



# The Impact of Green Human Resource Management (GHRM) on Work Productivity Mediated by Environmental Performance

Evin Nabilla<sup>1</sup>, Ahmad Mardalis<sup>1</sup>(✉), Nur Achmad<sup>1</sup>, and Minhayati Saleh<sup>2</sup>

<sup>1</sup> Management Department, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia  
am180@ums.ac.id

<sup>2</sup> Mathematic Department, UIN Walisongo, Semarang, Indonesia

**Abstract.** This study examines the effect of green human resource management on work productivity with environmental performance as a moderating variable. PT. Apsara Tiyasa Sambada, Klaten Regency. This study involved 42 employees of the company's office to be used as respondents using a saturated sample, which involved the entire population as a sample. The data collection tool in this study uses a Google form using a Likert scale as a measure. The data analysis technique used in this study uses the SEM model with the partial least squares (PLS) approach. The results of this study show that green human resource management has a positive and significant effect on work productivity. Still, environmental performance does not moderate or does not affect green human resource management and work productivity.

**Keywords:** Green human resource management, · Employee work productivity, · Environmental performance

## 1 Introduction

Humans are the most critical factor in every activity in organizational life and companies due to the line of offense or the interaction of individuals in it. It causes dynamics in an organization/company. To carry out operational tasks, the company must have employees to carry out these activities. Activities carried out by employees within the company can show their existence in favorable terms, meaning they can deliver good performance in the eyes of outsiders, especially the community. Improved individual employee performance will drive overall performance, which is reflected in increased productivity [1].

Work productivity allows a significant influence on their work activities. A conducive environment will support the work productivity of its employees. Productivity is a measure of production in the form of services or commodities against inputs in the form of labor, capital, modules, or raw materials and equipment. The critical factors for the success of work productivity for the company's employees are good work and high morale skills so that they can expect a job with promising results [2].

One factor that affects work productivity is the atmosphere factor because the atmosphere factor can affect the level of performance achieved by a person, a supportive atmosphere, for example, the existence of good business facilities, a quiet room, and recognition of the comments of other colleagues. These leaders understand the needs of employees and are not authoritarian but democratic. A supportive work system will encourage more outstanding performance achievement than unsupportive working conditions where there are authoritarian leaders, unsatisfactory service, and role pressure, which will result in low employee performance [3].

Recently in the field of HR, the issue of green human resource management, commonly interpreted as green human resource management, has emerged, which has identified itself as a new research path and a new competitive measure [4].

In today's business world, companies are experiencing new challenges related to their business continuity. Companies must protect the environment and improve environmental-based human resource management strategies to survive in the business world. For organizations, green human resource management is a crucial business strategy [5].

The interviews provide a picture almost the same as the questionnaire results conducted on 42 companies that understand the concept of GHRM. They believe implementing GHRM can increase company productivity, especially for companies oriented toward developing products for international markets [6].

Environmental performance reflects results that show how well the company's commitment to protection. Environmental performance can be assessed by various indicators such as low ecological emissions, pollution control, waste minimization, and recycling activities and can be improved by environmentally friendly human resource management [7]. The quality of the work environment that is good and following the human condition as a worker will support the performance and productivity of the work produced [8].

Given the research gap discussed in this study [9], considering the different roles that GHRM practices play in developing environmental performance, the gap in relevance has been widely recognized by the literature. Latest. They acknowledge that most of the existing research on GHRM is focused on the impact of specific GHRM practices on environmental performance. Consequently, they explicitly call for studies that simultaneously consider the different effects of different GHRM methods on environmental performance.

Based on previous research, there is a gap between this study and previous research. This study explores the relationship between GHRM on work productivity and moderated environmental performance.

## **2 Literature Review and Hypothesis**

### **2.1 Work Productivity**

The implementation of the policy has to do with efforts to achieve the objectives of the stipulation of a particular policy (Hamdi, 2014). Policy implementation was influenced by the content and context of the procedure (Grindle, 1997), while Hamdi (2014) said

the success of policy implementation was influenced by several factors, namely: the substance of the policy, the behavior of the implementer, the interaction of work networks, the participation of target groups, and resources.

## **2.2 Green Human Resource Management**

Green Human Resources Green Human Resource Management is an eco-friendly initiative towards more effective jobs, lower pay, and greater levels of employee engagement [12]. GHRM plays an essential role in the organization to support playing vital position in the organization to support the resolution of problems related to the environment by mastering management perspectives, HR policies, and applications, training people, and practicing provisions related to social protection [13].

Based on the statement [6] that GHRM increases productivity positively and significantly, the authors propose the first hypothesis:

H1: Green human resource management affects work productivity.

## **2.3 Environmental Performance**

Work environment Organizational environment refers to the organization's functions in a way that positively affects the environment. The environment has two main objectives: controlling the pollution level in the background and increasing the quality of the domain from accepted standards [13]. Increased concern for environmental safety forces organizations to get ecological management practices [14].

H2: Will environmental performance moderate between GHRM and work productivity?

# **3 Research Method**

In this study, the authors used the associative method using a quantitative approach. This study tried to test 42 employees in the company's office. Determination of the sample in this study was carried out with the type of Non-Probability Sampling, and the sampling technique used was a saturated sample. The data was obtained through a questionnaire by Google form. The measurement of these variables was carried out using a Likert scale with 5 variants. This study uses the Partial Least Square (PLS) technique with the calculation process using the SmartPLS 3.0 application program using the evaluation of the outer model and inner model.

# **4 Results and Discussion**

## **4.1 Respondent Profile**

We use the respondent profile to identify characteristics obtained from personal data on the first page of the questionnaire, such as gender, age, and division.

**Table 1.** Characteristics of respondents based on gender

Gender	Number of Respondents	Percentage
Man	17	40%
Woman	25	60%

Source: primary data 2022

#### 4.1.1 Characteristics of Respondents Based on Gender

From the Table 1 results, we can conclude that women prioritize more than men. It can be proven that there are 25 respondents, or 60% of women, and 17 respondents, or 40% of men.

#### 4.1.2 Characteristics of Respondents Based on Age

From these results, we can conclude that respondents aged 28 years and over dominated as much as 6 or 14%. Meanwhile, those aged 17 years were 1 or 2%, aged 19 1 year or 2%, 20 years 1 or 2%, aged 21 years were 3 or 8%, 22 years old 1 or 1%, 24 years 1 or 2%, 25 years 2 or 5%, 26 years 3 or 8%, 27 years old 4 or 10%, 29 years old 4 or 10%, age 30 is 3 or 8%, age 31 is 1 or 2%, age 32 is 1 or equal to 2%, age 33 is 1 or 2%, age 34 is 1 or 2%, age 36 is 2 or 5%, age 37 is 3 or 8%, 38 years is 1 or 2%, 45 years is 1 or 2%, 52 years is 1 or 1% (Table. 2).

#### 4.1.3 Characteristics of Respondents Based on Distribution

From these results, we can conclude that the division of respondents in the company that dominates more is Sales Support and IT Support, which is 19 or 45%, accounting is 9 or 21%, the warehouse is 2 or 5%, HRD is 2 or 5%, tax of 1 or 2%, production of 9 or 21% (Fig. 1).

**Table 2.** Characteristics Based on Distribution

Distribution	Number of Respondents	Percentage
Accounting	9	21
Warehouse	2	5
HRD	2	5
Sales & IT Support	19	46
Tax	1	29
Production	9	21

Source: primary data 2022



Fig. 1. Outer Loading

## 4.2 Analysis Results

### 4.2.1 Convergent Validity

Convergent validity aims to determine the validity of each relationship between indicators and their constructs or latent variables. The reflective measure is said to be high if it correlates more than 0.70 with the construct you want to measure. The loading factor values are explained in Table 4.

Based on the extreme loading values, Table 3 shows that all loading factor values have values above 0.7. It shows that the indicator variables are collectively valid and meet the convergent validity criteria.

### 4.2.2 Discriminant Validity

The analysis results in Table 4 show that the 3 variables in this study are Green Human Resource Management, Work Productivity, and Environmental Performance on each question item that requires each variable to have a loading factor value > 0.7. So, each question representing the variable is valid.

To evaluate the descriptive validity can be seen with the AVE (Average Variance Extracted) method for each construct or latent variable. The model has better discriminant validity when the square root of AVE (Average Variance Extracted) for each construct is greater than the correlation between the two constructs in the model.

Based on Table 5, all variable indicators are valid for discriminant validity.

### 4.2.3 Reliability Test

Reliability The reliability test’s measurement will reflect how accurately the coherence of respondents’ answers with the variables used to determine whether respondents consistently answer research questions using Cronchbach Alpha and composite reliability.

Based on the test results in Table 6, the composite reliability value generated for each variable is a combined reliability value, and the Cronchbach alpha > 0.8 for each variable indicates that the three variables are reliable.

**Table 3.** Loading Factor Values

Variable	Indicator	Outer Loading
GHRM (X)	X1	0,780
	X2	0,794
	X3	0,814
	X4	0,886
	X5	0,864
	X6	0,934
	X7	0,885
	X8	0,910
	X9	0,896
	X10	0,904
	X11	0,799
	X12	9,841
	X13	0,828
(Z)	Z1	0,756
	Z2	0.869
	Z3	0.838
	Z4	0.838
	Z5	0.786
Kerja (Y)	Y1	0.743
	Y2	0.845
	Y3	0.792
	Y4	0.855
	Y5	0.917
	Y6	0.824

Source: primary data 2022

#### 4.2.4 Multicollinearity Test

A multicollinearity test is needed to determine whether there are independent variables that have similarities between independent variables in a regression model.

Based on the test results in Table 7, the Collinearity Statistics (VIFs) results  $< 10$ . It can be declared free from multicollinearity.

**Table 4.** Cross Loading

	GHRM	Work Productivity	Env Perfm	Moderating Effect
GHRM1	0.780			<b>1.334</b>
GHRM2	0.794			
GHRM3	0.814			
GHRM4	0.886			
GHRM5	0.864			
GHRM6	0.934			
GHRM7	0.885			
GHRM8	0.910			
GHRM9	0.896			
GHRM10	0.904			
GHRM11	0.799			
GHRM12	9.841			
GHRM13	0.828			
EP1			0.756	
EP2			0.869	
EP3			0.838	
EP4			0.838	
EP5			0.786	
WP1		0.743		
WP2		0.845		
WP3		0.792		
WP4		0.855		
WP5		0.824		
WP6		0.917		

Source: primary data 2022

**4.2.5 Inner Model Evaluation**

The specification of the relationship between latent variables (structural model) can also be called an inner relation, which shows the relationship between latent variables based on the substantive theory of the research.

Based on the results of Table 8 shows that the coefficient of determination (R2) on employee work productivity is 0.457 or 45.7%. It means that the effect of green human resource management on employee work productivity is 45.7%. The remaining 54.3% is influenced by factors not examined (Fig. 2).

**Table 5.** Analysis AVE

Variable	AVE
Environmental Performance	0.670
GHRM	0.736
Work Productivity	0.691

*Source: primary data 2022*

**Table 6.** Cronbach Alpha and Composite Reliability

Variable	Cronbach Alpha	Composite Reliability
Work Environment (Z)	0.877	0.902
GHRM (X)	0.970	0.975
Work (Y)	0.913	0.909

*Source: primary data 2022*

**Table 7.** Multicollinearity Test

Variable	Work Productivity
Environmental Performance (Z)	
GHRM (X)	1,521
Moderating Effect 1	1,039
Work Productivity (Y)	

*Source: primary data 2022*

**Table 8.** R Square Test

Variable	R2 Square
Work Productivity (Y)	0.457

*Source: primary data 2022*

#### 4.2.6 Hypothesis Test

From the data collected, the results can be used to answer the hypothesis in this study by looking at the results of t Statistics and P Values. The results of processing the direct effect hypothesis can be seen in the Coefficient Path Table 9 in Bootstrapping.

The result of the first hypothesis, H1, is that the green human resource management variable has a positive and significant effect on work productivity. It is in line with





Fig. 2. Bootstrapping

Table 9. Path Coefficients

Variable	Original Sample	P Values	T Statistic	Description
EP (Z) -> WP (Y)	0,332	0,048	1,984	Positive, Significant
GHRM (X) -> WP (Y)	0,430	0,012	2,523	Positive, Significant
Moderation Effect -> WP(Y)	-0,022	0,838	0,205	No significant

Source: primary data 2022

research conducted by [6], which states that green human resource management has a positive and significant impact on work productivity in 69 companies in East Java, and research results [16] introduce the principles of green HRM, one of which is to increase sustainable productivity.

Research [8] also said that organizations should develop environmentally friendly capabilities, motivate employees through environmentally friendly rewards and provide opportunities for employees to improve performance which has an impact on increasing productivity.

The result of the second hypothesis, H2, is that environmental performance has no potential and does not mediate the relationship between GHRM and work productivity.

## 5 Conclusion

The results of the research above indicate that green human resource management has a positive and significant effect on work productivity. Still, environmental performance needs to moderate the impact between green human resource management and work productivity.

This research has limitations. Namely, only done on one company. Hopefully, in the future, it can be done in many companies so that we can maximize this research.

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