

IMPLEMENTATION OF GREEN HUMAN RESOURCE MANAGEMENT PRACTICES FOR SUSTAINABLE ENVIRONMENTAL PERFORMANCE: MOTIVATION AND JOB SATISFACTION AMONG HOSPITAL EMPLOYEES IN BATAM



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ABSTRACT

This study investigates the relationship between green human resource management (Green HRM) practices, motivation, job satisfaction, and sustainable environmental performance in hospitals located in Batam. The study population comprises 200 employees from five hospitals in the city. Data were analyzed using SmartPLS 3 to assess the structural relationships among the variables. The findings demonstrate that all proposed hypotheses are statistically significant. Green HRM practices positively influence job satisfaction, employee motivation, and sustainable environmental performance. In addition, job satisfaction and motivation are found to effectively mediate the relationship between Green HRM practices and sustainable environmental performance. This indicates that environmentally oriented HR policies not only directly enhance environmental outcomes but also indirectly strengthen them by fostering positive employee attitudes and motivation. These results highlight the strategic importance of implementing Green HRM practices to support organizational sustainability objectives. The novelty of this research lies in identifying job satisfaction and motivation as critical mediating mechanisms that amplify the impact of Green HRM practices on achieving optimal environmental performance within healthcare institutions.

Keywords: *Green HRM Practices; Sustainable Environmental Performance; Motivation; Job Satisfaction*

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INTRODUCTION

Hospitals are essential components of the healthcare system, providing a wide array of medical services to the public. Hospitals face numerous operational challenges that require effective and efficient management practices. One increasingly recognized approach is green human resource management (Green HRM) practices, which aim to enhance environmental sustainability through environmentally conscious human resources (Stikes et al., 2022). However, studies on the implementation of Green HRM practices in healthcare, particularly in hospitals, are limited. Most existing research on Green HRM has focused on manufacturing and technology-based industries (Isrososiawan et al., 2021). Furthermore, while several studies have examined the relationship between Green HRM and organizational performance, few have investigated the mediating role of motivation and job satisfaction in a hospital setting.

According to data from the Ministry of Environment and Forestry, there was a 30% increase in daily medical waste in Indonesia in 2019, rising from 293 tons to 382 tons. The data was collected from 2,820 hospitals and 9,884 community health centers nationwide (Universitas Gadjah Mada, 2019). Hospitals generate millions of tons of medical and non-medical waste every year. However, the management of medical waste remains suboptimal, particularly in terms of recycling efforts. The lack of adequate waste separation facilities at the source hinders the potential to recycle medical waste that could be effectively reused (Koran Batam, 2023).

Environmental sustainability is a key focus of the green hospital concept (Pham et al., 2019). The implementation of this concept requires evaluation and performance measurement based on guidelines from the Ministry of Health (Setyaningrum et al., 2024). Green human resource management (HRM) practices are designed to foster employee awareness of environmental issues through sustainable HRM efforts, such as eco-friendly training and green recruitment policies (Stikes et al., 2022). Despite the growing discussion around this topic, research on the effectiveness of these practices in improving hospital environmental performance is scarce (Ab & Wahyuni, 2023).

Motivation and job satisfaction play a crucial mediating role between green human resource management (Green HRM) and sustainable environmental performance (Irhamuddin et al., 2025). Employees who perceive their work as meaningful and impactful tend to be more motivated and satisfied (S. Riyanto et al., 2021). Sustainable environmental performance includes resource efficiency, emission reduction, and eco-friendly operational procedures that contribute to stakeholder satisfaction and institutional reputation (Khamdamov et al., 2023).

This study explores how implementing Green HRM practices in hospitals affects employee motivation and job satisfaction. The study also focuses on the extent to which Green HRM practices contribute to enhancing sustainable environmental performance. In this context, motivation and job satisfaction are considered not only outcomes of Green HRM practices but also key mediating factors in the relationship between Green HRM practices and hospitals' overall sustainable environmental performance (Danilwan et al., 2020).

LITERATURE REVIEW, RESEARCH FRAMEWORK, AND HYPOTHESES

The Relationship Between Green HRM Practices and Job Satisfaction

According to Isrososiawan et al., (2021), sustainable human resource management (SHRM) aims to promote efficient resource utilization and raise environmental awareness among employees. Environmentally friendly HRM practices contribute to sustainable environmental performance, enhance productivity and employee loyalty, and reduce

costs (Irani & Kilic, 2022; Sobaih et al., 2020). Job satisfaction is influenced by factors such as the work environment, compensation, and work-life balance (Febiola et al., 2024) and directly impacts employee motivation, efficiency, and loyalty (Moin et al., 2021). Green HRM practices play a crucial role in improving job satisfaction by incorporating environmental considerations into recruitment, providing sustainability training, conducting green performance evaluations, and fostering a safe and healthy work environment (Pinzone et al., 2019). Based on these considerations, the researcher proposes the following hypothesis:

H1: Green HRM practices have a significant positive effect on job satisfaction among hospital employees in Batam

The Relationship Between Green HRM Practices and Motivation

Environmentally friendly human resource management (HRM) practices can increase employees' enthusiasm and curiosity about maintaining environmental balance. Green employee motivation is essential for achieving sustainable environmental performance because without sufficient motivation, green initiatives cannot be effectively implemented (Ahmed & Ishtiaq, 2021). Motivation is related to individual characteristics and the willingness to work hard in various contexts (Khan et al., 2022). Green HRM practices increase motivation by offering environmentally aligned recruitment, sustainability training, green performance appraisals, and career development in sustainability fields (Kuo et al., 2022; Yu et al., 2020). Additionally, a safe and healthy work environment improves employee well-being and motivation, which ultimately drives organizational performance and sustainability (Pham et al., 2019). Based on this information, the researcher proposes the following hypothesis:

H2: Green HRM practices significantly affect motivation among hospital employees in Batam

The Relationship Between Job Satisfaction and Sustainable Environmental Performance

Job satisfaction motivates employees to engage in pro-environmental behavior and support the achievement of sustainable development goals. SEP involves contributing to ecological benefits, reducing environmental impacts, and efficiently using resources (Ahmad et al., 2021). High job satisfaction enhances employee commitment, productivity, and participation in eco-friendly initiatives (Al-Sabi et al., 2024). A satisfying work environment also fosters innovation and operational efficiency (Cao et al., 2024), which positively impacts the organization's reputation and long-term sustainability (Pinzone et al., 2019). Thus, job satisfaction is a key strategy for motivating employees, improving performance, and creating a better work-life balance (Davidescu et al., 2020). Based on this information, the researcher proposes the following hypothesis:

H3: Job satisfaction significantly affects sustainable environmental performance among hospital employees in Batam.

The Relationship Between Motivation and Sustainable Environmental Performance

Employees are encouraged and enthusiastic about engaging in pro-environmental behaviors or achieving sustainable development goals through motivation (Yafi et al., 2021). Shahab et al., (2020) define sustainable environmental performance (SEP) as individual accomplishments that produce ecological benefits and reduce negative environmental impacts. Motivation plays a crucial role in enhancing SEP (Graafland & Bovenberg, 2020). Motivated employees tend to be more engaged in environmental

initiatives, more innovative in green practices, more efficient in their work, and more committed to the organization's sustainability goals (Khamdamov et al., 2023). Organizations can achieve better environmental performance by increasing employee motivation, which benefits the environment, improves organizational reputation, and promotes long-term sustainability (Malik et al., 2021). Based on this information, the researcher proposes the following hypothesis:

H4: Motivation significantly affects sustainable environmental performance among hospital employees in Batam.

The Relationship Between Green HRM Practices and Sustainable Environmental Performance Mediated by Job Satisfaction

Implementing environmentally oriented HRM practices encourages employees to support and respond to the company's green goals (Tobing & Santyo Nugroho, 2024). The human resources department plays a crucial role in enhancing organizational competitiveness. Studies have shown that implementing green human resource management (Green HRM) practices significantly improves corporate sustainability performance (Lin et al., 2024). This approach involves applying HR strategies that focus on achieving environmental sustainability goals and stimulating employee development, loyalty, and active participation in these goals (Abdelhamied et al., 2023). Through the mediating role of job satisfaction, green HRM practices can influence sustainable environmental performance. Employees who are satisfied tend to be more effective at supporting the organization's sustainability goals (Farid et al., 2024). They can reduce resource consumption, improve operational efficiency, and innovate ways to minimize environmental impact. Thus, implementing Green HRM practices that prioritize job satisfaction can positively impact organizational environmental performance (Liu et al., 2023). Based on this information, the researcher proposes the following hypothesis:

H5: Green HRM practices significantly affect sustainable environmental performance through job satisfaction as mediation among hospital employees in Batam.

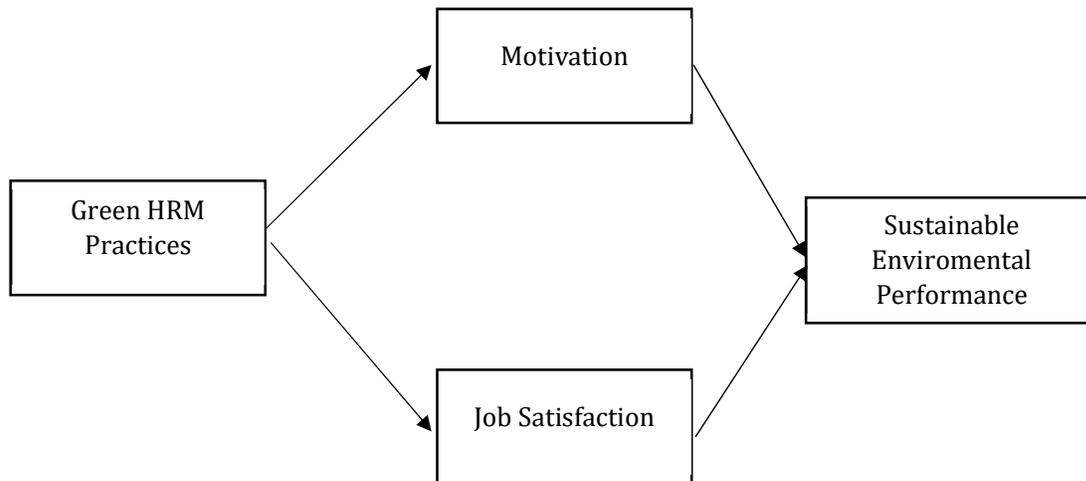
The Relationship Between Green HRM Practices and Sustainable Environmental Performance Mediated by Motivation

The intensive and systematic implementation of green human resource management (Green HRM) practices within organizations has the potential to shape highly environmentally conscious employee behavior. This behavior is evident in employees' initiative to perform tasks, fulfill responsibilities, and complete work with environmental sustainability in mind (F-Riyanto et al., 2024). Green HRM practices can positively impact sustainable environmental performance, and this relationship is partially explained by employee motivation to engage in pro-environmental behavior (Mwita, 2022). Green HRM aims to enhance employee awareness, knowledge, motivation, and engagement in environmentally friendly activities (Ziad Anwar & Jatmiko Jati, 2023). When an organization successfully implements GHRM, employees become more enthusiastic about carrying out environmentally responsible tasks because they share common values and engagement levels with their colleagues (Aina et al., 2019). Through the mediating role of motivation, green HRM practices can positively influence sustainable environmental performance. Motivated employees proactively recognize opportunities to improve energy efficiency, reduce waste, and implement green innovations in business operations. They are also more adaptable in aligning their behaviors with the organization's green practices (Al Shammre et al., 2023). Based on this information, the researcher proposes the following hypothesis:

H6: Green HRM practices significantly affect sustainable environmental performance through motivation as a mediator among hospital employees in Batam.

Research Framework

The figure 1 illustrates the conceptual framework of this study, highlighting the structural relationships among the research variables. Green Human Resource Management (Green HRM) Practices function as the independent variable that directly influences two mediating variables, namely Motivation and Job Satisfaction. In turn, both Motivation and Job Satisfaction affect Sustainable Environmental Performance, which serves as the dependent variable in this study.



Source : Adapted from Irani & Kilic (2022); Khamdamov et al., (2023)

Figure 1
Research Framework

Specifically, the model proposes that the implementation of environmentally oriented HR practices such as green recruitment, environmental training, green performance appraisal, and eco-based reward systems—enhances employees' motivation and job satisfaction. When employees perceive that their organization is committed to environmental sustainability, they are more likely to feel motivated and satisfied with their work. Higher levels of motivation encourage employees to actively participate in environmentally responsible behaviors, while greater job satisfaction strengthens their commitment to supporting sustainability initiatives. Consequently, these positive psychological conditions contribute to improved Sustainable Environmental Performance.

Overall, the framework suggests that Green HRM Practices not only have a direct impact on environmental performance but also exert an indirect effect through the mediating roles of Motivation and Job Satisfaction, thereby strengthening the organization's overall sustainability outcomes.

METHOD

This study employs a quantitative approach to examine the impact of green HRM practices and sustainable environmental performance on employee motivation and job satisfaction in hospitals. A quantitative approach utilizes numerical data and statistical analysis to answer research questions (Creswell & Inoue, 2024). This study was conducted in five hospitals, including four Type B hospitals and one Type C hospital. All of the hospitals met the criterion of having been in operation for at least five years. The reason hospital employees were chosen as the population is because health facilities operate continuously, consuming resources and generating medical waste. Implementing Green Human Resource Management (GHRM) practices in these settings can reduce negative environmental impacts by utilizing resources more efficiently and reducing waste (Ab & Wahyuni, 2023).

The sample size was determined using the formula proposed by Hair & Alamer, (2022), which is applicable when the total population is unknown. According to Hair et al., (2022), the minimum sample size should be five to ten times the number of indicator variables. With 19 indicators used in this study, the minimum required sample size is 190 respondents. To account for incomplete or invalid responses, an additional ten questionnaires were distributed, bringing the total to two hundred. Respondents completed the questionnaire based on a provided scale, aligning their answers with their actual experiences in the hospital setting.

The data were analyzed using the structural equation modeling (SEM) approach with the partial least squares (PLS) method and processed with SmartPLS 3 software (Aurellia & Perdana, 2020; Sentoso & Muchsinati, 2024). Each variable was measured using a 5-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree (Yuwono et al., 2022). This study used several indicator variables to create the questionnaire items. The Green HRM Practices variable included six items reflecting the organization's efforts to set environmental targets for employees, provide training to build green values and skills, and link environmentally friendly work behavior to performance evaluations, compensation systems, and promotion decisions (Tandon et al., 2023). The motivation variable consisted of six items (Khan et al., 2022) representing aspects such as personal satisfaction upon completing tasks, evaluation of individual performance, pride in work results, and initiative to improve work effectiveness. The job satisfaction variable was measured using three items (Nyathi & Kekwaletswe, 2024) that included opportunities to work independently, perform various tasks, and contribute to helping others. Fourth, the Sustainable Environmental Performance variable was assessed using five items from (Sobaih et al., 2020). These indicators capture the contribution of environmental activities to reducing waste, improving process quality and time efficiency, enhancing organizational image, and minimizing environmental impact throughout the value chain.

RESULTS AND DISCUSSION

The online questionnaire received 200 responses from participants who completed it. Table 1 presents the demographic information of the respondents.

Table 1
Respondent Demograph

Variable	Category	Frequency	Percentage
Gender	Female	118	59%
	Male	82	41%
Age	17-27	63	31.5%
	28-37	94	47%
	38-47	42	21%
	>47	1	0.5%
Last Education Level	High School/Vocation	1	0,5%
	Diploma Degree	45	22.5%
	Bachelor Degree	104	52%
	Master Degree	50	25%
Length of Employment	1 Year	13	6.5%
	1-2 Years	25	12.5
	2-3 Years	52	26%
	3-5 Years	35	17.5%
	>5 Years	75	37.5%

Source: Primary Data, 2024

Based on the Table 1, most respondents were female (59%), totaling 118 individuals, compared to 82 male respondents. In terms of age, the largest group of respondents was between 28 and 37 years old, totaling 94 individuals (47%). Regarding the highest level of education, most respondents held a bachelor's degree (S1), totaling 104 individuals (52%). Most respondents had worked for more than five years, totaling 75 individuals (37.5%).

Outer Model

Validitas Convergent

Convergent validity refers to the extent to which multiple indicators of a construct share a high proportion of variance in common. In other words, it assesses whether the indicators that are theoretically related to the same latent variable are empirically correlated and truly measure the intended construct. In the context of PLS-SEM, convergent validity ensures that the items designed to measure a specific construct actually converge or share a strong common core (Hair et al., 2022; Cheung et al., 2024).

The primary purpose of convergent validity testing is to confirm that the measurement model is adequate and that each construct is represented well by its indicators. Without adequate convergent validity, the interpretation of structural relationships between variables may become unreliable because the constructs themselves are not properly measured (Hair & Alamer, 2022).

In PLS-SEM, convergent validity is commonly assessed using two main criteria: outer loadings and Average Variance Extracted (AVE). First, the outer loading of each indicator should ideally be greater than 0.70, indicating that the indicator explains at least 49% of the variance of the latent construct. However, values between 0.60 and 0.70 are still acceptable in exploratory research, provided that other validity and reliability measures are satisfactory (Hair et al., 2022). Second, the AVE value for each construct should exceed 0.50, meaning that the construct explains more than half of the variance of its indicators (Cheung et al., 2024).

The decision-making process is conducted by comparing the empirical values with these threshold criteria. If the outer loading values are above 0.70 (or at least above 0.60 in acceptable cases) and the AVE values are greater than 0.50, then convergent validity is

considered established. Conversely, if the loading values fall substantially below the threshold, the researcher may consider removing or revising the indicator.

Referring to Table 2, all indicator outer loading values exceed 0.70, indicating that each indicator adequately represents its respective construct. Therefore, based on the recommended threshold criteria, the measurement model satisfies the requirements for convergent validity.

Table 2
Outer Loading

	Green HRM Practices	Job Satisfaction	Motivation	Sustainable Environmental Performance
GHRMP_1	0.860			
GHRMP_2	0.735			
GHRMP_3	0.762			
GHRMP_4	0.727			
GHRMP_5	0.765			
GHRMP_6	0.850			
JS_1		0.852		
JS_2		0.814		
JS_3		0.882		
M_1			0.876	
M_2			0.748	
M_3			0.817	
M_4			0.814	
M_5			0.845	
SEP_1				0.868
SEP_2				0.784
SEP_3				0.817
SEP_4				0.870
SEP_5				0.838

Source: Primary data, 2024

As seen in the Table 2, Some variables have values below 0.7. According to (Sihite et al., 2024), outer loadings greater than 0.7 meet the criteria for convergent validity. Values above 0.5 are also acceptable if the construct demonstrates good validity and reliability (Mangara et al., 2022).

The data analysis using SmartPLS 3 shows that all indicators meet the rule of thumb for assessing convergent validity, with results indicating values greater than 0.60 (Febriani et al., 2024). In the table, GHRM_1 has the highest outer loading value of 0.860 for the Green HRM Practices variable. For the job satisfaction variable, the highest outer loading is JS_3, with a value of 0.882. The highest value for the motivation variable is 0.876 in M_1. For the Sustainable Environmental Performance variable, the highest outer loading is SEP_4 at 0.870 (Meilani & Setiawan, 2024). Therefore, it can be concluded that all indicators are valid and demonstrate strong relationships with their respective constructs (Gultom et al., 2024).

Validity and Reliability Analysis

Construct Reliability and Validity

Construct reliability and validity are fundamental components of measurement model evaluation in Structural Equation Modeling (SEM). Construct reliability refers to the internal consistency of the indicators used to measure a latent variable, meaning the extent to which the items consistently represent the same construct. Construct validity,

on the other hand, assesses whether a set of indicators accurately measures the theoretical concept it is intended to represent (Hair et al., 2022; Cheung et al., 2024).

The primary purpose of assessing construct reliability and validity is to ensure that the measurement instrument produces consistent and accurate results before interpreting structural relationships among variables. If the constructs are not reliable and valid, the results of hypothesis testing may be biased or misleading (Hair & Alamer, 2022).

In PLS-SEM, construct reliability is commonly evaluated using Cronbach's Alpha, Composite Reliability (CR), and rho_A. The recommended threshold value for Cronbach's Alpha and Composite Reliability is greater than 0.70, indicating satisfactory internal consistency. Values between 0.60–0.70 may be acceptable in exploratory research, while values above 0.95 may indicate redundancy among indicators (Hair et al., 2022). Meanwhile, rho_A is considered a more accurate reliability estimator in PLS-SEM and should also exceed 0.70.

Construct validity, particularly convergent validity at the construct level, is assessed using the Average Variance Extracted (AVE). The AVE value should be greater than 0.50, meaning that the construct explains more than 50% of the variance of its indicators (Cheung et al., 2024).

The decision-making process involves comparing the empirical values with these recommended thresholds. If Cronbach's Alpha, Composite Reliability, and rho_A exceed 0.70, and AVE exceeds 0.50, the construct is considered reliable and valid. Conversely, if the values fall below these thresholds, the measurement model may require revision, such as removing weak indicators.

Referring to Table 3, all constructs demonstrate Cronbach's Alpha and Composite Reliability values above 0.70, and all AVE values exceed 0.50. Therefore, based on the recommended criteria, the constructs in this study meet the requirements for reliability and validity, indicating that the measurement model is statistically sound and suitable for further structural analysis.

Table 3
Construct Reliability And Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Green HRM Practices	0.876	0.894	0.906	0.616
Job Satisfaction	0.808	0.810	0.886	0.722
Motivation	0.878	0.884	0.912	0.674
Sustainable Environmental Performance	0.892	0.895	0.920	0.699

Source: Primary data, 2024

Validity and reliability are two fundamental concepts in research that ensure the quality of obtained data (Ahmed & Ishtiaq, 2021). A measurement instrument is considered reliable if it produces consistent results when measuring the same object at different times (Otaya et al., 2020). Validity assesses how accurately an instrument represents the concept being measured, and reliability evaluates the consistency of the measurement results (Sun et al., 2020). The reliability test results show that all constructs have Cronbach's alpha and composite reliability values above 0.7 (Francis et al., 2019), confirming that all constructs are reliable. Additionally, the convergent validity test results, based on Average Variance Extracted (AVE), show that the data meet the

convergent validity criteria, as the AVE values are all greater than 0.5 (G. W. Cheung et al., 2024).

Discriminant Validity

Fornell-Larcker Criterion

The Fornell–Larcker Criterion is a statistical approach used to assess discriminant validity in Structural Equation Modeling (SEM), particularly in PLS-SEM. Discriminant validity refers to the extent to which a construct is truly distinct from other constructs in the model. The Fornell–Larcker Criterion evaluates whether a latent variable shares more variance with its own indicators than with other latent variables (Fornell & Larcker, 1981; Hair et al., 2022).

The main purpose of the Fornell–Larcker Criterion is to ensure that each construct in the research model measures a unique concept and is not overly correlated with other constructs. Establishing discriminant validity is crucial because high correlations between constructs may indicate conceptual overlap, which can threaten the validity of the structural model (Cheung et al., 2024).

In practice, the Fornell–Larcker Criterion is assessed by comparing the square root of the Average Variance Extracted (AVE) of each construct with the correlations between that construct and other constructs in the model. The square root of AVE should be greater than the construct’s highest correlation with any other construct. This indicates that the construct explains more variance in its own indicators than it shares with other latent variables (Hair et al., 2022).

The decision-making process involves examining the diagonal values in the Fornell–Larcker matrix (which represent the square root of AVE) and comparing them to the off-diagonal correlation values in the same row and column. If the diagonal value is higher than all corresponding inter-construct correlations, discriminant validity is established. Conversely, if the correlation between two constructs exceeds the square root of AVE, discriminant validity may not be achieved, and further model refinement may be necessary.

Referring to Table 4, the square root of AVE values (shown on the diagonal) for Green HRM Practices, Job Satisfaction, Motivation, and Sustainable Environmental Performance are all greater than their respective correlations with other constructs. Therefore, based on the Fornell–Larcker Criterion, the measurement model satisfies the requirement for discriminant validity, confirming that each construct is empirically distinct from the others.

Table 4
Fornell-Larcker Criterion

	Green HRM Practices	Job Satisfaction	Motivation	Sustainable Environmental Performance
Green HRM Practices	0.785			
Job Satisfaction	0.490	0.850		
Motivation	0.506	0.521	0.821	
Sustainable Environmental Performance	0.658	0.567	0.511	0.836

Source: Primary data, 2024

Discriminant validity can be assessed using the Fornell-Larcker criterion, which states that a latent variable should share more variance with its own indicators than with other latent variables (Astuti, 2021). According to Table 4, the Green HRM Practices variable has a squared AVE value of 0.785, which exceeds its correlations with other

variables (0.490, 0.506, and 0.658) (Li & Fah Lay, 2024). The job satisfaction variable has the highest squared AVE value, 0.850, which exceeds its correlations with other constructs (0.521 and 0.567) (Hilkenmeier et al., 2020). The motivation variable also shows a higher squared AVE value of 0.821 than its correlations with other constructs (0.511). Similarly, the Sustainable Environmental Performance variable has a squared AVE value of 0.836, which exceeds its correlations with other constructs (Zmnako & Chalabi, 2019). These results from the Fornell-Larcker test indicate that the square root of the AVE for each construct exceeds the correlations with other latent constructs. Therefore, the discriminant validity requirement has been met (Rasoolimanesh et al., 2019).

Inner Model

Direct Effect (Path Coefficient)

Direct effect refers to the direct influence of an independent (exogenous) variable on a dependent (endogenous) variable in a structural model without involving any mediating variables. In the context of PLS-SEM, direct effects are represented by path coefficients that indicate the strength and direction of the relationship between constructs (Hair et al., 2022). The path coefficient shows whether the relationship is positive or negative and how strong the effect is.

The primary purpose of testing direct effects is to examine whether the proposed hypotheses regarding relationships between variables are statistically supported. Direct effect analysis allows researchers to determine whether changes in an independent variable lead to significant changes in a dependent variable (Hair & Alamer, 2022).

In PLS-SEM, the evaluation of direct effects is typically based on three main criteria: the path coefficient (β value), the t-statistic, and the p-value obtained through bootstrapping. The path coefficient indicates the magnitude and direction of the relationship, with values closer to +1 or -1 reflecting stronger relationships. To determine statistical significance, the t-statistic should exceed 1.96 for a 5% significance level (two-tailed test), and the p-value should be less than 0.05 (Hair et al., 2022). If these criteria are met, the relationship is considered statistically significant.

The decision-making process involves comparing the empirical t-statistic and p-value with the critical thresholds. If the t-statistic > 1.96 and p-value < 0.05 , the hypothesis is accepted (significant effect). Conversely, if the t-statistic ≤ 1.96 and p-value ≥ 0.05 , the hypothesis is rejected (no significant effect).

Referring to Table 5, all proposed direct relationships show t-statistics greater than 1.96 and p-values below 0.05. Therefore, based on the recommended criteria, the direct effects in this study are statistically significant, indicating that Green HRM Practices significantly influence Job Satisfaction and Motivation, and both Job Satisfaction and Motivation significantly affect Sustainable Environmental Performance.

The path coefficient is a crucial method used to separate the direct and indirect effects of independent variables on dependent variables (Upadhyay, 2020). Direct effect testing examines the influence between variables. The following table 5 illustrates the relationships between the variables.

Table 5
Direct Effect

	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Description
Green HRM Practices -> Job Satisfaction	0.110	4.448	0.000	Significant
Green HRM Practices -> Motivation	0.110	4.585	0.000	Significant
Job Satisfaction -> Sustainable Environmental Performance	0.105	3.944	0.000	Significant
Motivation -> Sustainable Environmental Performance	0.099	2.992	0.003	Significant

Source: Primary data, 2024

The first hypothesis test shows that green HRM practices significantly impact job satisfaction. Implementing environmentally conscious HR policies creates a supportive work environment that makes employees feel valued, thereby increasing job satisfaction (Borkhatariya et al., 2022). Meanwhile, the second hypothesis shows that green HRM practices also significantly influence motivation. Activities such as environmental training, reward systems, and involvement in sustainability programs enhance employees' intrinsic motivation because they feel they are contributing meaningfully to the organization (Chaurasia et al., 2020). Regarding the third hypothesis, the results reveal that job satisfaction has a notable effect on sustainable environmental performance. Employees who are satisfied with their jobs tend to be more environmentally conscious and actively support sustainability initiatives (Ramos et al., 2019). Lastly, the fourth hypothesis confirms that motivation also significantly affects sustainable environmental performance. Highly motivated employees are more enthusiastic about supporting operational efficiency, waste reduction, and implementing eco-friendly policies (Aye & Htwe, 2019).

Indirect Effects

Indirect effect refers to the influence of an independent (exogenous) variable on a dependent (endogenous) variable through one or more mediating variables. In Structural Equation Modeling (SEM), particularly in PLS-SEM, an indirect effect occurs when a predictor variable affects an outcome variable via a mediator that transmits the effect (Hair et al., 2022). In other words, the relationship between two variables is not purely direct but operates through an intermediate construct.

The main purpose of testing indirect effects is to examine the presence of mediation and to understand the mechanism through which an independent variable influences a dependent variable. Mediation analysis helps clarify whether the effect occurs entirely through the mediator (full mediation) or partially through both direct and indirect paths (partial mediation) (Hair & Alamer, 2022; Cheung & Cheung, 2024).

In PLS-SEM, indirect effects are typically assessed using the bootstrapping procedure. The evaluation criteria are based on the t-statistic and p-value of the indirect path coefficient. For a two-tailed test at the 5% significance level, the t-statistic should exceed 1.96 and the p-value should be less than 0.05 to indicate a statistically significant

indirect effect (Hair et al., 2022). If these criteria are satisfied, the mediation effect is considered significant.

The decision-making process involves comparing the bootstrapping results with the critical values. If the t-statistic > 1.96 and p-value < 0.05, the indirect effect is significant, and mediation is supported. If these thresholds are not met, the mediation effect is not supported. Furthermore, to determine whether the mediation is partial or full, researchers compare the significance of both direct and indirect effects.

Referring to Table 6, the indirect paths from Green HRM Practices to Sustainable Environmental Performance through Job Satisfaction and through Motivation both show t-statistics greater than 1.96 and p-values below 0.05. Therefore, based on the recommended criteria, the indirect effects are statistically significant, indicating that Job Satisfaction and Motivation significantly mediate the relationship between Green HRM Practices and Sustainable Environmental Performance. Indirect effect testing determines the influence of one variable on another (Cheung & Cheung, 2024). The following Table 6 shows the relationships among the variables.

Table 6
Indirect Effects

	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Description
Green HRM Pratices -> Job Satisfaction -> Sustainable Environmental Performance	0.081	2.503	0.013	Significant
Green HRM Pratices -> Motivation -> Sustainable Environmental Performance	0.067	2.247	0.025	Significant

Source: Primary data, 2024

The results of Hypothesis 5, which examines the effect of green human resource management (Green HRM) practices on sustainable environmental performance through job satisfaction, show that the T-statistic value is greater than 1.96 and the P-value is less than 0.05 (Stein et al., 2022). These results indicate that the influence of green HRM practices on sustainable environmental performance through job satisfaction is significant (Zambrano-Monserrate et al., 2020). The results of hypothesis 6, which tests the influence of green HRM practices on sustainable environmental performance through motivation, also show a T-statistic value greater than 1.96 and a p-value below 0.05 (LEE et al., 2021). These results confirm that green HRM practices significantly influence sustainable environmental performance through motivation (Chung et al., 2022).

R Square

R Square (R^2), also known as the coefficient of determination, is a statistical measure used in Structural Equation Modeling (SEM), particularly in PLS-SEM, to evaluate the explanatory power of the structural model. R^2 indicates the proportion of variance in an endogenous (dependent) construct that is explained by its exogenous (independent) predictor variables (Hair et al., 2022). In other words, it shows how well the independent variables collectively explain the dependent variable.

The primary purpose of R^2 is to assess the predictive accuracy and explanatory strength of the structural model. A higher R^2 value indicates that the model has stronger

explanatory power, meaning that the independent variables provide substantial information about the dependent construct (Hair & Alamer, 2022).

In PLS-SEM, R^2 values are generally interpreted using the following guideline thresholds:

- 0.75 = substantial (strong) explanatory power
- 0.50 = moderate explanatory power
- 0.25 = weak explanatory power

These threshold values are commonly used as rules of thumb, although acceptable levels may vary depending on the research context and discipline (Hair et al., 2022). The decision-making process involves comparing the calculated R^2 values with these benchmark criteria. If the R^2 value is closer to 0.75, the model is considered strong in explaining the endogenous construct. If it is around 0.50, the explanatory power is moderate. If it is around 0.25 or below, the explanatory power is considered weak, indicating that other variables not included in the model may influence the construct.

Referring to Table 7, the R^2 value for Job Satisfaction is 0.236, indicating weak explanatory power. The R^2 value for Motivation is 0.252, which falls within the weak to moderate range. Meanwhile, Sustainable Environmental Performance has an R^2 value of 0.377, indicating moderate explanatory power. These results suggest that while the model explains a meaningful portion of the variance in the endogenous constructs, additional variables outside the model may also contribute to explaining these outcomes (Hair et al., 2022).

Table 7
R Square

	R Square
Job Satisfaction	0.236
Motivation	0.252
Sustainable Environmental Performance	0.377

Source: Primary data, 2024

The coefficient of determination, or R-squared, measures the extent to which endogenous variables are influenced by other variables. R-square assesses the impact of changes in independent variables on dependent variables. It is typically classified into three categories: strong (0.75), moderate (0.50), and weak (0.25) (Pongmakamba & Tambotoh, 2023). Based on the table above, the R-square value for the job satisfaction variable is 0.236, indicating that the model explains 23.6% of the variation in job satisfaction (Syahputra et al., 2024). The R-square value for the motivation variable is 0.252, meaning that 25.2% of the variation in motivation can be explained by the variables in the model. The Sustainable Environmental Performance variable has the highest R-squared value, 0.377, suggesting that the model accounts for 37.7% of the variation in environmental performance (Lakoni & Hidayati, 2022). Nevertheless, these R-square values imply that other factors outside the model influence these variables (Rahmadi & Matasowifin, 2021).

CONCLUSION AND SUGGESTION

This study analyzed data from 200 hospital employees and found a significant relationship between green human resource management (Green HRM) practices, job satisfaction, motivation, and sustainable environmental performance. Implementing

green HRM practices was proven to significantly impact job satisfaction and motivation levels.

Direct effect analysis showed that environmentally based HRM strategies shape employees' positive perceptions of the organization, ultimately enhancing job satisfaction and motivation. Furthermore, job satisfaction and motivation were found to play a crucial role in improving sustainable environmental performance. This suggests that satisfied and motivated employees are more likely to engage in environmentally sustainable activities. Additionally, the study revealed an indirect effect of green HRM practices on sustainable environmental performance through increased job satisfaction and motivation. In other words, implementing Green HRM practices can promote better sustainable environmental performance by strengthening employees' psychological and emotional well-being. Validity and reliability tests indicated that all constructs and indicators met the appropriate statistical criteria, including convergent and discriminant validity and reliability. These results confirm that the research instruments are trustworthy and relevant.

However, the R-square values for the endogenous variables indicate that the model's ability to explain the dependent variables ranges from weak to moderate. This suggests that other factors outside the model may influence the research outcomes and should be considered in future studies. Overall, the findings of this study emphasize that applying environmentally oriented human resource management in the hospital sector supports achieving sustainability goals and positively impacts employees' work experiences. This approach demonstrates the potential for integrating environmentally conscious organizational strategies with enhancing human resource well-being.

Hospital management is encouraged to optimize the implementation of green human resource management (Green HRM) in an integrated manner that covers the entire HR management process, from recruitment to rewards. This will support the achievement of sustainable environmental performance. Training programs on environmental awareness should be included in the employee development agenda to increase motivation and job satisfaction. Additionally, encouraging active employee participation in environmental initiatives, such as forming green teams within each department, can strengthen engagement and foster an environmentally conscious work culture. Periodic reviews of the implementation of Green HRM are necessary to ensure its effectiveness in promoting employee well-being and improving environmental performance.

Future research is recommended to incorporate additional variables such as green organizational culture, green organizational citizenship behavior, and green transformational leadership to enhance the explanatory power of the model. These variables may serve as mediators or moderators that strengthen the relationship between Green HRM practices and sustainable environmental performance. Furthermore, future studies may consider examining psychological factors such as environmental awareness or green self-efficacy to better understand how employees translate motivation into actual pro-environmental behavior. Expanding the research to different sectors and adopting longitudinal designs would also provide a broader understanding of the long-term impact of Green HRM implementation.

REFERENCES

- Ab, F., & Wahyuni, D. (2023). Implementation of Green Human Resource Management in Improving Environmental Performance at Hospital in Makassar. *Innovation*

- Business Management and Accounting Journal*, 2(3), 157–164.
<https://doi.org/10.56070/ibmaj.v2i3.52>
- Abdelhamied, H. H., Elbaz, A. M., Al-Romeedy, B. S., & Amer, T. M. (2023). Linking Green Human Resource Practices and Sustainable Performance: The Mediating Role of Job Satisfaction and Green Motivation. *Sustainability (Switzerland)*, 15(6).
<https://doi.org/10.3390/su15064835>
- Ahmad, N., Scholz, M., Aldhaen, E., Ullah, Z., & Scholz, P. (2021). Improving Firm's Economic and Environmental Performance Through the Sustainable and Innovative Environment: Evidence From an Emerging Economy. *Frontiers in Psychology*, 12(November), 1–12. <https://doi.org/10.3389/fpsyg.2021.651394>
- Ahmed, I., & Ishtiaq, S. (2021). Reliability and validity: Importance in Medical Research. In *Journal of the Pakistan Medical Association* (Vol. 71, Issue 10, pp. 2401–2406). Pakistan Medical Association. <https://doi.org/10.47391/JPMA.06-861>
- Aina, N., Mohd Zaki, B., & Norazman, I. (2019). The Relationship between Employee Motivation towards Green HRM Mediates by Green Employee Empowerment: A Systematic Review and Conceptual Analysis. In *Journal of Research in Psychology* (Vol. 1, Issue 2). <https://doi.org/10.31580/jrp.v1i2.946>
- Al Shammre, A. S., Alshebami, A. S., Ali Seraj, A. H., Elshaer, I. A., & Al Marri, S. H. (2023). Unleashing environmental performance: The impact of green entrepreneurial motivation on small enterprises. *Frontiers in Environmental Science*, 11. <https://doi.org/10.3389/fenvs.2023.1176804>
- Al-Sabi, S. M., Al-Ababneh, M. M., Al Qsssem, A. H., Afaneh, J. A. A., & Elshaer, I. A. (2024). Green human resource management practices and environmental performance: the mediating role of job satisfaction and pro-environmental behavior. *Cogent Business and Management*, 11(1).
<https://doi.org/10.1080/23311975.2024.2328316>
- Astuti, C. C. (2021). PLS-SEM Analysis to Know Factors Affecting The Interest of Buying Halal Food in Muslim Students. *Jurnal Varian*, 4(2), 141–152.
<https://doi.org/10.30812/varian.v4i2.1141>
- Aurellia, T., & Perdana, H. (2020). Penerapan Structural Equation Modeling Partial Least Square Pada Kepuasan Masyarakat Terhadap Pelayanan Publik Kepolisian Kalimantan Barat. *BIMASTER: Buletin Ilmiah Matematika, Statistika Dan Terapannya*, 9. <https://doi.org/https://doi.org/10.26418/bbimst.v9i4.41825>
- Aye, M., & Htwe, N. M. (2019). Trait Association and Path Coefficient Analysis for Yield Traits in Myanmar Sesame (*Sesamum indicum* L.) Germplasm. *Journal of Experimental Agriculture International*, 1–10.
<https://doi.org/10.9734/jeai/2019/v41i330402>
- Borkhatariya, T., Sondarava, P., & Patel, R. (2022). Character Association and Path coefficient Analysis among Diverse Genotypes of Forage Maize (*Zea mays* L.). <https://www.researchgate.net/publication/362946333>
- Cao, S., Xu, P., Qalati, S. A., & Wu, K. (2024). Impact of Employee Environmental Concerns on Sustainable Practices: Investigating Organizational Commitment and Job Satisfaction. *Sustainability (Switzerland)*, 16(13).
<https://doi.org/10.3390/su16135823>
- Chaurasia, N. K., Singh, B., Nirala, R., & Mandal, S. S. (2020). Trait association and path coefficient analysis in maize (*Zea mays* L.) for grain yield and its attributes. ~ 527 ~ *Journal of Pharmacognosy and Phytochemistry*, 9(6). www.phytojournal.com
- Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2024). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review

- and best-practice recommendations. *Asia Pacific Journal of Management*, 41(2), 745–783. <https://doi.org/10.1007/s10490-023-09871-y>
- Cheung, S. F., & Cheung, S. H. (2024). manyome: An R package for computing the indirect effects, conditional effects, and conditional indirect effects, standardized or unstandardized, and their bootstrap confidence intervals, in many (though not all) models. *Behavior Research Methods*, 56(5), 4862–4882. <https://doi.org/10.3758/s13428-023-02224-z>
- Chung, G., Lanier, P., & Wong, P. Y. J. (2022). Mediating Effects of Parental Stress on Harsh Parenting and Parent-Child Relationship during Coronavirus (COVID-19) Pandemic in Singapore. *Journal of Family Violence*, 37(5), 801–812. <https://doi.org/10.1007/s10896-020-00200-1>
- Creswell, J. W., & Inoue, M. (2024). A process for conducting mixed methods data analysis. *Journal of General and Family Medicine*. <https://doi.org/10.1002/jgf2.736>
- Danilwan, Y., Isnaini, D., Pratama, I., & Dirhamsyah. (2020). Inducing organizational citizenship behavior through green human resource management bundle: drawing implications for environmentally sustainable performance. A case study. *Journal of Security and Sustainability Issues*, 10, 39–52. [https://doi.org/10.9770/jssi.2020.10.oct\(3\)1](https://doi.org/10.9770/jssi.2020.10.oct(3)1)
- Davidescu, A. A. M., Apostu, S. A., Paul, A., & Casuneanu, I. (2020). Work flexibility, job satisfaction, and job performance among romanian employees-Implications for sustainable human resource management. *Sustainability (Switzerland)*, 12(15). <https://doi.org/10.3390/su12156086>
- Farid, R., Jurina, E., & Asri, D. H. (2024). Peranan Sustainable HRM Practices Terhadap Job Satisfaction Dan Turnover Intentions Pada Perusahaan Manufaktur Di Kota Batam. *Journal Of Management Small and Medium Enterprises*, 17, 1–18. <http://dx.doi.org/10.35508/jom.v17i3.17711>
- Febiola, B., Donal Mon, M., & Setyawan, A. (2024). The influence of discipline and allowances on employee performance through job satisfaction as a mediating variable evidence. *Jurnal Manajemen Dan Pemasaran Jasa*, 17(1), 117–134. <https://doi.org/10.25105/jmpj.v17i1.19084>
- Febriani, N., Kusnandar, D., & Perdana, H. (2024). Pemodelan Indeks Pembangunan Kesehatan Masyarakat Di Kalimantan Barat Menggunakan Structural Equation Modeling-Partial Least Square. In *Buletin Ilmiah Math. Stat. dan Terapannya (Bimaster)* (Vol. 13, Issue 3).
- Francis, L. J., Crea, G., & McKenna, U. (2019). The Purpose-in-Life Scale (PILS): internal consistency reliability, concurrent validity and construct validity among Catholic priests in Italy. *Mental Health, Religion and Culture*, 22(6), 602–613. <https://doi.org/10.1080/13674676.2018.1538205>
- Graafland, J., & Bovenberg, L. (2020). Government regulation, business leaders' motivations and environmental performance of SMEs. *Journal of Environmental Planning and Management*, 63(8), 1335–1355. <https://doi.org/10.1080/09640568.2019.1663159>
- Gultom, H. A., Siburian Paningkat, & Toni Nagian. (2024). The Role of Job Satisfaction in Mediating Green Organizational Culture and Servant Leadership on Lecturer Performance in Indonesia. *Journal of System and Management Sciences*, 14. <https://doi.org/10.33168/jsms.2024.1101>
- Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied

- example. *Research Methods in Applied Linguistics*, 1(3).
<https://doi.org/10.1016/j.rmal.2022.100027>
- Hair, J., Hult, T., Ringle, C., Sarstedt, M., Danks, N., & Ray, S. (2022). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*.
<https://doi.org/https://doi.org/10.1007/978-3-030-80519-7>
- Hilkenmeier, F., Bohndick, C., Bohndick, T., & Hilkenmeier, J. (2020). Assessing Distinctiveness in Multidimensional Instruments Without Access to Raw Data – A Manifest Fornell-Larcker Criterion. *Frontiers in Psychology*, 11.
<https://doi.org/10.3389/fpsyg.2020.00223>
- Irani, F., & Kilic, H. (2022). An assessment of implementing green HRM practices on environmental performance: The moderating role of green process innovation. *Journal of Global Hospitality and Tourism*, 1(1), 16–30.
<https://doi.org/10.5038/2771-5957.1.1.1001>
- Irhamuddin, A., Adam, M. A., & Utha, M. (2025). Peran Kebijakan Green HR Dalam Meningkatkan Kapitalisasi Pengetahuan di Sektor Properti. *Jemasi: Jurnal Ekonomi Manajemen Dan Akuntansi*, 21(1), 1–20.
<https://doi.org/10.35449/jemasi.v21i1.941>
- Isrososiawan, S., Rahayu, A., & Wibowo, L. A. (2021). Green Human Resources Management Mendukung Kinerja Lingkungan Industri Perhotelan. *Jurnal Co Management*, 3(2), 457–470. <https://doi.org/10.32670/comanagement.v3i2.425>
- Khamdamov, A., Tang, Z., & Hussain, M. A. (2023). Unpacking Parallel Mediation Processes between Green HRM Practices and Sustainable Environmental Performance: Evidence from Uzbekistan. *Sustainability*, 15(2), 1434.
<https://doi.org/10.3390/su15021434>
- Khan, A. J., Ul Hameed, W., Iqbal, J., Shah, A. A., Tariq, M. A. U. R., & Bashir, F. (2022). Green HRM and employee efficiency: The mediating role of employee motivation in emerging small businesses. *Frontiers in Environmental Science*, 10(November), 1–10. <https://doi.org/10.3389/fenvs.2022.1044629>
- Kuo, Y. K., Khan, T. I., Islam, S. U., Abdullah, F. Z., Pradana, M., & Kaewsang-on, R. (2022). Impact of Green HRM Practices on Environmental Performance: The Mediating Role of Green Innovation. *Frontiers in Psychology*, 13(June).
<https://doi.org/10.3389/fpsyg.2022.916723>
- Lakoni, I., & Hidayati, A. (2022). *Analisis Kebijakan Deviden Sebagai Faktor Yang Memoderasi Pengaruh Firm Size Dan Liquidity Terhadap Harga Saham Pada Perusahaan Property Dan Real Estate Di Bursa Efek Indonesia* (Vol. 9, Issue 1).
<https://doi.org/10.55963/jumpa.v9i1.423>
- Lee, H. R., Sung, J., & Lee, S. (2021). Point and Interval Estimators of an Indirect Effect for a Binary Outcome. *International Journal of Assessment Tools in Education*, 8(2), 279–295. <https://doi.org/10.21449/ijate.773659>
- Li, W., & Fah Lay, Y. (2024). Examining the Reliability and Validity of Measuring Scales related to Informatization Instructional Leadership Using PLS-SEM Approach. *DINAMIKA Jurnal Ilmiah Pendidikan Dasar*, 1–22.
<https://doi.org/10.30595/Dinamika/v16i1.19768>
- Lin, Z., Gu, H., Gillani, K. Z., & Fahlevi, M. (2024). Impact of Green Work–Life Balance and Green Human Resource Management Practices on Corporate Sustainability Performance and Employee Retention: Mediation of Green Innovation and Organisational Culture. *Sustainability (Switzerland)*, 16(15).
<https://doi.org/10.3390/su16156621>

- Liu, R., Yue, Z., Ijaz, A., Lutfi, A., & Mao, J. (2023). Sustainable Business Performance: Examining the Role of Green HRM Practices, Green Innovation and Responsible Leadership through the Lens of Pro-Environmental Behavior. *Sustainability (Switzerland)*, 15(9). <https://doi.org/10.3390/su15097317>
- Malik, S. Y., Mughal, Y. H., Azam, T., Cao, Y., Wan, Z., Zhu, H., & Thurasamy, R. (2021). Corporate social responsibility, green human resources management, and sustainable performance: is organizational citizenship behavior towards environment the missing link? *Sustainability (Switzerland)*, 13(3), 1–24. <https://doi.org/10.3390/su13031044>
- Mangara, Wibisono, C., & Khaddafi, M. (2022). Analysis Of The Effect Of Leadership, Communication, And Motivation On Turnover Intention With Intervening Commitment Organization Variables At Pt Medianusa Permana, Batam City. In *International Journal of Social Science*. <http://dx.doi.org/10.54443/ijset.v2i1.122>
- Meilani, Y. F. C. P., & Setiawan, I. (2024). *Green Human Resource Management, Motivasi Internal, Dukungan Organisasi Terhadap Kepuasan Kerja Tenaga Kesehatan Rumah Sakit Militer Tingkat II XYZ-Jayapura*. <https://ojs.uph.edu/index.php/NCBMA/article/view/8786/0>
- Moin, M. F., Omar, M. K., Wei, F., Rasheed, M. I., & Hameed, Z. (2021). Green HRM and psychological safety: how transformational leadership drives follower's job satisfaction. *Current Issues in Tourism*, 24(16), 2269–2277. <https://doi.org/10.1080/13683500.2020.1829569>
- Mwita, K. (2022). Conceptual Review Of Green Human Resource Management Practices. In *East African Journal of Social and Applied Sciences* (Vol. 2019, Issue 2). www.mocu.ac.tz
- Nyathi, M., & Kekwaletswe, R. (2024). Electronic human resource management (e-HRM) configuration for organizational success: inclusion of employee outcomes as contextual variables. *Journal of Organizational Effectiveness*, 11(1), 196–212. <https://doi.org/10.1108/JOEPP-08-2022-0237>
- Otaya, L. G., Kartowagiran, B., & Retnawati, H. (2020). The construct validity and reliability of the lesson plan assessment instrument in primary schools. *Jurnal Prima Edukasia*, 8(2), 115–125. <https://doi.org/10.21831/jpe.v8i2.33135>
- Pham, N. T., Tučková, Z., & Chiappetta Jabbour, C. J. (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>
- Pinzone, M., Guerci, M., Lettieri, E., & Huisingh, D. (2019). Effects of 'green' training on pro-environmental behaviors and job satisfaction: Evidence from the Italian healthcare sector. *Journal of Cleaner Production*, 226, 221–232. <https://doi.org/10.1016/j.jclepro.2019.04.048>
- Pongmakamba, C. Y., & Tambotoh, J. J. C. (2023). Evaluasi Sistem Informasi Akademik Satya Wacana Menerapkan Model for Mandatory Use of Software Technologies. *JURIKOM (Jurnal Riset Komputer)*, 10(2), 387. <https://doi.org/10.30865/jurikom.v10i2.5837>
- Rahmadi, I. H., & Matasowifin, A. (2021). *Pengaruh Intellectual Capital Terhadap Kinerja Keuangan dan Nilai Perusahaan (Studi Kasus Perusahaan Sektor Keuangan yang Terdaftar di Bursa Efek Indonesia Tahun 2017-2019)*. 04. <https://doi.org/https://doi.org/10.31842/jurnalinobis.v4i2.183>

- Ramos, J. C., Bertol, I., Bandeira, D. H., Barbosa, F. T., & Zangiski, F. (2019). Path coefficient analysis, a different approach to identify soil quality indicators. *Revista Brasileira de Engenharia Agrícola e Ambiental*, 23(7), 545–551. <https://doi.org/10.1590/1807-1929/agriambi.v23n7p545-551>
- Rasoolimanesh, S. M., Md Noor, S., Schuberth, F., & Jaafar, M. (2019). Investigating the effects of tourist engagement on satisfaction and loyalty. *Service Industries Journal*, 39(7–8), 559–574. <https://doi.org/10.1080/02642069.2019.1570152>
- Riyanto, F., Mujib, M., & Damar, H. (2024). Meningkatkan Kinerja Karyawan Melalui Green Human Resource Management: Peran Mediasi Green OCB Dan Green Behavior. *Jurnal Nusantara Aplikasi Manajemen Bisnis*, 9(1), 198–213. <https://doi.org/10.29407/nusamba.v9i1.21454>
- Riyanto, S., Endri, E., & Herlisha, N. (2021). Effect of work motivation and job satisfaction on employee performance: Mediating role of employee engagement. In *Problems and Perspectives in Management* (Vol. 19, Issue 3, pp. 162–174). LLC CPC Business Perspectives. [https://doi.org/10.21511/ppm.19\(3\).2021.14](https://doi.org/10.21511/ppm.19(3).2021.14)
- Sentoso, A., & Muchsinati, E. S. (2024). Determining employee engagement and its influence on employee performance at holding state-owned enterprises insurance and guarantees Riau Islands region. *Jurnal Manajemen Dan Pemasaran Jasa*, 17(1), 39–58. <https://doi.org/10.25105/jmpj.v17i1.18516>
- Setyaningrum, R. P., Ratnasari, S. L., Soelistya, D., Purwati, T., Desembrianita, E., & Fahlevi, M. (2024). Green human resource management and millennial retention in Indonesian tech startups: mediating roles of job expectations and self-efficacy. *Cogent Business and Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2348718>
- Shahab, Y., Ntim, C. G., Chen, Y., Ullah, F., Li, H. X., & Ye, Z. (2020). Chief executive officer attributes, sustainable performance, environmental performance, and environmental reporting: New insights from upper echelons perspective. *Business Strategy and the Environment*, 29(1), 1–16. <https://doi.org/10.1002/bse.2345>
- Sihite, R., Wibisono, C., Catrayasa, W., & Satriawan, B. (2024). *The Effect of Transactional Leadership, Organizational on Employee Job Satisfaction With Work Motivation As An Intervening Variable In The Agency Regional Finance And Asset Management Karimun Regency*. <https://doi.org/http://dx.doi.org/10.38142/ijess.v5i4.1143>
- Sobaih, A. E. E., Hasanein, A., & Elshaer, I. (2020). Influences of green human resources management on environmental performance in small lodging enterprises: The role of green innovation. *Sustainability (Switzerland)*, 12(24), 1–19. <https://doi.org/10.3390/su122410371>
- Stein, J. F., Borasio, F., Syren, M.-L., Turolo, S., Agostoni, C., Molteni, M., Antonietti, A., & Lorusso, M. L. (2022). *Direct and Indirect Effects of Blood Levels of Omega-3 and Omega-6 Fatty Acids on Reading and Writing (Dis)Abilities*. <https://doi.org/10.3390/brainsci>
- Stikes, I. R., Husada, W., Widodo, A., Djati, M. S., Ciptadi, G., Rupiwardani, I., Djati, M. S., & Handoyo, S. (2022). *The Green Hospital Implementation through the Criteria of Management Performance Framework and Environmental Performance*. 20, 16–4313. <https://doi.org/10.48047/NQ.2022.20.16.NQ880438>
- Sun, Y., Fu, Z., Bo, Q., Mao, Z., Ma, X., & Wang, C. (2020). The reliability and validity of PHQ-9 in patients with major depressive disorder in psychiatric hospital. *BMC Psychiatry*, 20(1). <https://doi.org/10.1186/s12888-020-02885-6>
- Syahputra, P. A., Fauzi, A., Wijayanti, M., Bhayangkara, U., & Raya, J. (2024). Hubungan antara lingkungan kerja, stres kerja dan konflik kerja terhadap kinerja karyawan

- pada pt.xx. In *Indonesian Journal of Economics and Strategic Management (IJESM)* (Vol. 2, Issue 1). <https://repository.ubharajaya.ac.id/id/eprint/33485>
- Tandon, A., Dhir, A., Madan, P., Srivastava, S., & Nicolau, J. L. (2023). Green and non-green outcomes of green human resource management (GHRM) in the tourism context. *Tourism Management, 98*. <https://doi.org/10.1016/j.tourman.2023.104765>
- Tobing, R., & Santyo Nugroho, D. (2024). *Green human resource management of sustainable performance: the mediating role of digital innovation* (Vol. 13, Issue 2). <https://doi.org/10.46367/iqtishaduna.v13i2.2150>
- Upadhyay, K. (2020). Correlation and path coefficient analysis among yield and yield attributing traits of wheat (*Triticum aestivum* L.) genotypes. *Archives of Agriculture and Environmental Science, 5*(2), 196–199. <https://doi.org/10.26832/24566632.2020.0502017>
- Yafi, E., Tehseen, S., & Haider, S. A. (2021). Impact of green training on environmental performance through mediating role of competencies and motivation. *Sustainability (Switzerland), 13*(10). <https://doi.org/10.3390/su13105624>
- Yu, W., Chavez, R., Feng, M., Wong, C. Y., & Fynes, B. (2020). Green human resource management and environmental cooperation: An ability-motivation-opportunity and contingency perspective. *International Journal of Production Economics, 219*, 224–235. <https://doi.org/10.1016/j.ijpe.2019.06.013>
- Yuwono, W., Danito, D., & Nainggolan, F. (2022). *The effect of authentic leadership and transparent organizational communication on employee welfare with mediation variables of employee trust in medium companies* (Issue 35). www.upo.es/revistas/index.php/RevMetCuant/article/view/6439
- Zambrano-Monserrate, M. A., Ruano, M. A., & Sanchez-Alcalde, L. (2020). Indirect effects of COVID-19 on the environment. *Science of the Total Environment, 728*. <https://doi.org/10.1016/j.scitotenv.2020.138813>
- Ziad, A.M., & Jatmiko Jati, L. (2023). *Increasing the Organizational Green Performance through Green HRM Practices and Islamic Spiritual Intelligence. 4*(4). <https://doi.org/10.55314/tsg.v4i4.626>
- Zmnako, S. S. F., & Chalabi, Y. I. (2019). Cross-cultural adaptation, reliability, and validity of the Vertigo symptom scale-short form in the central Kurdish dialect. *Health and Quality of Life Outcomes, 17*(1). <https://doi.org/10.1186/s12955-019-1168-z>