.

GREEN HRM AS A SUSTAINABLE HR STRATEGY: ITS IMPACT ON EMPLOYEE PRODUCTIVITY

Fitri Nur Hanifah[1]

[1]Master of Management Program, Widyatama University, Indonesia

Corresponding author: fitri.hanifah@widyatama.ac.id

Abstract

Green Human Resource Management (Green HRM), which focuses on environmentally sustainable HR practices, has increasingly become a strategic approach to support organizational sustainability. This research investigates the impact of Green HRM on employee productivity within an environmentally conscious manufacturing company. The study was carried out at PT. GMS (initials), a national private firm that integrates sustainability principles throughout its operations and human resource policies. Employing a quantitative methodology, data were collected via a survey using closed-ended questions on a 5-point Likert scale. A purposive sampling technique was used to select 50 permanent employees who had a minimum tenure of one year. Data analysis was conducted using SPSS version 26, encompassing descriptive statistics, classical assumption tests (normality and homoscedasticity), and simple linear regression to assess the influence of Green HRM on employee productivity. Findings reveal that Green HRM positively and significantly affects employee productivity, with a significance value of 0.046. The coefficient of determination (R^2) of 0.080 indicates that Green HRM accounts for 8% of the variation in productivity, while the remaining variance is attributed to other variables. The classical assumption tests confirmed that the data satisfy normality and homoscedasticity criteria. In conclusion, the study suggests that implementing Green HRM is an effective strategy for improving employee productivity. It is advised that organizations continue to reinforce Green HRM initiatives and integrate them with other management practices to achieve enhanced performance outcomes.

Keywords: *employee productivity, green HRM, human resource management, simple regression, sustainability*

INTRODUCTION

Global shifts in environmental and social conditions have led to significant changes in contemporary business practices and organizational management approaches. Challenges such as climate change, the depletion of natural resources, and growing expectations for environmental and social accountability have elevated sustainability to a central element in strategic corporate planning (Renwick et al., 2016; Yong et al., 2020). In response, companies are now expected not only to achieve financial success but also to actively contribute to environmental conservation and societal well-being, in line with the triple bottom line framework encompassing people, planet, and profit (Elkington, 2018).

Within this evolving landscape, the human resource management (HRM) function holds a pivotal position in advancing sustainability goals within organizations. The growing prominence of corporate social responsibility and environmental initiatives has given rise to a specialized form of HRM known as Green Human Resource Management (Green HRM). This concept refers to HR strategies and practices that integrate ecological values, such as environmentally conscious hiring processes, sustainability-oriented employee training, performance evaluations that consider ecological contributions, and incentive systems that reward environmentally responsible behavior (Renwick et al., 2016; Jabbour & de Sousa Jabbour, 2016; Dumont et al., 2017).

The primary aim of Green HRM is to build an environmentally conscious organizational culture and raise ecological awareness among employees, encouraging their active contribution to corporate sustainability strategies (Pham et al., 2019). Moreover, Green HRM is believed to enhance employee productivity through improved motivation, organizational commitment, and the creation of a healthy and supportive work environment (Tariq et al., 2016; Shah, 2019).

In this context, employee productivity becomes a crucial indicator for in-depth examination. Productivity not only reflects an individual's efficiency in task completion but also encompasses engagement, output quality, and contribution to organizational goals. In HRM literature, numerous studies highlight that

.
productivity can be influenced by employee involvement in sustainability activities and supportive organizational policies that balance economic and ecological interests (Yong et al., 2020; Singh et al., 2021).

A number of prior studies have indicated that the adoption of Green HRM is positively associated with improvements in employee productivity and performance. These practices are viewed as effective in cultivating a transparent and ethically driven workplace culture that promotes a healthy work-life balance, ultimately contributing to greater employee motivation and organizational commitment (Kim et al., 2019; Zibarras & Coan, 2015). However, most of these studies have been conducted in developed countries, while in developing nations such as Indonesia, Green HRM implementation remains in a growth phase and is not yet fully integrated into corporate management systems (Indriani & Ardyan, 2021).

Therefore, this study focuses on analyzing the effect of Green Human Resource Management on employee productivity. It is expected to contribute to the development of literature in sustainable HRM and provide practical references for organizations in designing HR strategies that not only improve employee performance but also support long-term sustainability goals.

RESEARCH METHODS

Research Approach and Type

This research employs a quantitative methodology through the use of a survey technique. The main aim of this method is to analyze, in statistical terms, the correlation between Green Human Resource Management (Green HRM) and employee productivity. Data collection was conducted using a structured questionnaire with a 5-point Likert scale, enabling participants to indicate their level of agreement with each provided statement (Sugiyono, 2017).

Brief Theoretical Overview

Green Human Resource Management (GHRM) involves embedding sustainability values within human resource strategies and operations. This includes eco-friendly approaches to recruitment, employee development, performance evaluation, and reward systems that encourage pro-environmental conduct in the workplace (Renwick et al., 2016; Jabbour & de Sousa Jabbour, 2016). The adoption of GHRM is viewed as a deliberate strategy aimed at strengthening employee participation in environmental programs and nurturing an organizational culture grounded in sustainability (Tang et al., 2018).

Employee productivity, on the other hand, is defined as the effectiveness of individuals in producing quality work output within a given timeframe and set of resources. Productivity is influenced by internal factors such as competence and motivation, as well as external factors including work conditions and organizational policies (Sutrisno, 2016; Khan et al., 2020). GHRM is believed to positively influence productivity by creating a healthy, collaborative, and ecologically meaningful work environment (Pham et al., 2019).

Research Hypothesis

The hypothesis proposed in this study is as follows:

H_1 : Green HRM has a significant effect on employee productivity.

Population and Sample

The population of this study comprises all employees at a green manufacturing company, PT. GMS (initials), a national private firm focused on producing consumer goods using recycled materials and renewable energy sources. This company applies sustainability principles throughout its value chain, including in its human resource management.

The sample consisted of 50 employees, selected through purposive sampling. The criteria for inclusion were permanent employees with a minimum of one year of service and direct experience with the company's sustainability-related HR policies. The sample size was considered adequate for conducting simple linear regression in a quantitative research context (Hair et al., 2019).

Research Instrument

This research employed a structured, closed-ended questionnaire developed from specific indicators corresponding to each variable. Responses were rated using a five-point Likert scale, spanning from "strongly disagree" to "strongly agree". The questionnaire comprised 8 indicators for the Green HRM variable and 10 indicators for the employee productivity variable. These indicators were developed based on relevant theories and previous studies, including those by Renwick et al. (2016), Jabbour et al. (2016), and Pham et al. (2019).

Data Analysis Techniques

Data collected from the questionnaires were analyzed using SPSS Statistics version 26. First, descriptive analysis was conducted to describe respondent profiles and the distribution of each variable. Subsequently, classical assumption tests were carried out, including normality testing using the normal probability plot and One-Sample Kolmogorov-Smirnov Test, and heteroscedasticity testing using the Glejser Test, to ensure that the data met the requirements for linear regression analysis.

The next step was simple linear regression analysis to examine the effect of Green HRM on employee productivity. The regression model used was as follows:

.

$$Y = a + bX + e \tag{1}$$

Where:
- Y = Employee Productivity
- X = Green HRM
- a = Constant
- b= Regression coefficient
- e = Error term

Significance testing was performed using partial t-tests to determine whether Green HRM had a statistically significant effect on employee productivity. Finally, the coefficient of determination (R^2) was used to measure the extent to which Green HRM contributed to the variation in employee productivity.

RESULTS AND DISCUSSIONS
Descriptive Analysis

Descriptive analysis was conducted to illustrate the respondents' tendencies regarding the research variables: Green Human Resource Management (GHRM) and employee productivity. The analysis was based on 50 fully completed questionnaires.

Table 1 Statistics Descriptive

Variable	Minimum	Maximum	Mean	Standard Deviation
Green Human Resource Management	8	40	28.76	6.85
Employee Productivity	35	50	41.60	3.39

Source : Data Processing Result, 2025

From the table 1, it can be seen that the GHRM scores ranged from 8 to 40, with a mean of 28.76 and a standard deviation of 6.85. This indicates that most employees perceive the implementation of environmentally focused HR policies in their company to be relatively good, though there are still variations in individual understanding and perception.

Meanwhile, employee productivity scores ranged from 35 to 50, with a mean of 41.60 and a standard deviation of 3.39. The relatively high mean and low deviation suggest that employees at this company exhibit consistently high levels of productivity, which may be partially influenced by internal factors such as the applied HRM system.

Classical Assumption Tests

Classical assumption testing was carried out to ensure that the data meet the requirements for conducting a simple linear regression analysis. Two assumptions were tested: normality and homoscedasticity.

Normality Test

Normality was assessed using both visual and statistical methods: the Normal P-P Plot and the One-Sample Kolmogorov-Smirnov Test.
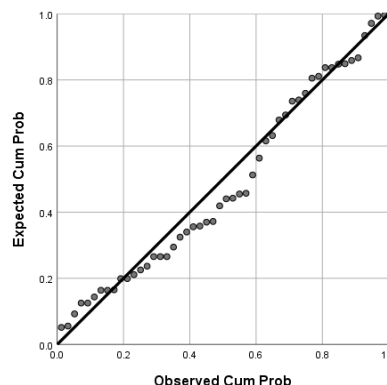
Figure 1
Normal P-P Plot of Regression Standardized Residual
Table 2 Result of Normality Test

Unstandardized Residual	Sig.
Kolmogorov Smirnov Test	0.000

Source : Data Processing Result, 2025

.

The Normal P-P Plot illustrated that the data points closely aligned with the diagonal line, suggesting that the residuals were approximately normally distributed. This visual inspection implies an absence of substantial deviations from the expected pattern. Furthermore, the Kolmogorov-Smirnov Test produced a significance value of 0.055, which exceeds the 0.05 threshold, indicating that the residuals do not significantly deviate from a normal distribution. Together, these findings confirm that the normality assumption has been met, reinforcing the appropriateness of applying the regression model.

Homoscedasticity Test

The Glejser Test was employed to determine whether the residual variance in the regression model is constant. This was done by regressing the absolute residuals on the independent variable.

Table 3 Result of Heteroscedasticity Test

Model		t	Sig.
1	(Constant)	3.529	0.001
	Green Human Resource Management	-1.205	0.234

Source : Data Processing Result, 2025

The test results showed a significance value of 0.234 (> 0.05) for the GHRM variable, indicating that there is no evidence of heteroscedasticity. This suggests that the residuals are evenly distributed, fulfilling the homoscedasticity assumption and confirming that the regression estimates are unbiased.

Simple Linear Regression and Hypothesis Testing

The purpose of this simple linear regression analysis was to assess the degree to which Green Human Resource Management (X) impacts employee productivity (Y).

Regression Equation

Based on the SPSS output, the regression equation is as follows:

$$Y = 37.566 + 0.140X$$

Interpretation:
- The constant (a) of 37.566 suggests that if GHRM is not implemented at all ($X = 0$), the theoretical employee productivity score would be 37.566.
- The regression coefficient (b) of 0.140 indicates that for every one-point increase in GHRM, employee productivity increases by 0.140 points, assuming other variables remain constant.

t-Test (Partial Hypothesis Testing)

The t-test was used to determine whether GHRM significantly influences employee productivity.

Table 4 Result of t-test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	37.566	2.023		18.570	0.000
	Green Human Resource Management	0.140	0.68	0.284	2.049	0.046

Source : Data Processing Result, 2025

Because the significance value is below 0.05, it can be concluded that Green Human Resource Management (GHRM) significantly influences employee productivity. Therefore, the alternative hypothesis (H_1) is supported, while the null hypothesis (H_0) is rejected.

Coefficient of Determination (R^2)

Table 5 Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.284	0.080	0.061	3.281

Source : Data Processing Result, 2025

The determination coefficient (R^2) is 0.080, which means that Green Human Resource Management accounts for 8% of the variation in employee productivity. The other 92% of the variation is influenced by factors outside the scope of this study.

.

This relatively low R^2 value suggests that although GHRM has a significant effect, its influence is partial and limited, implying that efforts to enhance employee productivity should not rely solely on GHRM but must consider additional contributing factors.

Discussion

The results indicate that Green Human Resource Management (GHRM) positively and significantly influences employee productivity. This finding reinforces the notion that environmentally focused HR practices go beyond being mere corporate branding efforts, as they can effectively shape employee behavior and enhance performance.

From a theoretical perspective, these findings are consistent with the views of Renwick et al. (2016) and Jabbour & de Sousa Jabbour (2016), who argue that GHRM fosters greater employee engagement by aligning individual values with those of the organization, particularly regarding sustainability and social responsibility. Employees who recognize their organization's commitment to sustainability tend to exhibit higher levels of motivation, loyalty, and productivity.

Furthermore, the results are in line with the empirical evidence provided by Pham et al. (2019), which demonstrates that green training and incentive initiatives foster positive employee attitudes, thereby boosting both individual and team performance.

Nonetheless, the relatively low R^2 value suggests that GHRM alone does not fully account for variations in employee productivity. Other critical factors such as leadership style, organizational culture, compensation systems, and interpersonal relationships within the workplace also play important roles. Thus, GHRM should be regarded as one component within a wider, integrated human resource management framework.

CONCLUSIONS AND SUGGESTIONS

The simple linear regression analysis demonstrates that Green Human Resource Management (GHRM) has a positive and statistically significant impact on employee productivity, as supported by a t-test significance value of 0.046 (less than 0.05), which validates the alternative hypothesis (H_1) and rejects the null hypothesis (H_0). This indicates that improving the implementation of GHRM practices within organizations is linked to higher levels of employee productivity. However, with a coefficient of determination (R^2) of only 0.080, GHRM explains just 8% of the variation in productivity, implying that other factors play a more substantial role in influencing employee performance.

Therefore, it is recommended that organizations continue to strengthen the consistent application of GHRM as part of a broader, integrated, and sustainable HR strategy aimed at enhancing overall organizational effectiveness rather than treating it as a standalone initiative. Additionally, future research should investigate other variables such as leadership style, organizational culture, and employee engagement to gain a more comprehensive understanding of the drivers of employee productivity. Utilizing a mixed-methods approach that combines quantitative and qualitative analyses is also encouraged to provide deeper and more nuanced insights into the role of GHRM across various organizational contexts.

REFERENCES

Dumont, J., Shen, J., & Deng, X. (2017). *Effects of Green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values*. Human Resource Management, 56(4), 613–627. https://doi.org/10.1002/hrm.21792

Elkington, J. (2018). *25 Years ago I coined the phrase "Triple Bottom Line." Here's why it's time to rethink it*. Harvard Business Review.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). Sage Publications.

Indriani, T., & Ardyan, E. (2021). *Green human resource management practices and environmental performance: A study of SMEs in Indonesia*. Jurnal Manajemen dan Kewirausahaan, 23(1), 45–54.

Jabbour, C. J. C., & de Sousa Jabbour, A. B. L. (2016). *Green Human Resource Management and green supply chain management: Linking two emerging agendas*. Journal of Cleaner Production, 112, 1824–1833. https://doi.org/10.1016/j.jclepro.2015.01.052

Khan, M. Z., Ahmed, I., & Shad, I. (2020). Impact of green HRM on employees' pro-environmental behavior and performance: Mediating role of green work engagement. *Sustainability*, 12(10), 1–18. https://doi.org/10.3390/su12104025

Kim, A., Kim, Y., Han, K., Jackson, S. E., & Ployhart, R. E. (2019). *Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy*. Journal of Management, 45(5), 2037–2069. https://doi.org/10.1177/0149206316683610

.

Pham, N. T., Tučková, Z., & Jabbour, C. J. C. (2019). *Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels?* A mixed-methods study. Tourism Management, 72, 386–399. https://doi.org/10.1016/j.tourman.2018.12.008

Renwick, D. W. S., Redman, T., & Maguire, S. (2016). *Green Human Resource Management: A review and research agenda*. International Journal of Management Reviews, 18(1), 1–14. https://doi.org/10.1111/ijmr.12030

Shah, S. Z. A., & El-Faitouri, R. (2019). *The role of green HRM in employee green behavior: A review*. International Journal of Economics, Commerce and Management, 7(5), 95–107.

Singh, S. K., Del Giudice, M., Chierici, R., & Graziano, D. (2021). *Green innovation and environmental performance: The role of green transformational leadership and green human resource management*. Technological Forecasting and Social Change, 162, 120388. https://doi.org/10.1016/j.techfore.2020.120388

Sugiyono. (2017). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.

Sutrisno, E. (2016). Manajemen Sumber Daya Manusia. Jakarta: Kencana.

Tang, G., Chen, Y., Jiang, Y., Paillé, P., & Jia, J. (2018). Green human resource management practices: Scale development and validity. *Asia Pacific Journal of Human Resources*, 56(1), 31–55.

Yong, J. Y., Yusliza, M. Y., Ramayah, T., & Fawehinmi, O. (2020). *Green Human Resource Management: A systematic literature review from 2007 to 2019*. Benchmarking: An International Journal, 27(7), 2005–2037. https://doi.org/10.1108/BIJ-12-2018-0438

Zibarras, L. D., & Coan, P. (2015). *HRM practices used to promote pro-environmental behavior: A UK survey*. International Journal of Human Resource Management, 26(16), 2121–2142. https://doi.org/10.1080/09585192.2014.972429