## THE EFFECT OF GREEN HUMAN CAPITAL ON EMPLOYEE PERFORMANCE WITH GREEN STRUCTURAL AS A MODERATING VARIABLE

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#### Abstract

The aim of this research is to analyze the influence of green human capital on employee performance with Green Structural as moderation. The population in this study were company employees. The sampling technique in this research was purposive sampling technique. The collected data was analyzed using smartPLS. The results of this research show that green human capital has a positive effect on employee performance . Green structural is able to moderate green human capital towards employee performance.

Keywords: Employee Performance, Green Human Capital, Green Structural

#### 1. INTRODUCTION

Rising economic development in various industries gives rise to a number of negative impacts that may arise in the future. One of the main problems that needs attention is environmental destruction caused by over-exploitation of natural resources. Many companies seem to ignore the environmental impact of their activities, because they only focus on making a profit (*Profit Oriented*). (Elyateb, 2014)Companies that only prioritize profits often ignore the environmental, social and economic issues that arise. Such companies tend to think that environmental management is not important and will not affect company performance.

Based on research (Fitri et al., 2022), environmental damage has occurred, and it is believed that around sixty percent of ecosystems throughout the world have been damaged. If these behaviors do not change and no efforts are taken to address the situation, environmental problems may continue to worsen and even multiply. In the last decade, excessive activities in industries that give rise to environmental problems have attracted the attention of professionals to initiate "green" actions in organizations (Fitri et al., 2022). These issues make the world aware of the importance of a green economy and sustainable development that guarantees the interests of present and future generations. As an important indicator for determining the achievement of company goals, business performance must reflect efforts to achieve green economy and sustainable development goals.

Due to increasing environmental regulations and public concern for environmental problems, companies are starting to implement strategies that meet environmental standards in order to improve their business performance (Fernando et al., 2019); (Li et al., 2018); (Pham et al., 2020). The new era of the green economy requires management to have environmentally friendly strategies that can improve business performance and environmental sustainability. An environmentally friendly strategy requires the readiness of environmentally friendly human resources to implement the strategy effectively.

Currently, in the company decision-making process, voluntary information is also starting to become an important consideration, apart from financial information. In the context of environmental protection, the Green Human Capital (GHC), Green Structural Capital (GSC) approach, not only to meet management interests, but can also provide competitive benefits.

According to (Astuti, 2017)companies, they are required to pay attention to economic, social and environmental aspects. In other words, companies must pay attention to the interests of management and employees, society and the environment. Green Human Capital (GHC) is employee knowledge and expertise related to environmental protection efforts. According to (Yaseen et al., 2016)human capital, it is one of the keys to intellectual capital and is important for competitive advantage.

Green Structural Capital (GHC) is part of the structural capital that is tied to the organization and is not lost when employees leave the industry.

According to (Smriti & Das, 2018)structural capital, it is one of the organizational capital which includes systems, structures and processes. In the structural capital framework, the focus is on the group of organizational skills, organizational commitment, information management systems, management philosophy, organizational culture, industrial image, patents, copyrights and brands related to territorial protection or green innovation in the field.

The results of previous research regarding the influence of green human capital on business performance are still inconsistent. Several studies show the positive and significant impact of environmentally friendly human resources on business performance (Khanlarov et al., 2020). Meanwhile, other previous research by (Cabrilo & Dahms, 2018); (Yusoff et al., 2019), revealed that environmentally friendly human resources do not have a direct impact on business performance. This study gap motivated the current research. Our study uses a more specific construct, namely the readiness of environmentally friendly human resources, not just environmentally friendly human resources.

In the green economy era, the better the readiness of environmentally friendly human resources, the better the environmentally friendly market orientation strategy. Moreover, the better the green market orientation strategy, the higher the need to manage green supply chains well. Lastly, the better the environmentally friendly supply chain management, the better the business performance. Based on this background, this research intends to test the effect of green human capital on company performance with green structural as moderation.

#### 2. LITERATURE REVIEW

#### **Green Human Capital**

Green Human Capital (GHC) involves the knowledge, expertise, innovation, and environmental awareness of employees, who collectively contribute to the development of green solutions, reducing environmental impacts, and exploiting sustainable business opportunities. (Sihombing & Murwaningsari, 2022)Humans are considered to be an asset in the Green Human Capital concept (GHC), Companies with employees who perform well certainly have an impact on the company's overall performance, good results certainly show themselves, on the other hand, companies that perform poorly have a direct impact on the company's bottom line.

Green human capital and company performance can be seen in the context of high-performance work systems. What is widely debated is that a high performance work system will result from the formation and emphasis on improving human resources. It cannot be denied that improving human resources in an organization makes a significant contribution to organizational competence. This in turn encourages further increases in innovation and recent literature supports the fact that corporate performance is positively influenced by human capital.

The results of this research are supported by (Agyabeng-Mensah et al., 2020); (Victoria & Nuryasman MN, 2020)stated that green human capital has an influence on the way companies work.

# H1: It is suspected that green human capital has a positive and significant effect on employee performance

#### **Green Structural**

Structural green includes all knowledge within the company. The company's ability to carry out processes and structures on a regular basis is linked to employees creating good company performance, so that the company's value in the eyes of the public will increase, which has an impact on company performance. Companies that are able to manage the environment and are able to carry out environmental R&D and green innovation, so that environmental protection is superior in the company's management system. A superior and competitive company will be able to organize well. The company will have an impact on resources that have positive and unique value so that the company has good value from external parties and stakeholders.

This can be achieved through internal investment in research and development as well as through external engagement with many important parties including consumers, suppliers and others. A company's ability to discover useful new external information, integrate it, and apply it to the development of new goods depends on the absorptive capacity of individuals and is related to their level of expertise. According to them, it can be difficult for businesses that lack resources to conduct research and development to become recognized by the market and meet customer demand. As evidenced by patents, trademarks, and other intellectual assets, companies are projected to compete in their research and development efforts (Marbun & Saragih, 2018).

The results of this research are in accordance with the results of previous research by (Soetedja and Mursida, 2014) which stated that Structural has a significant positive influence on company performance. The research results (Gozali et al., 2014) found that among the three components of intellectual capital, the influence of structural capital on company performance is the highest. Other research results that support the positive relationship between structural capital and company performance were found by (Haniyah and Priyadi, 2014).

H2: It is suspected that green structural is able to moderate green human capital on employee performance

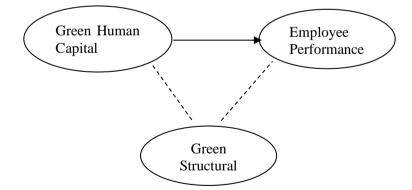


Figure 1 Conceptual Framework

#### 2. RESEARCH METHODS

The population in this study were company employees. This research is quantitative research with an exploratory approach that uses previous issues regarding Environmentally Friendly Human Resource Management, Employee Performance and the Work Environment as a

springboard to find separate elements of novelty in each topic and unite them into elements that are new and different from previously. A sample is part of a population taken in certain, clear and complete ways (Sekaran, 2006). The sampling technique in this research was purposive sampling technique. The collected data was analyzed using Structural Equational Modeling (SEM) with the help of SmartPLS software.

#### 3. RESULTS

Model measurement (Outer Model)

## a. Convergent Validity Test

This test aims to provide an explanation of the extent to which measurement indicators are positively correlated with alternative construct measurements. An indicator is said to have a good valid value if the factor loading value is > 0.70 and the average factor inflation variance (AVE) value must be greater than 0.5 (Ghozali, 2021). Test results:

Variable	Items	Loading factors
Green Human Capital	GHC1	0.721
	GHC2	0.822
	GHC3	0.791
	GHC4	0.749
	GHC5	0.852
Employee Performance	EP1	0.812
	EP2	0.842
Green Structural	GS1	0.789
	GS2	0.878
	GS3	0.772
	GS4	0.863
	GS5	0.795
	GS6	0.890

Table 1. Validity convergent

Based on table 1 above, it can be seen that all Questionnaire items in this study had a *loading* factor value > 0.70. So it can be concluded that the questionnaire items in this study have met the requirements of the *convergent validity test*.

#### b. Validity Discriminant

Test This evaluate is indicators something variable valid or No. Assumption Which underlying discriminant validity Which Good is square mark root AVE variable more big compared to correlation between other constructs. By Because That, variable the considered fulfil criteria the. According to Ghozali & Latan in (Rahmad Solling, 2019) testing Discriminant Validity by looking at the cross loading value must be more than 0.7.

Table 2. Validity discriminant

Variable	GHC (X1)	EP (Y)	GS (Z)
Green Human Capital	0.875		
Employee Performance	0.821	1,000	
Green Structural	0.843	0.18 7	0.99 3

Based on Table 2. It is known that the cross loading value of items from each indicator on the measured variable because it is concerned is greater than measuring other variables. All values are > 0.5, so it can be concluded that the results of this research instrument meet discriminant validity.

## c. Average Variance Extracted (AVE)

Objective from testing This is For evaluate is variables Which there is in modeling have consistency in measure What Which want to be measured or have reliability Which can accepted. Results the explained in the table following.

Table 3. Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)
Green Human Capital	0.852
Employee Performance	0.865
Green Structural	0.881

Based on Table 3 , the results show that the validity test of the AVE value of all variables, namely consisting of 7 variables, shows an AVE value > 0.50. This meets the minimum AVE value determined, namely 0.50, and the root value for each construct is greater than the correlation value so that the constructs in this research model can still be said to have good discriminant validity values.

#### d. Reliability Test ( Composite Reliability)

Table 4
Composite Reliability and Cronbach Alpha

Variable	Cronbach's Alpha value	Mark Composite Reliability
Green Human Capital	0.828	0.890
Employee Performance	1,000	1,000
Green Structural	0.967	0.87 2

Based on Table 4, it shows that the results of the output composite reliability and Cronbach's alpha for all constructs are > 0.7. which shows that each construct or variable has good reliability. So it can be concluded that the construct values in the research are reliable.

Structural Model Analysis (Inner Model)

R-Square

The R-Square value is used to explain how much endogenous variable data can be explained by exogenous variable data. R-Square is a number that ranges from 0 to 1, with the condition that the closer it is to one, the better. Ghozali's (2021) view explains that the r-square value is 0.75 (strong), 0.50 (medium), and 0.25 (weak).

Table 5. R- Square

Variable	R-Square Value
Green Human Capital	0.524
Employee Performance	0.632

Table 5, the R-square value for Green Human Capital is 0.524. This value indicates that the model in this research is in the medium category. Meanwhile, Employee Performance shows an r-square value of 0.632, this value shows that the resulting influence is in the medium category.

Testing Hypothesis

### **Path Analysis**

According to Ghozali & Latan in (Rahmad Solling, 2019) the significance value can be used (two-tiled) t-statistic (>1.96), path coefficient results (>0.1) and p-value (0.05).

Table 6.
Path Coefficient Results

	Variable	Path coefficient	Q Statistics (O/STDEV)	P value
Influence	Green Human Capital	0.175	2,540	0.004
	→Employee Performance			
	Green Human Capital	0.129	3,975	0.002
	→Employee Performance			
	→Green Structural			

Based on table 6 above, it can be concluded as follows:

Green Human Capital on Employee Performance has a p-value  $\leq 0.05$  and the result is  $0.004 \leq 0.05$ . Based on this explanation, it can be concluded that Hypothesis 1 is Green Human Capital has a positive and significant effect on Employee Performance.

Green Human Capital Employee Performance is moderated by Green Structural with a p-value  $\leq 0.05$  and the result is  $0.002 \leq 0.05$ . Based on this explanation, it can be concluded that Hypothesis 2, namely Green Human Capital, has an effect on Employee Performance, moderated by Green Structural **accepted**.

#### 4. DISCUSSION

#### The Influence of Green Human Capital on Employee Performance

The first result of the hypothesis is that green human capital has an influence on company performance. The results of this research show that H1 is accepted, which means Green Human Capital has a positive effect on Company Performance. The results of this research are in accordance with stakeholder theory which states that the company will make every effort to provide information that can support the value of the company or university in the

eyes of stakeholders. Information that is complete and relevant to stakeholder requests will certainly have a good impact on the company.

Humans will improve intellectually as employees to obtain new information, skills and knowledge. Therefore, employees will be able to carry out their duties efficiently, reduce errors, improve work quality, and achieve better performance (Saraswati, 2021). The availability of environmentally friendly human resources helps improve product design and quality, which differentiates a company's products from those of its competitors and can further improve company performance.

Green Human Capital induces green process innovation and enhances corporate competitive advantage and sustainability. This is reinforced by research (Yusoff et al., 2019b)that states that a company needs to improve the quality of human resources efficiently in order to create better performance. The results of this research are also in line with research results (Asiaei et al., 2022)which show that green human capital has a positive relationship with company performance.

## The Influence of Green Human Capital on Employee Performance is Moderated by Green Structural

The second hypothesis is accepted because the disclosure of green structural capital on company performance can be strengthened by the influence of green competitive advantage through the results of this research. This means that the costs incurred by the company to support the green structural capital it has to create the company's competitive advantage will improve the company's performance. Companies are able to manage the environment and are able to innovate in creating new products or services so that companies can improve management systems that are superior to environmental protection.

Green structural capital has a good influence on the way the agency works. The main goal of the company is to get large profits, by having structural capital such as mastering technology, having patents and trademarks, it will make it difficult for competitors to compete with our company, therefore it is very important in the current era to be able to mastering technology and making new breakthroughs in (Yusoff et al., 2019a)the products or services offered, so that the company remains consistent for a long period of time.

A company's ability to discover useful new external information, integrate it, and apply it to the development of new goods depends on the absorptive capacity of individuals and is related to their level of expertise. According to them, it can be difficult for businesses that lack resources to conduct research and development to become recognized by the market and meet customer demand. As evidenced by patents, trademarks, and other intellectual assets, the company is projected to be competitive in its research and development efforts.

This research is in line with (Khodijah, 2022); (Firmansyah, 2017); (Victoria & Nuryasman MN, 2020) states that green structural has an influence on the company's work.

## 5. CONCLUSION

Based on research and discussion, green human capital influences employee performance. Green structural is able to moderate the influence of green human capital on employee performance. So the proposed hypothesis is accepted.

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