors or neglecting one over the other could hinder the desired outcomes. Insufficient information or understanding about these efforts within the internal campus community may further challenge the Head of the Study Program in achieving an effective balance, resulting in suboptimal results. The study's findings indicate that green work-life balance had an insignificant effect on the green organizational culture of the Head of the PGRI College Study Program in the East Java region.

Conclusions and Further Research

Notably, a positive and significant correlation exists between a green organizational culture and the environmental performance of the Head of the PGRI Higher Education Study Program in the East Java region. Policies established by the Head of the Study Program regarding green organizational culture play a pivotal role in enhancing environmental performance. A green organizational culture encompasses a set of beliefs, values, and norms that shape the Head of the Study Program's perspective on the importance of managing and empowering a culture that prioritizes environmental stewardship around the campus. The research results affirm that a green organizational culture significantly influences the environmental performance of the Head of the PGRI College Study Program in the East Java region.

The interpretation of a green organizational culture that is environmentally friendly serves as a mediator for the impact of green competence building, emphasizing environmental care, on environmental performance. This suggests that the Head of the PGRI Higher Education Study Program in the East Java region is making efforts to enhance the capacity of internal campus parties (by increasing their environmental care capabilities). The practice of green competence building has a positive impact on improving environmental performance, and this relationship can be influenced or mediated by focusing on the sustainability of the green organizational culture. The study's findings indicate that green competence building significantly affects environmental performance, and this impact is mediated by the green organizational culture of the Head of the PGRI Higher Education Study Program in East Java.

Similarly, green organizational culture acts as a mediator for the influence of green employee involvement on environmental performance. This implies that the effect of green employee involvement on environmental performance operates through the mechanism of green organizational culture. Green employee involvement is defined as the extent to which study program leaders engage in initiatives and activities related to efforts aimed at ensuring the sustainability of the college environment. Green organizational culture involves establishing policies that promote and support work activities aligning with environmental care. Environmental performance refers to the success of the study program leader in managing the environment for preservation. The research results show that green employee involvement significantly affects environmental performance, and this effect is mediated by the green organizational culture of the Head of the PGRI Higher Education Study Program in the East Java region.

However, green organizational culture cannot mediate the effect of green employee involvement on environmental performance. In this context, green employee involvement still pertains to the extent to which study program leaders participate in initiatives related to the sustainability of college environmental preservation. Green organizational culture, involving policies that encourage environmentally conscious work activities, does not play a mediating role in this relationship. The study's results indicate that green work-life balance has a significant effect on environmental performance, and this effect is not mediated by the green organizational culture of the Head of the PGRI Higher Education Study Program in the East Java region.

Credit Authorship Contribution Statement:

Deni Widyo Prasetyo: Contributed to conceptualization, investigation, methodology, project administration, software development, formal analysis, and original draft writing; Amiartuti Kusmaningtyas: Involved in investigation, methodology, supervision, data curation, validation, and contributed to writing through review and editing; Siti Mujanah: Contributed to investigation, methodology, supervision, data curation, validation, and played a role in writing through review and editing.

Declaration of Competing Interest:

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- [1] Abdulai Sawaneh, Ibrahim, and Fatmata Kanko Kamara. 2019. An Effective Employee Retention Policies as a Way to Boost Organizational Performance. *Journal of Human Resource Management*, 7(2): 41. <https://doi.org/10.11648/j.jhrm.20190702.12>
- [2] Aggarwal, Priyanka, and Tanuja Agarwala. 2021. Green Organizational Culture: An Exploration of Dimensions. *Global Business Review*. <https://doi.org/10.1177/09721509211049890>
- [3] Akpa, Onoja Matthew, Akinkunmi Paul Okekunle, Osahon Jeffery Asowata, Tinashe Chikowore, Shukri F. Mohamed, Fred Sarfo, Rufus Akinyemi, et al. 2022. Frequent Vegetable Consumption is Inversely Associated with Hypertension among Indigenous Africans. *European Journal of Preventive Cardiology*, 29(18): 2359–71. <https://doi.org/10.1093/eurjpc/zwac208>
- [4] Alfikalia, Alfikalia, Handrix Chris Haryanto, and Agustin Widyaningsih. 2022. Dinamika Pengelolaan Program Merdeka Belajar - Kampus Merdeka Pada Kampus Swasta. *Jurnal Studi Guru Dan Pembelajaran*, 5(1): 111–23. <https://doi.org/10.30605/jsgp.5.1.2022.1557>.
- [5] Algebra, T H E, O F Factor, and Structural Modeling. 1981. Erratum: Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, 18(4): 427. <https://doi.org/10.2307/3151335>
- [6] Alshuwaikhat, Habib, and Ismailia Abubakar. 2008. Higher Education for Sustainable Development An Integrated Approach to Achieving Campus Sustainability: Assessment of the Current Campus Environmental Management Practices. *Proceedings of the 4th International Barcelona Conference on Higher Education 7*.
- [7] Anwar, Ayesha, Meryem Malik, Vaneeza Raees, and Anjum Anwar. 2020. Role of Mass Media and Public Health Communications in the COVID-19 Pandemic, *Cureus*, 12(9). <https://doi.org/10.7759/cureus.10453>.
- [8] Borsanyi, Sz, Z. Fodor, J. N. Guenther, C. Hoelbling, S. D. Katz, L. Lellouch, T. Lippert, et al. 2021. Leading Hadronic Contribution to the Muon Magnetic Moment from Lattice QCD. *Nature*, 593(7857): 51–55. <https://doi.org/10.1038/s41586-021-03418-1>
- [9] Boxall, Peter, and Keith MacKy. 2009. Research and Theory on High-Performance Work Systems: Progressing the High-Involvement Stream. *Human Resource Management Journal*, 19(1): 3–23. <https://doi.org/10.1111/j.1748-8583.2008.00082.x>
- [10] Brinkhurst, Marena, Peter Rose, Gillian Maurice, and Josef Daniel Ackerman. 2011. “Achieving Campus Sustainability: Top-down, Bottom-up, or Neither?”, *International Journal of Sustainability in Higher Education*, 12(4): 338–54. <https://doi.org/10.1108/14676371111168269>
- [11] Chin, Wynne W. 1998. Issues and Opinion on Structural Equation Modeling, *MIS Quarterly: Management Information Systems*, 22(1)
- [12] Eva, Autores, Natalina Ferreira, Marcia Jaqueline, Nunes De Souza, Daniela Belo, Corrêa Oliveira, and Silva Baia. 2023. Intervenções Educativas De Enfermagem Para Procedimentos Cardíacos Eletivos: Apoio Emocional Para Equilíbrio Do Estresse E Ansiedade, 25248
- [13] Fodor, É., Gregor, A., Koltai, J. and Kováts, E. 2021. The Impact of COVID-19 on the Gender Division of Childcare Work in Hungary, *European Societies*, 23(S1): S95–110. <https://doi.org/10.1080/14616696.2020.1817522>
- [14] Hui, I. K., Alan H.S. Chan, and K. F. Pun. 2001. Study of the Environmental Management System Implementation Practices. *Journal of Cleaner Production*, 9(3): 269–76. [https://doi.org/10.1016/S0959-6526\(00\)00061-5](https://doi.org/10.1016/S0959-6526(00)00061-5)
- [15] Johnson, Philip J., Shukui Qin, Joong Won Park, Ronnie T.P. Poon, Jean Luc Raoul, Philip A. Philip, Chih Hung Hsu, et al. 2013. Brivanib versus Sorafenib as First-Line Therapy in Patients with Unresectable, Advanced Hepatocellular Carcinoma: Results from the Randomized Phase III BRISK-FL Study, *Journal of Clinical Oncology*, 31(28): 3517–24. <https://doi.org/10.1200/JCO.2012.48.4410>
- [16] Kleijnen, Mirella, Ko de Ruyter, and Martin Wetzels. 2007. An Assessment of Value Creation in Mobile Service Delivery and the Moderating Role of Time Consciousness, *Journal of Retailing*, 83(1): 33–46.

<https://doi.org/10.1016/j.jretai.2006.10.004>

- [17] Lanatri Danirmala. 2022. The Mediating Role of Green Training To the Influence of Green Organizational Culture To Green Organizational Citizenship Behavior and Green Employee Involvement, *International Journal of Human Capital Management*, 6(1): 66–75. <https://doi.org/10.21009/ijhcm.06.01.6>
- [18] Li, Yuan Yuan, Po Han Chen, David Ah Seng Chew, Chee Chong Teo, and You Quan Xu. 2013. "Project Management Factors Affecting Green Building Projects: Case Study of Singapore, *Applied Mechanics and Materials*, 357–360: 2346–52. <https://doi.org/10.4028/www.scientific.net/AMM.357-360.2346>
- [19] Mahn, Daniel, and Carlos Poblete. 2023. Contextualizing the Knowledge Spillover Theory of Entrepreneurship: The Chilean Paradox, *Entrepreneurship and Regional Development*, 35(1–2): 209–39. <https://doi.org/10.1080/08985626.2022.2117418>
- [20] Malhotra, Naresh K., James Agarwal, and Mart Peterson. 1996. Methodological Issues in Cross-Cultural Marketing Research: A State-of-the-Art Review, *International Marketing Review*, 13(5): 7–43. <https://doi.org/10.1108/02651339610131379>
- [21] Malinski, T., F. Bailey, Z. G. Zhang, and M. Chopp. 1993. "Nitric Oxide Measured by a Porphyrinic Microsensor in Rat Brain after Transient Middle Cerebral Artery Occlusion, *Journal of Cerebral Blood Flow and Metabolism* 13 (3): 355–58. <https://doi.org/10.1038/jcbfm.1993.48>
- [22] Mia, Mohammed Mamun, Shahid Rizwan, Nurul Mohammad Zayed, Vitalii Nitsenko, Oleksandr Miroshnyk, Halyna Kryshchal, and Roman Ostapenko. 2022. The Impact of Green Entrepreneurship on Social Change and Factors Influencing AMO Theory, *Systems*, 10(5). <https://doi.org/10.3390/systems10050132>
- [23] Mikulik, J., and M. Babina. 2009. The Role of Universities in Environmental Management. *Polish Journal of Environmental Studies*, 18(4): 527–31
- [24] Mtutu, Paidamoyo, and Gladman Thondhlana. 2016. Encouraging Pro-Environmental Behaviour: Energy Use and Recycling at Rhodes University, South Africa, *Habitat International*, 53: 142–50. <https://doi.org/10.1016/j.habitatint.2015.11.031>
- [25] Muisyo, Paul Kivinda, and Su Qin. 2021. Enhancing the FIRM'S Green Performance through Green HRM: The Moderating Role of Green Innovation Culture, *Journal of Cleaner Production*, 289: 125720. <https://doi.org/10.1016/j.jclepro.2020.125720>
- [26] Nogueira, Ricardo C., Barry D. Keim, David P. Brown, and Kevin D. Robbins. 2013. Variability of Rainfall from Tropical Cyclones in the Eastern USA and Its Association to the AMO and ENSO, *Theoretical and Applied Climatology*, 112(1–2): 273–83. <https://doi.org/10.1007/s00704-012-0722-y>
- [27] Putra, Siswanto Wijaya. 2015. Pengaruh Komitmen Organisasi, Budaya Organisasi, Gaya Kepemimpinan Dan Lingkungan Terhadap Kinerja Karyawan Pada Industri Kecil, *Jurnal Ekonomi MODERNISASI*, 11(1): 62. <https://doi.org/10.21067/jem.v11i1.869>
- [28] Rayner, Julie, and Damian Morgan. 2018. An Empirical Study of 'Green' Workplace Behaviours: Ability, Motivation and Opportunity, *Asia Pacific Journal of Human Resources*, 56(1): 56–78. <https://doi.org/10.1111/1744-7941.12151>
- [29] Saadatian, Omidreza, Elias Ilias Salleh, Osman Mohd Tahir, and Kamariah Dola. 2009. Observations of Sustainability Practices in Malaysian Research Universities: Highlighting Particular Strengths, *Pertanika Journal of Social Science and Humanities*, 17(2): 225–44
- [30] Sandiford, Peter John, and Sally Green. 2021. It's My Passion and Not Really Like Work': Balancing Precarity with the Work–Life of a Volunteer Team Leader in the Conservation Sector, *Work, Employment and Society*, 35(3): 595–605. <https://doi.org/10.1177/0950017020942052>
- [31] Seebens, Hanno, Tim M. Blackburn, Ellie E. Dyer, Piero Genovesi, Philip E. Hulme, Jonathan M. Jeschke, Shyama Pagad, et al. 2018. Global Rise in Emerging Alien Species Results from Increased Accessibility of New Source Pools, *Proceedings of the National Academy of Sciences of the United States of America*, 115(10): E2264–73. <https://doi.org/10.1073/pnas.1719429115>
- [32] Sturge, Jodi, Mirjam Klaassens, Debbie Lager, Gerd Weitkamp, Daan Vegter, and Louise Meijering. 2021.

- Using the Concept of Activity Space to Understand the Social Health of Older Adults Living with Memory Problems and Dementia at Home, *Social Science and Medicine*, 288: 113208. <https://doi.org/10.1016/j.socscimed.2020.113208>
- [33] Tahir, Rubab, Muhammad Razzaq Athar, Farida Faisal, Noor un Nissa Shahani, and Banazir Solangi. 2019. Green Organizational Culture: A Review of Literature and Future Research Agenda, *Annals of Contemporary Developments in Management & HR*, 1(1): 23–38. <https://doi.org/10.33166/acdmhr.2019.01.004>
- [34] Teerawattana, Rattaporn, and Yi Chih Yang. 2019. Environmental Performance Indicators for Green Port Policy Evaluation: Case Study of Laem Chabang Port, *Asian Journal of Shipping and Logistics*, 35(1): 63–69. <https://doi.org/10.1016/j.ajsl.2019.03.009>
- [35] Todd, Hazel, and David Todd. 2021. Poverty, Climate Change and Disaster Risk Reduction: Too Complex to Evaluate? Evaluating Environment in International Development. <https://doi.org/10.4324/9781003094821-5>
- [36] Watson, Mary Katherine, Rodrigo Lozano, Caroline Noyes, and Michael Rodgers. 2013. Assessing Curricula Contribution to Sustainability More Holistically: Experiences from the Integration of Curricula Assessment and Students' Perceptions at the Georgia Institute of Technology, *Journal of Cleaner Production*, 61: 106–16. <https://doi.org/10.1016/j.jclepro.2013.09.010>
- [37] Wijoyo, S., and Mashuri, M. A. 2020. Amo Development Strategy in Improving the Performance of BUMD In East Java Province, *Palarch's Journal of Archaeology*, 17 (December). <https://doi.org/10.13140/RG.2.2.28620.23689>
- [38] Yodsuban, Pairin, Supa Pengpid, Ruangurai Amornchai, Prakaikaeaw Siripoon, Weha Kasemsuk, and Nittaya Buasai. 2023. The Roles of Community Health Nurses for Older Adults during the COVID-19 Pandemic in Northeastern Thailand: A Qualitative Study, *International Journal of Nursing Sciences*, 10(1): 53–63. <https://doi.org/10.1016/j.ijnss.2022.12.014>