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ENVIRONMENTAL LEADERSHIP ON GREEN COMPETITIVE ADVANTAGE WITH GREEN HUMAN CAPITAL AS MODERATION

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Abstract

The purpose of this study is to analyze (1) The influence of environmental organizational culture, environmental leadership, and environmental capability on green competitive advantage. (2) Green human capital moderates the influence of environmental organizational culture, environmental leadership, and environmental capability on green competitive advantage. Conducted with taking the secondary data namely all company listed on the Indonesian Stock Exchange whith purposive sampling criteria during 2018-2022 period with 256 observation. The results of this study indicate environmental organizational culture and environmental capability have no influence on green competitive advantage, while environmental leadership has influence on green advantage, green human capital strengthens the influence of environmental organizational culture. Variable control green structural capital and green relational capital has no significant influence on green competitive advantage.

Keywords: environmental organizational culture; green human capital; environmental leadership; environmental capability; green competitive advantage

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INTRODUCTION

In the current era of globalization, development of industrial business is running too fast and excessive. Those may cause environmental damage and worsening global warming, ozon depletion, water pollution, acid rain and desertification. Various impacts due to climate change influence the quality of people's lives therefore government quickly respond to these phenomena under a Presidental Regulation No. 98 year 2021 concerning on the implemantion of economic carbon value to achieve nationally determined contribution targets and control greenhouse gas emissions in national development. Greenhouse gases are gases contained in the atmosphere, both natural and anthropogenic, absorb and re-emit infrared radiation. There is a necessity to have a climate change mitigation which can reduce greenhouse gas emissions.

With major changes occurring, companies can prevent environmental pollution to protect the environment, as well as improve business models and management thinking to increase opportunities. Companies take the lead in environmental management have a "first mover advantage" which allows the company to obtain higher benefits from green products and improve the company's green image to gain a competitive advantage (Putri and Murwaningsari, 2023).

Effective environmental management consists of elements which cover all aspects of an organization's operations Cahyo et al., (2019). Therefore, environmental management is more important in organizations and has become an important part of corporate business management. Organizational environmental management is represented

by environmental organizational culture, environmental leadership, and environmental capability. Environmental organizational culture is defined as the symbolic background of environmental management and environmental innovation, which explains the behavior and way of thinking of members. From the perspective of environmental organizational culture as a strategy, companies can develop environmental management from an environmental culture that is valuable, unique, and difficult to imitate (Chen, 2011). Environmental leadership is the process by which individuals influence others to achieve environmental management and environmental innovation. Leadership can build a management climate tolerates the risks, failures, and uncertainties of environmental innovation Chen et al., (2024). Environmental capability refers to a company's ability to integrate, coordinate, build, and reconfigure competencies and resources to achieve environmental management. A company's environmental capabilities result from the use of company resources and competencies to develop environmental management. Companies can control assets, capabilities, culture, and knowledge to plan and implement strategies to help companies increase their competitiveness (Bataineh et al., 2023).

Competitive advantage is an important factor for companies to increase the achievement of sustainable development. In the knowledge-based economy, competitive advantage is driven by intangible assets. Intangible assets are one of the non-monetary assets owned by a company which can be identified without a physical form. In the Statement of Financial Accounting Standards (PSAK 19 of 2018 concerning intangible assets) intangible assets can be recognized if the company will obtain future economic benefits from the asset and the cost of acquiring the asset can be measured reliably or materially. As companies continue to increase investment in intangible assets, traditional accounting systems cannot evaluate the real value of intangible assets (Xiong et al, 2022). Intangible assets that are an important determinant of a company's competitive advantage are currently known as intellectual capital (Chaudhry et al., 2019). The concept of intellectual capital is proposed to evaluate a company's intangible assets. Although the issue of intellectual capital has been widely discussed in recent years, the concept of green intellectual capital was proposed by Chen (2008) due to the popular environmentalism trend. Green intellectual capital enables companies to comply with stringent international environmental regulations and meet growing environmental awareness among consumers, as well as creating value for companies. Organizations that undertake more environmental activities and green intangible assets can achieve competitive advantage, thanks to their commitment to environmental issues and investment in Green Intellectual Capital (Josephine et al., 2020).

Green intellectual capital according to Heryana (2024) includes green human capital, green structural capital, and green relational capital. Human resources are a major factor in a company's ability to develop and maintain competitive advantage, green human capital can play an important role in achieving sustainability goals. Green Human capital can be divided into two aspects: environmental capabilities and commitment to related activities, so that all employees and managers have the knowledge, skills, abilities, experience, attitudes, wisdom, creativity and communication skills necessary to face environmental problems (Huang and Kung, 2011). Green structural capital refers to the specifications, empowerment, and supporting infrastructure related to environmental protection or the development of sustainability strategies (Xiong et al, 2022). Meanwhile, green relational capital refers to consumers, suppliers and business partners related to environmental management (Saraswati and Inata, 2021).

Green competitive advantage is an advantage that stakeholders hope the company can develop. This is reinforced by the research results of Chen & Lin, (2016) which states that competitive advantage is an important factor for companies in achieving sustainable improvements in financial performance. Competitive advantage is defined by Chang, C. H., & Chen, (2012) as a condition where a company can carry out environmental protection and green innovation that cannot be imitated by competitors and allows the company to obtain sustainable financial performance (Astuti & Datrini, 2021).

The difference with previous research is the addition of green human capital as a moderating variable. The reason of this addition is because there are several previous studies on green competitive advantage which produced inconsistent results, including Rachmawati (2023), Dorson (2020) and Firmansyah, (2017). The inconsistent results between environmental organizational culture, environmental leadership, and environmental capability variables on green competitive advantage. Thus, it is anticipated that the inclusion of green human capital as a moderating variable may enhance the influence of the three independent variables on the dependent variables. This research adds green structural capital and green relational capital as control variables. This is expected to prevent omitted variables to avoid biased research results.

This paper contributes to the literature on sustainability green human capital which able to be proved as a quasy moderator that moderation variable was interact with independent variable as well as become independent variable.

Independent, dependent, moderating and control variables are measured using indices from Rachmawati's (2023) research, items disclosed by the company are given a score of 1, if not disclosed they are given a score of 0, then, the number of disclosures is divided by the total of all criteria must be disclosed.

According to Chen (2011), environmental organizational culture contains information about environmental management and environmental innovation, with explanations that guide members' behavior and mindset. In accordance with research conducted by Rachmawati (2023), this variable can be measured with 6 (six) items, namely: (1) The company cares about environmental management knowledge and environmental protection. (2) The company cares about the collaboration between environmental management and environmental protection. (3) The company cares about environmental agreements. (4) The company cares about changes in environmental management and environmental protection. (5) The company cares about responsiveness in environmental management and environmental protection. (6) The company cares about the vision of environmental management and environmental protection. The formula is as follows: EOC (Environmental Organizational Culture) = n (number of items disclosed by the company) divided by k (number of items contained in Environmental Organizational Culture).

Chen (2011), defines environmental leadership as a dynamic process in which one person influences others to facilitate the achievement of environmental management and environmental innovation. Based on research conducted by Rachmawati (2023), this variable can be measured with 4 (four) items as follows: (1) Company leaders inspire the company's vision as environmental sustainability, creating or maintaining environmental values within the company. (2) Corporate leaders use a well-developed approach to environmental management that generally centers on programs tailored to the company's specific business and markets. (3) Company leaders collaborate with company stakeholders to solve environmental problems and to achieve environmental goals. (4) Corporate leaders can take responsibility for environmental education with the aim of involving employees in environmental management initiatives. The formula is as follows: EL (Environmental Leadership) = n (number of items disclosed by the company) divided by k (number of items contained in Environmental Leadership).

Defined as a company's ability to integrate, coordinate, build and reconfigure its competencies and resources to achieve environmental management and environmental innovation (Chen et al., 2012). Based on research conducted by Rachmawati (2023), this variable can be measured with 4 (four) items, consisting of: (1) The company's ability to integrate, coordinate, build and reconfigure its competencies and resources to achieve environmental management and environmental innovation with Good. (2) The company's ability to integrate, coordinate, build and reconfigure its competencies and resources to achieve environmental management and environmental innovation that is rare in the market. (3) The company's ability to integrate, coordinate, build and reconfigure its competencies and resources to achieve environmental management and environmental innovation that are difficult for competitors to imitate. (4) The company's ability to integrate, coordinate, build and reconfigure its competencies and resources to achieve environmental management and environmental innovation that are difficult to replace. The formula is as follows: EC (Environmental Capability) = n (number of items disclosed by the company) divided by k (number of items contained in Environmental Capability).

Green Competitive advantage is a company quality in which an organization utilizes its skills, competencies, and resources efficiently that cannot be imitated by competitors. The success or failure of a company is determined by competitive advantage, which allows a company to achieve its goals (Widajanti, 2014). Based on research conducted by Hermundsdottir and Aspelund (2021) and Rachmawati (2023), this variable can be measured with 13 (thirteen) items. The formula is as follows: GCA (Green Competitive Advantage) = n (number of items disclosed by the company) divided by k (number of items contained in Green Competitive Advantage).

Green human capital is the sum of employees' knowledge, skills, abilities, experience, attitudes, wisdom, creativity and commitment and so on regarding environmental protection (Chen, 2008). In accordance with research conducted by Yusoff et al. (2019) and Rachmawati (2023), this variable can be measured with 5 (five) items, namely: (1) Employees in the company are involved in positive productivity and contribute to environmental protection. (2) Company employees have sufficient competence in environmental protection. (3) Company employees provide good quality services and products related to environmental protection. (4) The level of cooperation of the work team related to environmental protection is demonstrated at a high level within the company. (5) Company managers strongly support employees to achieve their work in accordance with environmental protection. The formula is as follows: GHC (Green Human Capital) = n (number of items disclosed by the company) divided by k (number of items contained in Green Human Capital).

According to Chen (2008), green structural capital consists of organizational capabilities, organizational commitment, knowledge management systems, management philosophy, organizational culture, image, patents, copyrights, trademarks, etc. related to environmental protection or green innovation of organizations or companies. In line with research conducted by Rachmawati (2023), this variable can be measured with 6 (six) items, namely: (1) The company has a high management system for environmental protection. (2) The company has a high ratio of employees who understand environmental management to total employees. (3) The knowledge management system in the company works well for the accumulation and sharing of knowledge about environmental management. (4) The company establishes a committee to advance key environmental protection issues. (5) The company has

created a detailed policy on environmental protection. (6) The Company has established a reward system for the completion of various environmental related tasks. The formula is as follows: GSC (Green Structural Capital) = n (number of items disclosed by the company) divided by k (number of items contained in Green Structural Capital).

Green relational capital is an interactive relationship between companies and customers, suppliers, members, and partners related to organizational environmental management and green innovation (Huang and Kung, 2011). In line with research conducted by Rachmawati (2023), this variable can be measured with 5 (five) items, namely: (1) Companies design products and services to fulfill customers' desires for the environment. (2) The company carries out customer satisfaction surveys, the company has a cooperative relationship regarding environmental protection from the company with stable suppliers. (3) The company has a stable cooperative relationship towards environmental protection from the company with its main customers. (4) The company has a good and stable cooperative relationship regarding environmental protection activities with its strategic partners. The formula is as follows: GRC (Green Relational Capital) = n (number of items disclosed by the company) divided by k (number of items contained in Green Relational Capital).

Based on Douglas et al, (2010), resource-based view theory states that companies that can manage company resources that are unique and rare for competitors, can create competitive advantages and create value that is beneficial to the company. Increasing value for the company will have an impact on increasing the welfare of stakeholders. This is in line with stakeholder theory.

Organizations that use their expertise, environment, capabilities, culture, and resources efficiently that cannot be imitated by competitors can increase their green competitive advantage (Chaudhry et al., 2019). The success or failure of a company is determined by its competitive advantage, which allows the company to achieve its goals (Widajanti, 2014). An organizational culture that is unique and not easily imitated can be a strategic tool for companies to gain competitive advantage (Rachmawati, 2023). Where the company is a context in which environmental management and environmental protection have been implemented. This shows that organizational members have behaved and understood the environmental organizational culture.

The statement above is in accordance with research conducted by Rachmawati (2023), Widiyati and Murwaningsari (2021), the results show that environmental organizational culture has a positive influence on green competitive advantage. The results of this research are in line with Wang (2019) and Gurlek & Tuna (2017) showing that environmental organizational culture has a positive influence on green competitive advantage. Based on this explanation, a hypothesis is formulated. H1: Environmental Organizational Culture has a positive influence on Green Competitive Advantage.

Resource based view theory according to Douglas et al, (2010) describes that company resources capable of conferring a competitive advantage include human resources endowed with capabilities. In this way, the company will achieve green competitive advantage if human resources have leadership that pays attention to the environment. This is a form of stakeholder satisfaction which is in line with stakeholder theory.

Environmental Leadership is a dynamic process of one person influencing others and thereby contributing to team achievements (Firmansyah, 2017). Management can increase motivation in planning organizational changes aimed at improving environmental performance and competitive advantage through environmental leadership. Environmental leadership has four goals, namely building an environmental vision; using good environmental management methods; building partnerships with stakeholders to address environmental problems and achieve environmental goals; and has responsibility for environmental education so that employees can participate in environmental management initiatives (Rachmawati, 2023).

The leader's contribution is considered important because it includes responsibility for creating a strategic vision and shaping the corporate culture, through which competitive advantage can be achieved (Fernandez et al., 2003). This is in line with stakeholder theory, this research is supported by Wardaya and Tarigan (2016) where leadership has a positive influence on competitive advantage. And research (Chen, 2011) shows that environmental leadership has a positive influence on green competitive advantage. Based on this explanation, a hypothesis is formulated. H2: Environmental Leadership has a positive influence on Green Competitive Advantage.

The resource-based view theory perspective according to Douglas et al, (2010) states that environmental management is an important part of company strategy and is considered a unique competency. The resource-based view believes that a company's competitive advantage comes from the capabilities of its resources. Thus, companies that mobilize environmental capability can gain sustainability advantages and can create prosperity for stakeholders.

Environmental capability is a company's ability to collect, coordinate, determine and allocate capabilities and resources to adapt to the environment (Chen et al., 2013). Environmental capabilities are generated by using a company's resources and capabilities to build competitive advantage strategies. Companies can control assets, capabilities, culture, and knowledge to formulate and implement strategies to help companies manage the level of competition for the company (Rachmawati, 2023).

Based on research by Lin and Chen (2017), Chen et al. (2012) and Rachmawati (2023) which shows the results that environmental capability has a positive influence on green competitive advantage. Where companies initiate new ideas related to environmental innovation to gain green competitive advantage. Based on this explanation, a hypothesis is formulated. H3: Environmental Capability has a positive influence on Green Competitive Advantage.

Competitive advantage refers to the quality of a company where an organization uses its skills, abilities, and resources efficiently that cannot be imitated by competitors (Chaudhry et al., 2016). The success or failure of a company is determined by its competitive advantage, which allows the company to achieve its goals (Rahim & Radjab, 2017). Organizational culture can be a strategic tool for companies to gain competitive advantage from an organizational culture that is valuable, unique, and cannot be imitated (Fiol, 1991). The unique organizational culture of a company makes it difficult for competitors to obtain the benefits obtained by the company through a green organizational culture (Chen, 2008).

The above statement is in accordance with research conducted by Widiyati and Murwaningsari (2021), the results show that environmental organizational culture has a positive influence on competitive advantage. Then research conducted by Wang (2019) and Gurlek & Tuna (2017) shows that environmental organizational culture has a positive influence on competitive advantage. The results of this research are in line with Rachmawati (2023) that environmental organizational culture has an influence on green competitive advantage.

Chen (2008) shows research results that green intellectual capital has a significant impact on a company's competitive advantage. Amrizah and Rashidah (2013) research on the influence of green intellectual capital which includes human capital, structural capital, and relational capital on organizational effectiveness, concluded that there is a significant and positive relationship between green intellectual capital and green competitive advantage.

Other research that supports the results that there is a positive relationship between green human capital and competitive advantage has been conducted by Astuti and Datrini (2021), Cahyono and Hakim (2020) and Susandya et al. (2019). Based on this explanation, the following hypothesis is formulated. H4: Green Human Capital strengthens the influence of Environmental Organizational Culture and has a positive influence on Green Competitive Advantage.

Environmental leadership can give companies two competitive advantages, namely outperforming competitors to meet market demand for environmentally friendly products or services. Apart from that, it can save costs, energy, materials and reduce waste. Implementing this leadership strategy can balance the risks of competitive advantage, so that environmental leadership can satisfy company stakeholders (Rafi and Murwaningsari, 2022).

Resource based view theory according to Douglas et al, (2010) explains that one of the company resources that can provide a competitive advantage for the company is human resource capability. This statement is in accordance with research conducted by Wardaya and Tarigan (2016) and Chen (2011) where environmental leadership has a positive influence on green competitive advantage. The results of this research are in line with (Rachmawati, 2023).

Chen (2008) believes that green intellectual capital has a significant impact on a company's competitive advantage. Green intellectual capital comprises a human capital indicator. According to Rachmawati (2023) green human capital has a positive and significant influence on green competitive advantage. The statement above is in accordance with research by Cahyono and Hakim (2020), Susandya et al. (2019), Astuti and Datrini (2021) and Chen (2008) which has found a positive relationship between green human capital and green competitive advantage. Based on this explanation, a hypothesis is formulated. H5: Green Human Capital strengthens the influence of Environmental Leadership and has a positive influence on Green Competitive Advantage.

According to Chen and Chang (2013), capability is a company's ability to use existing resources and knowledge to update and develop the organization's environmental capabilities to respond to dynamic markets. Environmental capability is a company's ability to collect, coordinate, determine and allocate capabilities and resources to adapt to environmental management and environmental innovation capabilities (Rachmawati, 2023).

Environmental capabilities are generated by using a company's resources and capabilities to build a green competitive advantage strategy. Based on research by Lin and Chen (2017) and Chen et al. (2012) who found that environmental capability has a positive influence on green competitive advantage. Where companies initiate new ideas related to environmental innovation to gain green competitive advantage. The results of this research are in line with Rachmawati (2023) that environmental capability has an influence on green competitive advantage.

Chen (2008) believes that green intellectual capital has a significant impact on a company's competitive advantage. In green intellectual capital there is a human capital indicator. According to Rachmawati (2023) green human capital has a positive and significant influence on green competitive advantage. The statement above is in accordance with research by Cahyono and Hakim (2020), Susandya et al. (2019), Astuti and Datrini (2021) and Chen (2008) which has found a positive relationship between green human capital and green competitive advantage. Based on this explanation, a hypothesis is formulated. H6: Green Human Capital strengthens the influence of Environmental Capability and has a positive influence on Green Competitive Advantage.

METHOD

Quantitative research methods use balanced secondary data. The population in this study are companies listed on the Indonesia Stock Exchange. The research sample was taken by purposive sampling, namely sampling using certain considerations and criteria, as follows: (1) Companies listed on the Indonesian Stock Exchange and publishing annual reports or sustainability reports during the period 31 December 2018-2022 respectively except financial companies and services (www.idx.co.id). (2) Companies that have variables are needed in this research. This research sample used unbalanced data with 97 companies listed on the Indonesia Stock Exchange (BEI) and publishing Sustainability Reports. The research period was 2018 – 2022 with a total of 256 observations. The method used in this study is Ordinary Least Squares (OLS), which is employed to address the research questions by satisfying several assumptions.

RESULTS

Descriptive statistics of the variables used in this research. To make it clear, it can be displayed as follows:

Table 1. Descriptive Statistics Test Results

Variable	Min	Max	Mean	Dev Std
GCA	0.3846	1.0000	0.7881	0.1498
EOC	0.6667	1.0000	0.9576	0.0811
EL	0.2500	1.0000	0.7636	0.1793
EC	0.2500	1.0000	0.5302	0.3008
GHC	0.0000	1.0000	0.6320	0.2964
GSC	0.0000	0.8333	0.5006	0.1944
GRC	0.0000	1.0000	0.6972	0.3323

Source: Data processed (SPSS 22.00)
Note: GCA: Green Competitive Advantage; EOC: Enviromental Organzational Culture; EL: Enviromental Leadership; EC: Enviromental Capability; GHC: Green Human Capital; GSC: Green Structural Capital; GRC: Green Relation Capital.

The standard deviation of all variables is < the average, which means that the distribution of the variables is homogeneous and it is a population consisting of elements with the same properties. The correlation test is carried out before carrying out the t test, the aim is to see the correlation between dependent and independent variables as follows:

Table 2. Correlation Test Results Correlation Test Results

	GCA	EOC	EL	EC	GHC	GSC	GRC
GCA	1						
EOC	-0.0124**	1					
EL	-0.0518**	0.0287	1				
EC	-0.1901**	-0.0544	0.3875**	1			
GHC	0.3788**	-0.0575	-0.1078	-0.2879**	1		
GSC	0.3465**	0.0846	-0.0659	-0.1764**	0.5326**	1	
GRC	0.1625**	0.0139**	-0.0537	-0.0551	0.1386*	-0.0146	1

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).
Note: GCA: Green Competitive Advantage; EOC: Enviromental Organzational Culture; EL: Enviromental Leadership; EC: Enviromental Capability; GHC: Green Human Capital; GSC: Green Structural Capital; GRC: Green Relation Capital.

The relationship between Environmental Organizational Culture and Green Competitive Advantage statistically has a very weak and significant negative relationship (-0.0124**), this result is in line with the influence test, where the test results show a negative influence of Environmental Organizational Culture on Green Competitive Advantage (-0.135*). The relationship between Environmental Leadership and Green Competitive Advantage statistically has a very weak and significant negative relationship (-0.0518**), this result is not in line with the t test where the test results show a positive influence of Environmental Leadership on Green Competitive Advantage (0.180**). The relationship between Environmental Capability and Green Competitive Advantage statistically has a very weak and significant negative relationship (-0.1901**), this result is in line with the t test. Where the test results show the beta sign of the influence of Environmental Capability on Green Competitive Advantage is negative (0.087) but not significant. The next test is the t test to prove each hypothesis, as follows:

Table 3. T-Test Results (Individual Test)

Variable	Predictions	Coefficients	Prob		Collinearity	
					Tolerance	VIF
Constant		0.872	0.000			
EOC	+	-0.135	0.088		0.622	1.608
EL	+	0.180	0.016	**	0.185	5.413
EC	+	-0.087	0.061		0.139	7.200
GHC		0.755	0.010	*	0.005	191.737
EOC*GHC	+	0.122	0.090	*	0.059	17.073
EL*GHC	+	0.310	0.007	***	0.043	23.445
EC*GHC	+	0.119	0.090	*	0.120	8.367
GSC		0.163	0.000	*	0.712	1.404
GRC		0.076	0.000	*	0.953	1.049
R2		0.473				
Adj R2		0.453				
F stat		0.000				
Kolmogorov Smirnov		0.914				
Durbin Watson		2.120				
Gletser Test		0.05				
Observation		256				

Source: Processed data (SPSS 22.00) *= signifikan 0,05, ** = signifikan 10%
Nota: GCA: Green Competitive Advantage; EOC: Enviromental Organzational Culture; EL: Enviromental Leadership; EC: Enviromental Capability; GHC: Green Human Capital; GSC: Green Structural Capital; GRC: Green Relation Capital.

Based on Table 3 above, it shows that Adj R2 is 0.453, meaning that the ability of the independent variable to explain the dependent variable is 45.3%, while the remainder is explained by other independent variables that are not included in the model. F Stat 0.000 means that in both models there is at least one independent variable that is significant to the independent variable. The normality test using Kolmogorov Smirnov shows a result of 0.914, meaning that at the 95% confidence level the assumption of normality distribution for the error variable is met. Meanwhile, the classic assumption test for the inflation factor variant shows that in the model the VIF value for all variables in this study is less than 10, it is concluded that the independent variables are not correlated with each other, or the assumption of no multicollinearity is met, except for the variables EOC*GHC and EL*GHC, this can be ignored because it uses interaction variables. The results of the glacier test show that in the model the sig value for all variables in this study has a value greater than 0.05 (5%), it can be concluded that the homoscedasticity assumption is met. While the results of the Durbin Watson test show a result of 2.120, Ho fails to be rejected and it is concluded that the assumption of no autocorrelation is met.

Based on the results of statistical tests, it is known that the coefficient for Environmental Organizational Culture is -0.135 and Environmental Capability is -0.087, meaning that if Environmental Organizational Culture increases by one-unit, Green Competitive Advantage will decrease by 0.135 and Environmental Capability by 0.087 units. The resulting coefficient value does not match the hypothesis where Environmental Organizational Culture and Environmental Capability have a positive influence on Green Competitive Advantage, so the hypothesis test was not carried out again and Ho failed to be rejected. It can be concluded that statistically there is no influence of Environmental Organizational Culture and Environmental Capability on Green Competitive Advantage.

The coefficient of Environmental Leadership is 0.180, meaning that if Environmental Leadership increases by one-unit, Green Competitive Advantage will increase by 0.180 units. The resulting coefficient value is in accordance with the hypothesis where Environmental Leadership has a positive influence on Green Competitive Advantage, so the hypothesis test is carried out again where the processing results show a sig value of 0.016 < 0.05 (alpha 5%) so Ho is rejected. It was statistically concluded that at a 95 percent confidence level there was a positive influence of Environmental Leadership on Green Competitive Advantage.

The coefficient of Environmental Organizational Culture, Environmental Leadership and Environmental Capability which is moderated by Green Human Capital is 0.122; 0.310; 0.119 means that if Environmental Organizational Culture moderated by Green Human Capital increases by one unit, the average Green Competitive Advantage would increase by 0.122; 0.310; 0.119 units. These results are in accordance with the proposed hypothesis, where Green Human Capital strengthens the positive influence of Environmental Organizational Culture, Environmental Leadership and Environmental Capability on Green Competitive Advantage, therefore the significance test can be continued. The processing results show a sig value of 0.007 and 0.090 <0.10, so the hypothesis is accepted. It can be concluded statistically that Green Human Capital strengthens the positive influence of Environmental Organizational Culture, Environmental Leadership and Environmental Capability on Green Competitive Advantage.

DISCUSSION

Environmental Organizational Culture has no influence on Green Competitive Advantage, this does not support research conducted by Rachmawati (2023), Widiyati and Murwaningsari (2021), Gürlek and Tuna (2018), and Wang (2019) which found that environmental organizational culture has a positive influence on green competitive advantage. The results of this research show that environmental organizational culture has not been able to have an influence on green competitive advantage. This is possibly because the environmental organizational culture in the company is not yet embedded in the behavior and understanding of organizational members regarding environmental protection. Another possibility is that the organization has not considered environmental protection as a priority in the company's business. So, they don't yet have a strategic environmental vision and implement that vision to gain environmental superiority. Thus, companies must increase environmental knowledge and employee competence, to increase environmental activities (Huang and Kung, 2011). Companies should prioritize green organizational culture, which is a key competency and reflects resources that are difficult to imitate which can produce green competitive advantage.

Environmental Leadership has a positive influence on Green Competitive Advantage, this is in line with Chen (2011) and Wardaya and Tarigan (2016) who found that environmental leadership strategies have a positive influence on competitive advantage. Meanwhile, Rachmawati (2023) stated that environmental leadership has no influence on green competitive advantage. The research results have a positive influence, meaning that companies have a priority in conducting business by prioritizing environmental protection. Environmental leadership can provide a competitive advantage for a company in two ways: catering to demand in the market for environmentally responsible products or services ahead of its competitors. The company has implemented environmental leadership by aligning its environmental vision. Various approaches were developed to create collaboration with stakeholders. Thus, implementing the responsibility of environmental education for employees is proven to be able to achieve green competitive advantage.

Environmental Capability has no influence on Green Competitive Advantage, this is in line with Rachmawati (2023) who states that Environmental Capability has no influence on green competitive advantage. Meanwhile, Lin and Chen (2017) and Chen et al. (2012) who found that capability has a positive influence on competitive advantage. The lack of influence of environmental capability on green competitive advantage shows that the application of environmental knowledge, environmental management and environmental protection in companies is still not a priority in business. In developing countries such as Indonesia, companies still do not focus on environmental management but still prioritize large profits to carry out their company activities. On the other hand, if we look at it from external parties, such as investors and customers, the company has not yet raised environmental issues, so it does not encourage companies to be aware of environmental protection.

Green Human Capital as a moderating variable is proven to strengthen the influence of Environmental Organizational Culture on Green Competitive Advantage (GHC*EOC), and strengthen the influence of environmental leadership on green competitive advantage (GHC*EL), as well as strengthen the influence of environmental capability on green competitive advantage (GHC*EC). This means that green human capital together with environmental organizational culture, environmental leadership and environmental capability can create a green competitive advantage. If referring to Sharma, et all (1981), the interaction variables namely (GHC*EOC), (GHC*EL) and (GHC*EC) have significant results, then the moderating variable, namely green human capital, is included in the pseudo moderation category (Quasi Moderator). . This means that green human capital is shown as a moderating variable that interacts with the independent variable and at the same time becomes an independent variable.

CONCLUSION

The independent variable that has an influence on the dependent variable is Environmental Leadership, which has a positive effect on green competitive advantage. This is consistent with the studies by Chen (2011) and Wardaya and Tarigan (2016).

On the other hand, the independent variables that do not have an influence on the dependent variable are Environmental Organizational Culture and Environmental Capability, which do not have an effect on Green Competitive Advantage. This aligns with the studies by Rachmawati (2023), Widiyati and Murwaningsari (2021), Gürlek and Tuna (2018), Wang (2019), and Rachmawati (2023).

The moderating variable, Green Human Capital, has been proven to strengthen the influence of Environmental Organizational Culture, Environmental Leadership, and Environmental Leadership on Green Competitive Advantage, thus the moderating variable is categorized as a Quasi Moderator.

The control variables, namely Green Structural Capital and Green Relational Capital, are proven to have a

significant influence on Green Competitive Advantage, the results of this research are in line with (Rachmawati, 2023). This means that companies that implement green structural capital and green relational capital related to environmental management have an important impact on company operations.

It is hoped that the implications of this research can help investors in considering investment decisions in companies that implement environmental leadership and green human capital in achieving green competitive advantage. The limitation of this research is the subjectivity of data collection using content analysis with dummies 0 (no disclosure) and 1 (with disclosure) in calculating the index. Thus, it is recommended to determine the index using more than 2 dummies by assigning weights to each indicator.

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