

HOW DO EMPLOYEE GREEN BEHAVIOR INCREASING EMPLOYEE SUSTAINABLE PERFORMANCE?

LENNY CHRISTINA NAWANGSARI

Faculty Economic and Business, Universitas Mercu Buana, Indonesia.
Corresponding Author Email: lenny.christina@mercubuana.ac.id

INDRA SISWANTI

Faculty Economic and Business, Universitas Mercu Buana, Indonesia.

YUSLIZA MOHD YUSOFF

Faculty Management, University Malaysia Terengganu, Malaysia

Abstract

Employee Green Behavior is very important in creating sustainable employee performance. Organizational employees are expected to be more responsible in increasing their role and environmental awareness. Employee are expected to contribute significantly to creating business sustainability through green-conscious behavior. This study aims to analyze the influence of Green Human Resources, Green Knowledge Management and Green organizational Culture on Employee Green Behavior and their implications for Employee Sustainable Performance in Indonesia & Malaysia. This research done with Quantitative Method using Structural Equation Modelling (SEM) analysis with software Partial Least Square (PLS). The population in this study was a sample of 210 people and the sampling technique is random sampling. The results of this study proved that 1) Green Human Resources Management, Green Knowledge Management & Green organizational Culture have effect on Employee Green Behavior; 2) Green Human Resources Management have effect on Green Knowledge Management & Green organizational Culture; 3) Green Human Resources Management, Green Knowledge Management & Green organizational Culture have effect on Employee Green Behavior; 4) Green Human Resources Management has effect on Employee Green Behavior through Green Knowledge Management & Green organizational Culture and 5) Employee Green Behavior has effect on Employee Sustainable Performance.

Keywords: Green Human Resources, Green Knowledge Management, Green Organizational Culture, Employee Green Behavior, Employee Sustainable Performance

1. INTRODUCTION

Environmental issues are important because the quality of the environment will directly affect the quality of human life. In addition, the quality of the environment also affects the quality of human life in the future. Globally, environmental researchers and policy makers have agreed on the fact that reasons for environmental damage such as resource deficits, increased pollution and loss of biodiversity are deeply rooted in human behaviour (Anwar et al., 2020).

Green HRM practices are also considered as a useful strategy for organizations to improve their human resources which can ultimately lead to better environmental performance (Alvarez et al., 2019; Roscoe et al., 2019). Green HRM is needed in the management of human resources, including in tertiary institutions, to create, improve, and maintain the environmental aspects of each employee in the organization so that employees can make the maximum contribution of each individual.

Based on the above phenomenon, it can be seen that the application of behavior that pays attention to environmental sustainability (employee green behavior) is very important. The practice of going green is one of the efforts launched by the international community in the context of overcoming environmental problems. Under these conditions, all organizations, both public and private, are expected to be able to run the program well, in order to raise awareness of the importance of preserving the surrounding environment. Employee green behavior is important for all organizations, regardless of sector, including the higher education sector (Rayner & Morgan, 2017).

The role of Green HRM learning on employee behavior is still in its infancy (Yong, Yusliza and Fawehinmi, 2019) and needs to be studied in different organizational contexts, such as: higher education institutions Tairu (2018) has highlighted that greening campuses requires greening HRM practices in universities. According to Jiang, Zhao, & Ni (2017) Employee Sustainable Performance refers to the contribution of employees to their own sustainable development and projects and sustainable organizational development, and is divided into continuous performance tasks and relationships with sustainable performance.

Based on previous research, several factors can affect sustainable employee performance include Cognitive liveliness, Green transformational leadership, Motivation, Green Human Resource Management, Employee Green Behavior (EGB), Organizational Citizenship Behavior for Environment (OCBE), and Supervisory Behavior.

The table below describes the Pre-survey of the implementation of Employee Sustainable Performance conducted on 30 employees:

Table 1: Pre-survey results of Employee Sustainable Performance

No	Question	Yes	No
1	I take initiatives to maintain performance	12 (40%)	18 (60%)
2	I communicate effectively with colleagues and superiors	16 (53%)	14 (47%)
3	I always update my knowledge and skills to support my work	15 (50%)	15 (50%)

Based on the Pre-research results, it is proven that Employee Sustainable Performance has not been optimally implemented.

Researchers also conducted a pre-survey regarding the implementation of EGB, the results of which are as follows:

Table 2: Pre-survey results of Employee Green Behaviour

No	Question	Yes	No
1	I suggest other employees to behave that is beneficial to the environment	12 (40%)	18 (60%)
2	I prioritize to behave that is beneficial to the environment	16 (53%)	14 (47%)

Based on the Pre-research results, it is proven that Employee Green Behaviour has not been optimally implemented. Based on the interview results, there are several variables that are suspected of influencing Employee Green Behavior, namely Green Human Resources Management, Green Organization Culture and Green Knowledge Management. Researcher conducted a pre-survey of several variables related to the Employee Green Behaviour variable.

Table 3: Pre-survey results of variables that affect Employee Green Behaviour

Variable	Yes	No
Green Human Resources Management		
Employee assessment emphasizes environmental skills and competencies	11 (37%)	19 (63%)
Employees are given the opportunity to propose improvements to environmental problems	10 (33%)	20 (67%)
Green Organizational Culture		
The company already has a policy related to environmental management	10 (33%)	20 (67%)
All employees have complied with policies related to environmental companies	13 (43%)	17 (57%)
Green Knowledge Management		
the company has made efforts to manage employee knowledge	15 (50%)	15 (50%)
All employees have played an active role in empowering knowledge and skills within the company's internal environment	12 (40%)	18 (60%)

From the pre-survey conducted on 30 people, it was found that 3 variables were still not optimally implemented. Several studies related to the influence of Green Human Resources Management, Green Knowledge Management, Green organizational Culture on Employee Green Behavior are still inconsistent. Mayangsari and Nawangsari's research (2020) states that Green human resource management has an influence on Employee Green Behavior. However, research by Muafi et.al (2022) states that there is no alignment between GHRM and Employee Green Behavior. Research conducted by Safari (2018) states that Green Knowledge management has an effect on Employee green behavior, but research by Rubel et.al (2021) states that only the knowledge sharing dimension affects Employee Green Behavior. Research conducted by Abdullah (2021) stated that green organizational culture was confirmed to have a significant positive relationship with employees' green behavior, while research conducted by Paul et.al (2021) stated that only the dimension of peer involvement had an effect on Employee Green Behavior.

Based on the above phenomenon, the researcher is interested in researching and analyzing the influence of Green Human Resources Management, Green Knowledge Management & Green Organization Culture on Employee Green Behavior and Their implications on Employee Sustainable Performance in Indonesia and Malaysia.

2. THEORETICAL REVIEW

Green Human Resource Management

Green Human Resources Management is a company orientation that focuses on protection and is environmentally friendly in managing the company through human resource management practices. The application of Green HRM by integrating the analysis of organizational and individual variables which are important factors in pro-environmental behavior (Yong Joong Kim, et al., 2019). Green HRM is defined as the use of human resource practices to promote the sustainable use of resources within the organization and more generally to promote environmental sustainability. The concept of Green HRM can also be understood as the use of human resource management policies and practices in the sustainable use of resources in business organizations and other broader interests in order to preserve the environment. From

this concept, the discussion of Green HRM at least covers aspects of human resources and the environment. This is in line with the notion of Green HRM as the human resource aspect of environmental management that promotes pro-environmental behavior of workers in the workplace (Renwick et al., 2013). Basically Green HRM reflects the human resource aspect of environmental management which focuses on the role of human resources in pollution prevention through the company's operational processes. Therefore, with Green HRM, the managed human resources have the ability to measure and influence the behavior, attitudes, knowledge, and motivation of workers related to the environment. Organizations can utilize human resources to effectively deliver and implement environmentally friendly policies. More broadly, Green HRM can be defined as the environmental orientation of all human resource management functions or organizational practices at all levels. Green HRM is concerned with rethinking the basic concepts of human resources, namely goals, functions, processes, activities, and strategies in an environmentally friendly manner and accommodates the need for ecological sustainability. Green HRM refers to policies, practices and systems that make organizational workers environmentally friendly for the benefit of individuals, society, the natural environment, and the business environment (Opatha & Arulrajah, 2014). The dimensions of Green HRM in practice can be more clearly understood when referring to the Ability-Motivation-Opportunity (AMO) theory which consists of: Green Competence Building, Green Performance Management & Green Employee Involvement.

Green Knowledge Management

Green Knowledge Management is the process of managing knowledge resources through a process of generalizing ideas from each individual, then developing all initiatives that arise from stakeholders, followed by reintegrating the sustainability strategy with existing strategies. Where this process is very relevant to supporting environmental sustainability (Gauthier & Zhang: 2020). Furthermore, according to Yu et.al (2022) Green Knowledge Management is a systematic process for acquiring, sharing, and using knowledge effectively which aims to integrate environmental aspects into all dimensions of knowledge management. Green Knowledge Management Dimension Yu et.al (2022) which states that the dimensions of Green Knowledge Management are: 1) Green Knowledge Acquisition; 2) Green Knowledge Application; 3) Green Knowledge Sharing; 4) Green Knowledge Storage; 5) Green Knowledge Creation.

Green Organization culture

Tahir et.al (2019) Green Organizational Culture is a culture of sustainability where organizational members share assumptions and beliefs about the importance of balancing environmental responsibility, economic efficiency and social justice. The dimensions of Green Organization Culture according to Muisyo et.al (2020) are: 1) Leadership Emphasis; 2) Message Credibility; 3) Colleague participation; 4) Employee Empowerment.

Employee Green Behavior

Employee Green Behavior according to Ruiz-Perez, Lleo & Ormazabal (2021) states that: "Environmental Sustainable Behaviors of employees can be summarized in three points:

efficiency of different resources, environmental consideration of transport and suggestions for reducing the environmental impact of processes, products and services". It can be said that Employee Green Behavior is a Sustainable Behavior that can be seen from three behaviors, namely, efficiency of various resources, care for the impact of transportation on the environment, and steps to minimize the impact of processes, goods and services on the environment.

Meanwhile, according to Farooq et.al (2021) Employee Green Behavior is employee behavior that shows sustainability behavior in their daily lives where employees complete tasks demanded by the organization with an orientation to sustainability aspects. In addition, according to Xing and Starik (2017) Employee Green Behavior is employee behavior that is driven by ethical and pro-environmental behavior either obligatory due to regulations or voluntarily, where this has become the norm in a company. Tapia-Fonllem (2013), states that Dimensions of Employee Green Behavior what is included in sustainable behavior are: 1) Pro-ecological; 2) Frugal Behavior; 3) Altruistic Behavior & 4) Equitable Action Behavior.

Employee Sustainable Performance

According to Min et al., (2020), the conception of sustainability emerges from "ecology," which denotes organizational and procedural capabilities to cultivate, raise, care for, and sustain. Continuous performance refers to the employee's exclusive pursuit of continuous personal and organizational growth. continuous individual task performance and relational development are considered as significant measures of Employee Sustainable Performance. According to Jiang, Zhao, & Ni (2017) Employee Sustainable Performance refers to the contribution of employees to their own sustainable development and projects and sustainable organizational development, and is divided into continuous performance tasks and relationships with sustainable performance. Task Employee Sustainable Performance refers to the extent to which employees achieve their own sustainable development by fulfilling their tasks. Relational sustainable development refers to the extent to which employees contribute to the ongoing development of project organizations and promote organizational culture. Dimensions and Indicators of Employee Sustainable Performance. According to Min et al., (2020), measurement of Employee Sustainable Performance can be done through several dimensions as Contextual Performance & Adaptive Performance.

Hypothesis Development

1) The relationship between Green Human Resources Management and Green Knowledge Management

Research conducted by Shumaila et.al (2022) states that the analytical findings reveal that green HRM practices and corporate environmental strategy are positively related to a green psychological climate which in turn produces pro-environmental behavior among employees. The company's environmental strategy to motivate employees to create an environmentally friendly workplace that leads to environmental optimization. Environmental knowledge moderates between pro-environmental behavior and environmental performance. Based on the description above, the researcher proposes the following hypothesis:

H1: Green Human Resources Management has a positive and significant effect on Green Knowledge Management

2) The relationship between Green Knowledge Management and Employee Green Behavior

The results of research conducted by Wenyao et.al (2021) state that Environmental Knowledge Application and Environmental Knowledge Sharing have a positive effect on EGB. Another study conducted by Sarfraz (2020) states that environmental knowledge plays a mediating role to strengthen pro-environmental behavior of employees. The results of research conducted by Rubel, et.al (2021) state that one of the dimensions of Knowledge Management, namely Knowledge Sharing, has a significant effect on Green Behavior. According to Yu et al (2022) Green Knowledge Creation which is one dimension of Green Knowledge Management enables a dynamic organization to encourage their employees to share their knowledge to promote environmental sustainability, knowledge creation and ensure the availability of adequate resources. From this statement, it certainly indicates that there is a link between Green Knowledge Management, namely through the creation of knowledge that will foster interest and the role of employees to develop more environmentally conscious behavior and social solidarity. Based on the description above, the researcher proposes the following hypothesis:

H2: Green Knowledge Management has a positive and significant effect on Employee Green Behavior

3) The relationship between Green Human Resources Management and Employee Green Behavior

Green human resource management (GHRM) in organizational environmental management has gradually become a major issue among academics, and its impact on employee green behavior is receiving increasing attention. Environmental awareness refers to the extent to which individuals are concerned about and informed about environmental problems, encourage efforts to solve problems, and/or suggest a willingness to contribute individually to solutions. Environmental awareness includes several components, one of which is environmental attitude, which refers to people's value assessment of environmental protection. Some previous research related to the relationship between Green Human Resources Management and Employee Green Behavior is the research of Zhang, et.al (2019) which states that GHRM practices have influence towards both in-role and extra-role greens workplace behavior. Research conducted by Mohammed (2020) states that The results show that green human resource management (GHRM) is significant for green behavior in employee roles. Another study by Sarfraz et.al (2020) proved that Green HRM practices positively influence employees' pro-environmental behaviour. Based on the description above, the researcher proposes the following hypothesis:

H3: Green Human Resources Management has a positive and significant effect on Employee Green Behavior

4) The relationship between Green Human Resources Management and Green Organization Culture

Research by Paul et.al (2021) proves that GHRM practices include developing green capabilities, green motivation and green opportunities to support the development of a Green Culture. Based on the description above, the researcher proposes the following hypothesis:

H4: Green Human Resources Management has a positive and significant effect on Green organizational Culture

5) The relationship between Green Organization Culture and Employee Green Behavior

According to Hui, Liu, and Lin (2022) Green Culture has a significant effect on Green Behavior. Research conducted by Abdullah et.al (2021) proved that green organizational culture was confirmed to have a significant positive relationship with employees' green behavior. Another study conducted by Sekarini & Intan (2021) stated that the results showed that ecological leadership and organizational culture had a positive and significant effect on employee environmental empowerment. Based on the description above, the researcher proposes the following hypothesis:

H5: Green organizational Culture has a positive and significant effect on Employee Green Behavior

6) The relationship between Green Organization Culture and Employee Green Behavior through Green Knowledge Management

Research conducted by Olawole et.al (2019) states that green Human Resources Management influences Employee Green Behavior through full mediation of environmental knowledge. Based on the description above, the researcher proposes the following hypothesis:

H6: Green Human Resources Management has a positive and significant effect on Employee Green Behavior through Green Knowledge Management

7) The relationship between Green Human Resources and Employee Green Behavior through Green Organization Culture

The results of research conducted by Abdullah Kaid et.al (2021) state that green organizational mediates the relationship between environmental concerns, green human resource management, green leadership behavior and green employee behavior. Based on the description above, the researcher proposes the following hypothesis:

H7: Green Human Resources Management has a positive and significant effect on Employee Green Behavior through Green organizational Culture

8) The relationship between Employee Green Behavior and Employee Sustainable Performance

Companies and individuals are aware of the gravity of the environmental problem and are calling for establishing a sustainable way of operating. Employee Green Behavior, a type of pro-environmental action in the workplace, is very important for organizations to achieve

environmental preservation goals. To promote employee green behavior, it is important to understand what factors influence such pro-environmental actions and how these effects can be influenced. For example, several scholars have explored the antecedents of employee green behavior at work, in terms of corporate strategy (Norton et al., 2017). Some of the previous research that recognizes this is research conducted by Hui Li, et.al (2022) which states that The employees' green initiatives ensure the organization's sustainable performance. Another study was conducted by Neruja (2022) which proved that there is a significant positive association between green employee behavior and sustainable organizational performance. Furthermore, Yong Joong et al (2019) stated that The findings show that employee green behavior has an effect on employee environmental performance. Based on the description above, the researcher proposes the following hypothesis:

H8: Employee Green Behavior has a positive and significant effect on Employee Sustainable Performance

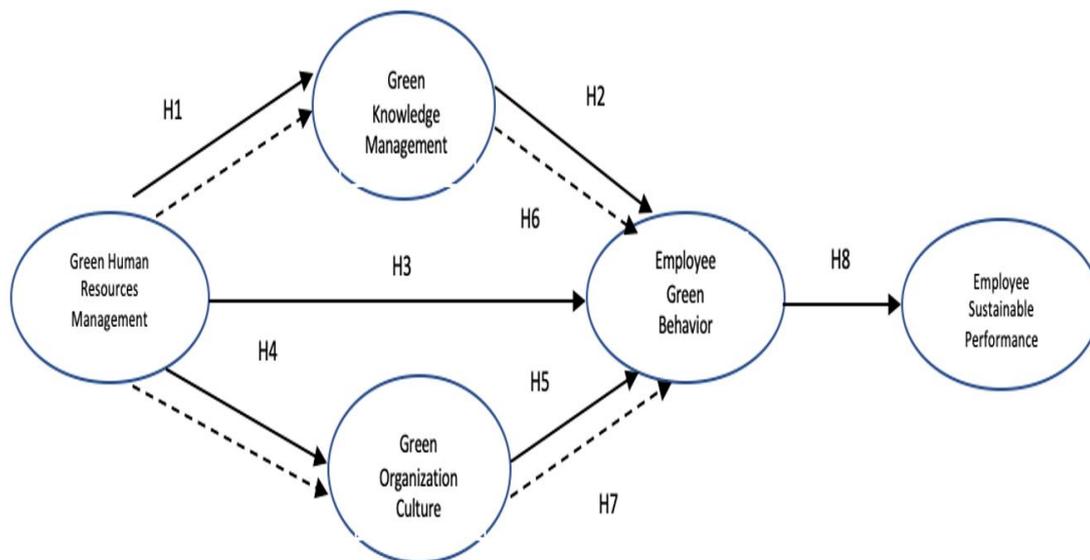


Figure 1: Framework

3. RESULTS AND DISCUSSION

Results

Description of Respondents Characteristics

Characteristics of respondents' descriptions in this study are based on gender, age, position and length of work. Description of the characteristics of the respondents as follows:

Table 4: Characteristics of Respondents

Category	Description	Number of People	Percentage
Gender	Man	93	44%
	Woman	117	56%
Age	<31 year	23	11%
	31-30 year	38	18%
	31-40 year	48	23%
	41-50 year	63	30%
	>50 year	38	18%
Length of work	< 1 year	32	15 %
	1-5 year	51	24 %
	> 5 year	127	61%

Source: Primary Data Processed (2023)

This study uses a structural equation model with a Partial Least Square (PLS) approach. PLS testing consists of testing the outer model and inner model. The evaluation of the measurement model (outer model) is carried out to determine the validity and reliability of the link between the indicator and its latent variables. The model has been measured based on PLS-SEM analysis with the help of Smart PLS 3.0. To assess the measurement model, factor loading, average extract variance (AVE), HTMT, composite reliability, & Cronbach's alpha.

Table 5: Model Convergent Validity Test Results

Variable	Indicator	Outer Loadings	
GHRM (X)	X1	0,800	Valid
	X2	0,876	Valid
	X3	0,943	Valid
	X4	0,887	Valid
	X5	0,805	Valid
	X6	0,761	Valid
	X7	0,800	Valid
	X8	0,798	Valid
Green Knowledge Management (Z1)	Z1.1	0,881	Valid
	Z1.10	0,863	Valid
	Z1.2	0,810	Valid
	Z1.3	0,812	Valid
	Z1.4	0,831	Valid
	Z1.5	0,737	Valid
	Z1.6	0,783	Valid
	Z1.7	0,795	Valid
Green Organization Culture (Z2)	Z1.8	0,759	Valid
	Z1.9	0,769	Valid
	Z2.1	0,806	Valid
	Z2.2	0,827	Valid
	Z2.3	0,805	Valid
	Z2.4	0,758	Valid
	Z2.5	0,850	Valid
	Z2.6	0,837	Valid

Variable	Indicator	Outer Loadings	
	Z2.7	0,891	Valid
	Z2.8	0,898	Valid
EGB (Y1)	Y1.1	0,916	Valid
	Y1.2	0,867	Valid
	Y1.3	0,855	Valid
	Y1.4	0,804	Valid
	Y1.5	0,836	Valid
	Y1.6	0,786	Valid
	Y1.7	0,714	Valid
	Y1.8	0,840	Valid
Employee Sustainable Performance (Y2)	Y2.1	0,804	Valid
	Y2.2	0,843	Valid
	Y2.3	0,902	Valid
	Y2.4	0,944	Valid
	Y2.5	0,827	Valid
	Y2.6	0,792	Valid
	Y2.7	0,767	Valid

Source: data process 2023

Another method is to compare the value of the square root of average variance extracted (AVE) for each construct, with the correlations between other constructs in the model. In this regard, it is recommended that the measurement value should be greater than 0.50. Furthermore, the results of the Discriminant validity test can be seen as the visualization of Table 6 as follows:

Table 6: Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)
GHRM (X)	0,699
Green Knowledge Management (Z1)	0,648
Green Organization Culture (Z2)	0,697
EGB (Y1)	0,687
Employee Sustainable Performance (Y2)	0,709

Source: data process 2023

Table above shows the results of the Average variance extracted (AVE) values are more than 0.50. Based on Table 6 above, it can be explained that the results of the Cronbach's Alpha & Composite reliability test show a satisfactory value, where all latent variables are reliable because all variable values have a composite reliability value of 0.70. In other words, the questionnaire used as an instrument in this study is reliable or consistent.

Discriminant validity – HTMT

The HTMT is the mean of all indicator correlations across constructs measuring different constructs (that is, heterotrait-heteromethod correlations) relative to the (geometric) mean of the mean correlation of indicators measuring the same construct. The HTMT value is valid if it is less than 0.90

Table 7: Heterotrait-Monotrait Ratio (HTMT) Test Results

	EGB (Y1)	Employee Sustainable Performance (Y2)	GHRM (X)	Green Knowledge Management (Z1)	Green Organization Culture (Z2)
EGB (Y1)					
Employee Sustainable Performance (Y2)	0,479				
GHRM (X)	0,610	0,560			
Green Knowledge Management (Z1)	0,646	0,210	0,269		
Green Organization Culture (Z2)	0,768	0,395	0,522	0,762	

Source: data process 2023

In table 7. all HTMT values are less than 0.90, so all variables are declared valid.

Table 8: Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability
GHRM (X)	0,938	0,949
Green Knowledge Management (Z1)	0,940	0,948
Green Organization Culture (Z2)	0,940	0,948
EGB (Y1)	0,934	0,946
Employee Sustainable Performance (Y2)	0,932	0,944

Source: data process 2023

Based on Table 8 above, it can be explained that the results of the Cronbach's Alpha & Composite reliability test show a satisfactory value, where all latent variables are reliable because all variable values have a composite reliability value more than 0.70. Its mean instrument in this study is reliable or consistent.

The next stage is to calculate the inner model. Before analyzing, it is necessary to test or evaluate the empirical research model. The results of testing the empirical model of this study can be seen in the visualization of Figure 2 as follows:

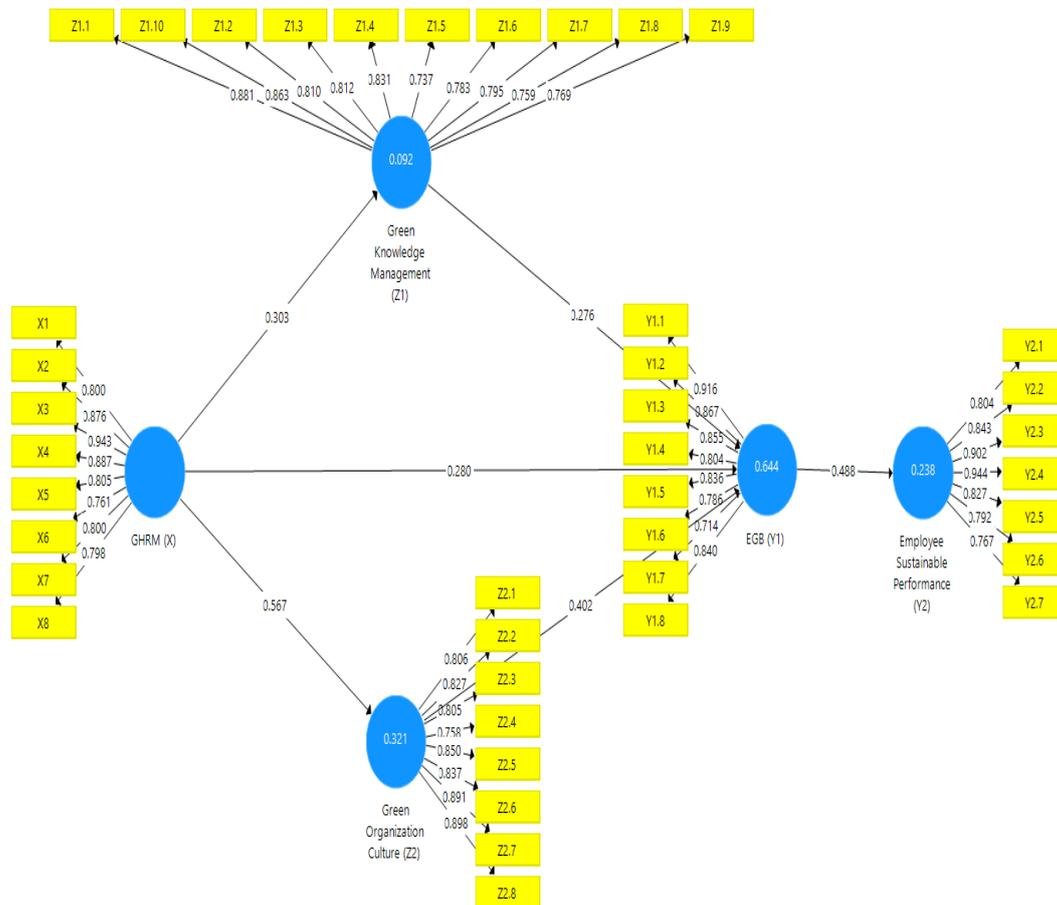


Figure 2: Path Analysis

The evaluation of the inner model is done by looking at the Coefficient of Determination. The Coefficient of Determination aims to measure how far the model's ability to explain the variance of the dependent variable is. The value of the coefficient of determination is between 0 and 1. The value of the coefficient of determination (R^2) is close to the value of 1.

Table 9: R Square (R^2) Value of Research Model

	R Square	R Square Adjusted
Green Knowledge Management (Z1)	0,092	0,087
Green Organization Culture (Z2)	0,321	0,318
EGB (Y1)	0,238	0,235
Employee Sustainable Performance (Y2)	0,644	0,639

Source: data process 2023

The results of testing the research hypothesis can be seen in table 10.

Table 10: Direct and Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Direct Effect					
GHRM (X) -> Green Knowledge Management (Z1)	0,303	0,314	0,067	4,517	0,000
Green Knowledge Management (Z1) -> EGB (Y1)	0,276	0,275	0,041	6,750	0,000
GHRM (X) -> EGB (Y1)	0,592	0,595	0,047	12,692	0,000
GHRM (X) -> Green Organization Culture (Z2)	0,567	0,574	0,049	11,492	0,000
Green Organization Culture (Z2) -> EGB (Y1)	0,402	0,404	0,053	7,560	0,000
EGB (Y1) -> Employee Sustainable Performance (Y2)	0,488	0,492	0,056	8,676	0,000
Indirect Effect					
GHRM (X) -> Green Knowledge Management (Z1) -> EGB (Y1)	0,084	0,085	0,019	4,465	0,000
GHRM (X) -> Green Organization Culture (Z2) -> EGB (Y1)	0,228	0,232	0,038	5,991	0,000

Source: data process 2023

The table above shows all hypotheses in this study are accepted.

Discussion

1) Green Human Resources Management has effect on Green Knowledge Management

The research results prove that the better the implementation of Green Human Resources Management will affect Green Knowledge Management. The most dominant dimension in Green Human Resources Management is Green Performance Management. Some of the companies studied stated that Employee environmental activities are evaluated during the performance appraisal process. It is hoped that this will increase employee interest in carrying out green activities so that it will affect green knowledge management. Previous research that supports the results of this study is the research of Shumaila et.al (2022) which states that GHRM practices can produce Green Knowledge Management that GHRM practices can produce Green Knowledge Management.

2) Green Knowledge Management has effect on Employee Green Behavior

The better the implementation of Green Knowledge Management will affect the improvement of Employee Green Behavior. The results of previous research were conducted by Wenyao et.al (2021); Sarfraz (2020); Rubel, et.al (2021); Yu et al (2022) stated that Green Knowledge Management influences Employee Green Behavior. The dominant dimension of Green Knowledge Management is Green Knowledge Acquisition. Organizations take advantage of the latest technology to reduce negative impacts on the environment and society.

3) Green Human Resources Management has effect on Employee Green Behavior

The results of the study show that the better Green Human Resources Management will affect the increase in Employee Green Behavior. The most dominant dimension of Employee Green Behavior is Pro-ecological Behavior. Employees have awareness to keep the environment clean. With an HR management system that focuses on Green, it is expected to develop pro-ecological behavior. This study supports the results of research conducted by Zhang, et.al (2019); Mohammed (2020); Sarfraz et.al (2020) stated GHRM practices have influence towards both in-role and extra-role greens workplace behavior.

4) Green Human Resources Management has effect on Green organizational Culture.

The research results prove that the better the implementation of Green Human Resources Management will affect the Green Organizational Culture. The most dominant dimension in Green Organizational Culture is Employee Empowerment. In some companies employees are facilitated to solve environmental problems through teamwork. So that a green conscious culture will get stronger. Previous research that supports the results of this study is the research of Paul et.al (2021) proved GHRM practices that include developing green capabilities, green motivation and green opportunities to support the development of a Green Culture.

5) Green organizational Culture has effect on Employee Green Behavior

The results of the study prove that the better the implementation of Green Organizational Culture will affect Employee Green Behavior. The lowest score on the Green Organizational Culture variable is Message Credibility. Management needs to set performance targets for each function regarding environmental impacts previous research that supports the results of this study is the research of Hui, Liu, and Lin (2022); Abdullah et.al (2021); Sekarini & Intan (2021). The results of this study prove that Green organizational culture has a positive and significant effect on employee environmental empowerment and pro-environmental behavior.

6) Green Human Resources Management has effect on Employee Green Behavior through Green Knowledge Management

The better the implementation of Green Human Resources Management will have an impact on improving Green Knowledge Management and will ultimately have an impact on increasing Employee Green Behavior. The lowest value on the Green Human Resources Management variable is Green Employee Involvement. Company management is expected to provide more opportunities for employees to make decisions regarding environmental issues. Previous research that supports the results of this study is the research of Research of Olawole et.al (2019) prove that green HRM influences EGB through full mediation environmental knowledge.

7) Green Human Resources Management has effect on Employee Green Behavior through Green organizational Culture

The research results prove that the better the implementation of Green Human Resources Management will affect the Green Organizational Culture have an impact on increasing Employee Green Behavior. The lowest value on the Employee Green Behavior variable is Equitable Action Behavior. Employees are expected to play an active role in waste recycling activities. With the existence of an

environmental care program from management and a green conscious culture which is usually reflected in the company's culture, it will motivate employees to care more about environmental activities. Previous research that supports the results of this study is the research of Abdullah et.al (2021). There is an influence of green human resource management on green organizational culture. Furthermore, green organizational culture has a significant positive relationship with green employee behavior. Green organizational culture also mediates the relationship between green human resource management and green employee behavior.

8) Employee Green Behavior has effect on Employee Sustainable Performance

The better the implementation of Employee Green Behavior will affect the improvement of Employee Sustainability Performance. The results of previous studies are (Norton et al., 2017); Hui Li, et al (2022); Neruja (2022) & Yong et al (2019). Previous research findings indicate that increasing green behavior will have an impact on environmental performance. The dominant dimension of Employee Sustainable Performance is Contextual Performance. By implementing good employee green behavior, it will have an impact on effective communication within the organization to improve employee sustainable performance.

4. CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on the research findings and the discussion, the researcher has answered all the research problems described previously in this study. From the analysis that has been carried out, it can conclude that:

- 1) Green Human Resources Management has effect on Green Knowledge Management
- 2) Green Knowledge Management has effect on Employee Green Behavior
- 3) Green Human Resources Management has effect on Employee Green Behavior
- 4) Green Human Resources Management has effect on Green organizational Culture
- 5) Green organizational Culture has effect on Employee Green Behavior
- 6) Green Human Resources Management has effect on Employee Green Behavior through Green Knowledge Management
- 7) Green Human Resources Management has effect on Employee Green Behavior through Green organizational Culture
- 8) Employee Green Behavior has effect on Employee Sustainable Performance

Recommendations

- 1) Green Human Resources Management: Companies are advised to evaluate employee environmental activities in the employee performance appraisal process.
- 2) Green Knowledge Management: Companies can use the latest technology and train employees to behave Green in order to reduce the negative impact on the environment.

- 3) Green Organizational Culture: Company can create program team building for employees to increase teamwork so that employees can be facilitated to solve environmental problems
- 4) Employee Green Behavior: Employees need to increase pro-ecological behavior through awareness activities to keep the environment clean. Activities that can be carried out include campaigns related to environmental cleanliness and clean environment competitions.
- 5) Employee Sustainable Performance: Employees need to improve employee behavior that supports the organization, social and environment through effective collaboration and communication so as to improve employee performance in a sustainable. In addition, it is expected that employees will be more adaptive to change, for example always updating ongoing work knowledge through training & knowledge sharing.

Further Research Suggestions

After conducting research with several limitations, the author has several suggestions for further research, including:

- 1) Analyze Employee Sustainable Performance more deeply and broadly, focusing on one type of model and with various modifications to the research model based on the existing literature or journals so that the results obtained are even better.
- 2) Researchers suggest that researchers conduct further research on factors outside the variables studied, such as Green Innovation & Green Intellectual Capital

References

- 1) Anwar, N., Nik Mahmood, N. H., Yusliza, M. Y., Ramayah, T., Noor Faezah, J., & Khalid, W. (2020). Green Human Resource Management for organisational citizenship behaviour towards the environment and environmental performance on a university campus. *Journal of Cleaner Production*, 256, 120401. <https://doi.org/10.1016/j.jclepro.2020.120401>
- 2) Alvarez-Torres, F. J., Lopez-Torres, G. C. and Schiuma, G. (2019). Linking entrepreneurial orientation to SMEs' performance: Implications for entrepreneurship universities. *Management Decision*. doi: 10.1108/MD-11-2018-1234.
- 3) Abdullah Kaid, Hamid Mahmood, Redhwan Mohammad. (2021). The joint impact of green human resource management, leadership and organizational culture on employees' green behaviour and organisational environmental performance
- 4) Denison, D.R. & Ko, Ia. (2016). Cultural Due Diligence in Mergers and Acquisitions. *Advances in Mergers and Acquisitions*, Vol. 15, 53-72. Bingley, UK: Emerald Group Publishing Limited
- 5) Elsayy. (2022). The Effect of Sustainable Human Resource Management on Achieving Sustainable Employee Performance: An Empirical Study. *International Business Research*
- 6) Farooq, K., Yusliza, M. Y., Wahyuningtyas, R., Haque, A. U., Muhammad, Z., & Saputra, J. (2021). Exploring Challenges and Solutions in Performing Employee Ecological Behaviour for A Sustainable Workplace. *Sustainability*, 13(17), 9665. DOI: <https://doi.org/10.3390/su13179665>
- 7) Gauthier, J., Zang, Z. (2020). Green Knowledge Management and Strategic Renewal: A Discursive Perspective on Corporate Sustainability. *International Journal of Productivity and Performance*

- Management, 69(8), 1797-1811. DOI: <https://doi.org/10.1108/IJPPM-10-2019-0489>.
- 8) Hui Li, Yiyun Li, Muddassar Sarfarz, Ilknur Ozturk. (2022). Enhancing firms' green innovation and sustainable performance through the mediating role of green product innovation and moderating role of employees' green behavior
 - 9) Mayangsari, R. E., Nawangsari, L. C., & Sutawidjaya, A. H. (2021). Employee Green Behavior on Generation X and Y Millennial. *International Review of Management and Marketing*, 11(4), 38. DOI: <https://EconPapers.repec.org/RePEc:eco:journ3:2021-04-5>
 - 10) Muafi et.al (2022). The influence of organizational environmental culture on employee performance mediated by green human resource management (GHRM) and job satisfaction. *Business Ecosystem & Strategy, IJBES Vol 4 No. 1*, page 2687-2293
 - 11) Muisyo, P. K., Qin, S., Ho, T. H., Julius, M. M., & Andriamandresy, T. B. (2021). Implications of GHRM on Organisational Citizenship Behaviour: The Mediating Role of Enablers of Green Culture. *International Journal of Manpower*. 43(3), 719-741. DOI: <https://doi.org/10.1108/IJM-05-2020-0245> Ruiz-Perez, Lleo & Ormazabal (2021)
 - 12) Min, J., Iqbal, S., Khan, Akhtar, S., Anwar, F., & Qalati, Sikandar Ali. (2020). Impact of supervisory behavior on sustainable employee performance: Mediation of conflict management strategies using PLS SEM. *PloS One*, 15(9), e0236650
 - 13) Mohammed Aboramadan. (2020). The effect of green HRM on employee green behaviors in higher education: the mediating mechanism of green work engagement
 - 14) Norton, T. A., Zacher, H., Parker, S. L., & Ashkanasy, N. M. (2017). Bridging the gap between green behavioral intentions and employee green behavior: The role of green psychological climate. *Journal of Organizational Behavior*, 38(7), 996–1015
 - 15) Neruja Sivalingam, A. Anton Arulrajah. (2022). The Impact of Organizational Environmental Support on Organizational Sustainable Performance: The Mediating Role of Employee Green Behaviour in selected Commercial banks in Batticaloa Region of Sri Lanka
 - 16) Olawole Fawehinmi, Mohd Yusoff Yusliza, Zaleha Mohamad, Juhari Noor Faedah and Zikri Muhammad. (2019). Assessing the green behaviour of academics : The role of green human resource management and environmental knowledge
 - 17) Olawole Fawehinmi, M. Y. Yusliza, Wan Zulkifli, Zaleha Mohamad, Muhammad Abi Sofian. (2020). Exploring the Interplay of Green Human Resource Management, Employee Green Behavior, and Personal Moral Norms
 - 18) Opatha, H. H. D. N. P., & Arulrajah, A. A. (2014). Green Human Resource Management: Simplified General Reflections. *International Business Research*, 7(8). <https://doi.org/10.5539/ibr.v7n8p101>
 - 19) Paul Kivinda Muisyo, Su Qin, Thu Hau Ho, Mercy Muthoni Julius, Tsirinirintantina Barisoava Andriamandresy. (2021). Implications of GHRM on organisational citizenship behaviour: the mediating role of enablers of green culture
 - 20) Roscoe et al. (2019). Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment Journal*, Volume 28, Issue 5 p. 737-749, <https://doi.org/10.1002/bse.2277>
 - 21) Rayner & Morgan. (2017). An empirical study of green workplace behaviours : ability, motivation and opportunity. *Asia Pacific Journal of Human Resource*, 56 (1), 56-78
 - 22) Renwick, D, Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14.

- 23) Rubel, M.R.B., Kee, D.M.H. & Rimi, N.N. (2021), The Influence of Green HRM Practices on Green Service Behaviors: The Mediating Effect of Green Knowledge Sharing, *Employee Relations*, 43(5), 996-1015. DOI: <https://doi.org/10.1108/ER-04-2020-0163>
- 24) Safari, A., Salehzadeh, R., Panahi, R., & Abolghasemian, S. (2018). Multiple Pathways Linking Environmental Knowledge and Awareness to Employees' Green Behavior. *Corporate Governance: The international journal of business in society*. 18(1), 81-103. DOI: <https://doi.org/10.1108/CG-08-2016-0168>
- 25) Sarfraz Ahmed Dakhan, Jan Muhammad Sohu, Aneela Jabeen, Manzoor Ali Mirani, Javed Ahmed Shaikh, Shuja Iqbal. (2020). Impact of Green HRM on Employees Pro-Environmental Behavior: Mediating Role of Women Environmental Knowledge at Higher Education Institutions
- 26) Shumaila Naz & Samia Jamshed & Qasim Ali Nisar & Nadia Nasir. (2022). Green HRM, psychological green climate and pro-environmental behaviors: An efficacious drive towards environmental performance in China
- 27) Sekarini Adhiati, Intan Ratnawati. (2021). The Influence of Ecological Leadership and Organizational Culture on Pro Environmental Behaviors: The Mediating Employee Environmental Empowerment
- 28) Tairu, Zainab Olabisi. (2018). Green human resource management—delivering high performance human resource systems at Divine Word University Papua New Guinea. In *Handbook of sustainability science and research* (pp. 489–511).
- 29) Tahir, R., Athar, M. R., Faisal, F., & Solangi, B. (2019). Green Organizational Culture: A Review of Literature and Future Research Agenda. *Annals of Contemporary Developments in Management & HR (ACDMHR)*, Print ISSN, 2632-7686. DOI: 10.33166/ACDMHR.2019.01.004
- 30) Wenyao Zhang, Ruzhi Xu, Yuan Jiang and Wei Zhang. (2021). How Environmental Knowledge Management Promotes Employee Green Behavior: An Empirical Study
- 31) Xing and Starik. (2017). Taoist leadership and employee green behaviour: A cultural and philosophical micro foundation of sustainability. *Business Journal of Organizational Behavior*. DOI:10.1002/JOB.2221
- 32) Yong, J. Y., Yusliza, M. Y., Ramayah, T., & Fawehinmi, O. (2019). Nexus between green intellectual capital and green human resource management. *Journal of Cleaner Production*, 215, 364–374. <https://doi.org/10.1016/j.jclepro.2018.12.306> DOI: <https://doi.org/10.1016/j.jclepro.2018.12.306>
- 33) Yong Joong Kim, et al. (2019). The effect of green human resource management on hotel employees' ecofriendly behavior and environmental performance. *International Journal of Hospitality Management*. Volume 76, Part A, January 2019, Pages 83-93
- 34) Yu, S., Abbas, J., Álvarez-Otero, S., & Cherian, J. (2022). Green Knowledge Management: Scale Development and Validation. *Journal of Innovation & Knowledge*, 7(4), 100244. DOI: <https://doi.org/10.1016/j.jik.2022.100244>
- 35) Yong Joong Kim, Woo Gon Kim, Hyung-Min Choi, Kullada Phetvaroon. (2019). The effect of green human resource management on hotel employees' ecofriendly behavior and environmental performance Zhou, Q.; Jhon Z. Wen; Pei Zhao; dan William A.A.. (2017), Synthesis of Vertically-Aligned Zinc Oxide Nanowires and Their Application as a Photocatalyst. *Nanomaterials* 2017,7(9).
- 36) Zhang, Yujing; Luo, Yilin; Zhang, Xinjing; Zhao, Jing. (2019). How Green Human Resource Management Can Promote Green Employee Behavior in China: A Technology Acceptance Model Perspective-Sustainability
- 37) Zhang, Yujing; Luo, Yilin; Zhang, Xinjing; Zhao, Jing. (2019). How Green Human Resource Management Can Promote Green Employee Behavior in China: A Technology Acceptance Model Perspective. Sustainability