CORPORATE GOVERNANCE ROLE AS MODERATING GREEN INTELLECTUAL CAPITAL AND GREEN ACCOUNTING INFLUENCE ON SUSTAINABLE FINANCE IMPLEMENTATION

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ABSTRACT
The sustainable finance implementation is a comprehensive support for the financial services industry as an intermediary institution that supports Sustainable Development Goals. The purpose of this study was to analyze the role of corporate governance mechanisms as moderating effect of green intellectual capital and green accounting on sustainable finance implementation in banks listed on the Indonesia Stock Exchange. The study use quantitative method and data in this study uses 149 firm years banking companies taken from the company's Annual Report and/or Sustainability Report using the 2016 to 2020 observation period. This study uses the Moderated Regression Analysis (MRA) method. The result of study that green human capital, green structural capital and green accounting have a positive effect on sustainable finance implementation. Meanwhile, green relational capital has no effect on sustainable finance implementation. In addition, the corporate governance mechanism is not able to moderate the influence of green human capital, green structural capital, green relational and green accounting on sustainable finance implementation. For control variables, firm size, leverage and firm age have an effect on sustainable finance implementation, while profitability has no effect on sustainable finance implementation.

INTRODUCTION
In the era of globalization, the existence of a company is often associated with the emergence of negative impacts on the environmental around the company. The negative impact is in the form of climate change originating from the operational activities of a company which then becomes special attention from various parties (Anggraini et al., 2020). This climate change requires companies to focus more on their operational activities have not a significant impact on the environmental in which the company operates. This is the hope of the surrounding community, so the company can minimize negative impacts on environmental (Andania & Yadnya, 2020). Therefore, companies are required to implement green initiatives.

The banking sector is expected not only to carry out its main tasks, namely collecting and distributing funds, but also to maintain concern for the environment (community) as a form of its responsibility towards the environment and surrounding communities. This responsibility can be applied to service processes and other positive activities that are more oriented to the social and environmental spheres (Santoso et al., 2017). An important reason for banking to apply the concept of sustainable finance is that companies must have awareness that their operational activities are carried out in a community environment, companies and communities must also have a relationship that requires each other, and the last reason is to avoid conflicts that can occur at any time between companies and communities.

On Roadmaps Sustainable Finance Phase I (2015-2019) still needs to raise awareness from the financial services industry, so in Phase I there is still a low understanding of the Bank
related to the implementation of sustainable finance, there is no green standardization by banking, the Bank has not taken advantage of big opportunities, Social, Environmental and Governance (LST) risk has not been integrated and there is still a need for increased coordination and cooperation with Ministries/Institutions, so a phase II sustainable finance roadmap is needed (OJK, 2021).

In Roadmaps Sustainable Finance Phase II (2021-2025) states that to accelerate the application of environmental, social and governance principles in Indonesia, companies must focus on creating a comprehensive sustainable finance ecosystem, by involving all related parties and encouraging the development of collaboration with other parties. The Phase II Sustainable Finance Roadmap is expected to become a foundation for the Financial Services Sector and a reference for relevant Ministries/Institutions in developing innovative financing initiatives.

The implementation of sustainable finance must be supported by several factors, including the existence of a corporate governance mechanism, green intellectual capital and green accounting. Good corporate governance mechanisms are used to ensure equal interests among stakeholders, so business and managerial decisions taken by companies do not harm stakeholders. In addition, this includes demands for financial institutions to carry out more ethical business practices such as disclosure regarding social and environmental responsibility to external parties (Bose et al., 2018).

To implement good corporate governance, the five principles of corporate governance that are transparency, accountability, responsibility, independence, and fairness must be met or implemented. In addition to the importance of implementing good corporate governance, companies also need to have green intellectual capital which is expected to encourage companies to comply more with environmental regulations and be able to meet consumer needs for green products and be able to create value for the company. Green intellectual capital has the main role of focusing company performance into sustainability goals through knowledge that complies with regulations and best practices (Firmansyah, 2017).

Green intellectual capital in this study is measured by green human capital, green structural capital and green relational capital. Green human capital is the ability, expertise, experience, behavior and commitment of employees to environmental protection. Furthermore, green structural capital is the specification and infrastructure support for environmental protection and everything related to environmental management. Meanwhile, green relational capital is a company's intellectual capital that used to find out the positive influence of relational capital built by the company on the company's competitive advantage (Firmansyah, 2017). In addition, green accounting is also able to influence the implementation of sustainable finance in the banking industry in Indonesia. This is because green accounting implemented by various companies is used to produce quantitative assessments of costs and carry out environmental protection (Goddess, 2020).

This study aims to provide empirical evidence regarding the effect of green intellectual capital and green accounting on the implementation of sustainable finance moderated by corporate governance.

The Effect of Green Human Capital on the Implementation of Sustainable Finance

Green human capital considered a vital asset to any company. Better employee performance can have a direct impact on productivity, which can improve both profitability and corporate image (Ballesteros-Rodríguez et al., 2022). Based on resource-based view theory, green human capital is able to provide a competitive advantage for companies in the form of developing green innovations produced by companies (Yong et al., 2019).

Research conducted by Josephineet al., (2020) found that green human capital has a positive effect on business sustainability. Furthermore, research conducted by Liao et al.,
(2021) found that green human capital has a positive effect on corporate social responsibility. Based on this description, the hypothesis is formulated as follows:

**H1: Green human capital has a positive effect on the implementation of sustainable finance.**

**The Effect of Green Structural Capital on the Implementation of Sustainable Finance**

Based on the resource-based view theory, green structural capital enables companies to generate a positive environment, employees with good welfare, generate profits for the company and are able to support companies to place their role in supporting the implementation of sustainable finance (Yussof et al., 2019). Research conducted by Yussof et al. (2019) found that green structural capital has a positive effect on business sustainability. Firmansyah (2017) found results that green structural capital has a positive effect on green competitive advantage. Furthermore, research conducted by Ali et al., (2021) who found that green structural capital has an effect on green innovation. Based on this description, the hypothesis is formulated as follows:

**H2: Green Structural Capital has a positive effect on the implementation of sustainable finance.**

**The Effect of Green Relational Capital on the Implementation of Sustainable Finance**

Based on resource-based view theory, stable green collaboration allows for environmental awareness among partners which will further minimize the impact on the environment and will increase the competitive advantage of the company (Dickel et al., 2018). It can be concluded that, progressively green relational capital is able to expand green practices including in increasing the implementation of sustainable finance in companies.

Research conducted by Firmansyah (2017) who found that green relational capital has a positive effect on green competitive advantage. Furthermore, research conducted by Yussof et al., (2017) found that green relational capital has a positive effect on business sustainability. Based on this description, the hypothesis is formulated as follows:

**H3: Green relational capital has a positive effect on the implementation of sustainable finance.**

**The Effect of Green Accounting on the Implementation of Sustainable Finance**

Companies that carry out environmental management well, will disclose information related to the environment better which will improve the implementation of sustainable finance (Goddess, 2020). This is in line with stakeholder theory which states that a company must meet the needs of its stakeholders. The application of green accounting is used as a form of communication and accountability in order to gain, maintain and or increase the trust of stakeholders.

This research is supported by research conducted by Mostofa et al., (2020) who found that green accounting has a positive effect on corporate social responsibility disclosure. In addition, it is also supported by the research of Rizki et al., (2019) who found that environmental performance has a positive effect on corporate social responsibility. Based on the description above, it can be concluded that green accounting is expected to have a positive effect on the implementation of sustainable finance and the hypothesis can be formulated as follows:

**H4: Green accounting has a positive effect on the implementation of sustainable finance.**

**The Role of Corporate Governance in Moderating the Effect of Green Human Capital on the Implementation of Sustainable Finance**

Ethical banking management practices that apply the concept sustainable finance requires the role of corporate governance. This is because the corporate governance mechanism will be able to encourage pro-customer, community, environmental and social bank operational practices, so that they are in line with the demands of environmental and social responsibility (Handajani, 2019). With optimal monitoring of the achievement of good corporate governance, it is hoped that it will be able to increase the role of green intellectual capital in encouraging the implementation of sustainable finance. This is in line with agency theory which states that
the better the mechanism of corporate governance in a bank, the greater the oversight of the company so that the company's disclosures are wider, including disclosures regarding corporate social responsibility (Qoyum et al., 2017).

This research is supported by Handayati (2019) who found the results that corporate governance has a positive effect on corporate social responsibility disclosure. In line with the research conducted by Ani and Fredy (2017) found that one of the governance mechanisms that is proxied by the size of Board of Directors has a significant effect on sustainable finance disclosure. Based on the description above, it can be concluded, the corporate governance mechanism is expected to strengthen the influence of green human capital on the implementation of sustainable finance and the hypothesis can be formulated as follows:

H5: Corporate governance strengthens the influence of green human capital on the implementation of sustainable finance

The Role of Corporate Governance in Moderating the Effect of Green Structural Capital on the Implementation of Sustainable Finance

Good corporate governance mechanisms at the Bank will encourage companies to disclose their social information in more detail. This is done to ensure that the Bank's management does not only disclose information that has a positive impact, but also discloses various information that has a negative impact in order to increase information transparency (Pare et al., 2017). Therefore, with the existence of a good corporate governance mechanism owned by the Bank, it is hoped that it will be able to increase the existence of green structural capital at the Bank which will encourage increased implementation of sustainable finance.

In line with the research conducted by Handajani (2019) found that one of the corporate governance mechanisms that is proxied by the size of the Board of Commissioners has a positive effect on green banking disclosure. Bose et al., (2018) found evidence that the higher level of green banking disclosure in banking companies is related to one of the corporate governance mechanisms, namely the increasing board size. In addition, Yussof et al., (2019) found that green structural capital has a positive effect on business sustainability. Based on the description above, it can be concluded that the corporate governance mechanism is expected to be able to strengthen the influence of green structural capital on the implementation of sustainable finance and the hypothesis can be formulated as follows:

H6: Corporate governance strengthens the influence of green structural capital on the implementation of sustainable finance

The Role of Corporate Governance in Moderating the Effect of Green Relational Capital on the Implementation of Sustainable Finance

Good corporate governance mechanisms at the Bank will encourage companies to disclose their social information in more detail. This is in line with agency theory which states that supervision is carried out to ensure that Bank management does not only disclose information that has a positive impact, but also discloses various information that has an adverse impact in order to increase information transparency (Pare et al., 2017).

This research is supported by research conducted by Bose et al., (2018) found that corporate governance mechanisms have a positive effect on green banking. In addition, Yussof et al., (2019) found that green relational capital has a positive effect on business sustainability. Based on the description above, it can be concluded that the corporate governance mechanism is expected to be able to strengthen the influence of green relational capital on the implementation of sustainable finance and the hypothesis can be formulated as follows:

H7: Corporate governance strengthens the influence of green relational capital on the implementation of sustainable finance

The Role of Corporate Governance in Moderating the Effect of Green Accounting on the Implementation of Sustainable Finance
The application of green accounting requires a good corporate governance mechanism to provide high oversight that guarantees the interests of its stakeholders. Supervision is carried out in the form of environmental and social performance monitoring (Handajani, 2019). In accordance with agency theory which states that corporate governance mechanisms also play a role in ensuring the implementation of risk management and the implementation of good corporate governance, as well as maintaining information disclosure to stakeholders (Pare et al., 2017).

This research is supported by research conducted by Handajani(2019) found that one of the corporate governance mechanisms that is proxied by the size of the Board of Commissioners has a positive effect on green banking disclosure. Furthermore, in supporting this hypothesis, there is research conducted by Mustofa et al., (2020) who found that green accounting has a positive effect on corporate social responsibility disclosure. Based on the description above, the existence of a corporate governance mechanism is expected to strengthen the influence of green accounting on the implementation of sustainable finance.

H8: Corporate governance strengthens the influence of green accounting on the implementation of sustainable finance

**RESEARCH METHOD**

**Population and Sample**

The study applied quantitative research method. The population in this study are banks listed on the Indonesia Stock Exchange. This study takes the analysis period from 2016 to 2020. Data were obtained from Annual Reports, Sustainability Reports and official banking websites listed on the Indonesia Stock Exchange for the period 2016 to 2020. Based on the type, the data used in this research is secondary data, namely the company's annual financial statements for 2016 to 2020.

**Independent Variable**

The independent variable in this study is green intellectual capital which is proxied by green human capital, green structural capital and green relational capital and green accounting.

**Green Human Capital**

Green human capital defined as the final presentation of employee knowledge, skills, abilities, experience, behavior, wisdom, creativity and commitment to environmental protection or green innovation (Chen, 2008). Researchers use content analysis by giving a value of 1 (one) if the bank discloses green human capital indicators and a value of 0 (zero) if not. Green human capital in this study is measured by the formula developed by Yusoff et al. (2019) as follows:

$$GHC = \frac{Exposed\ Indicator}{5}$$

Information:

GHC : Green Human Capital

**Green Structural Capital**

Green structural capital defined as reserves of patents, trademarks, hardware, software, databases, organizational culture and organizational capabilities in an organization (Firmansyah, 2017). Researchers use content analysis by giving a value of 1 (one) if the Bank discloses green structural capital indicators and a value of 0 (zero) if not. Green structural capital in this study is measured by the formula developed by Yusoff et al., (2019) as follows:

$$GSC = \frac{Exposed\ Indicator}{8}$$

Information:

GSC : Green Structural Capital
Green Relational Capital

Green relational capital is a backup of the company's interactive relationship with customers, suppliers, network members, and partners for environmental management and green innovation (Firmansyah, 2017). Researchers use content analysis by giving a value of 1 (one) if the Bank discloses green relational capital indicators and a value of 0 (zero) if not. Green relational capital in this study is measured by the formula developed by Yusoff et al., (2019) as follows:

\[ GRC = \frac{Exposed \ Indicator}{5} \]

Information:
GRC : Green Relational Capital

Green Accounting

Green accounting is the application of the accounting process by including costs used for environmental preservation or environmental welfare. Green accounting in this study uses the formula developed by Mustofa et al., (2020) by looking at environmental costs disclosed by companies including environmental operational costs, product recycling costs and environmental development and research costs in annual reports and sustainability reports. This study measures green accounting as follows

\[ GA = \frac{Exposed \ Indicator}{3} \]

Information:
GA : Green Accounting

Moderation Variable

Corporate governance

Corporate governance is the implementation of a professional and governance can direct the effective and efficient use of company resources which is a shared responsibility related to the use of resources to achieve the company's vision and mission (Kesuma et al., 2017). Researchers use content analysis by giving a value of 1 (one) if the Bank discloses the implementation of corporate governance indicators and a value of 0 (zero) otherwise. In this study, the corporate governance index is formulated as follows:

\[ CG = \frac{Exposed \ Indicator}{26} \]

Information:
cg = Corporate governance

Dependent Variable

The Implementation of Sustainable Finance

The implementation of sustainable finance is measured using an index developed by the United Nation Environment Program Financial Initiative (UNEP FI). Researchers use content analysis by giving a value of 1 (one) if the bank implements indicators of implementing sustainable finance and a value of 0 (zero) if the Bank does not implement indicators of implementing sustainable finance. The formula for measuring sustainable finance is as follows:

\[ SF = \frac{Indicator \ implemented}{19} \]

Information:
SF = Sustainable Finance

Control Variables
Profitability

Profitability ratios describe the level of success of operational activities and company effectiveness based on the level of profit generated or achieved by the company. The selection of profitability as a control variable is because in previous research, profitability has a positive effect on corporate social responsibility (Fauji & Wahyuni, 2020). Profitability can be calculated using a formula that has been developed by several previous researchers (Murwaningsari & Rachmawati, 2017; Noviani et al., 2017; Ramadhani & Mashariono, 2017) in this study can be calculated using the following formula:

$$\text{ROA} = \frac{Laba_bersih_setelah_pajak}{Total\ Aset} \times 100\%$$

Information:
ROA = Return on Assets

Company Size

Company size is a measure that shows the size of a company, including total sales, average level of sales, and total assets (Widjaja, 2009). The use of company size as a control variable is because in several previous studies, company size has a positive effect on sustainable finance and company size has a positive effect on corporate social responsibility (Ani & Fredy, 2017; Qisam, 2017). Company size can be calculated using the formula that has been developed by Qisam et al., (2017) and Rachmawati (2019). In this study it can be calculated using the following formula:

$$\text{CS} = \ln \text{Total Assets}$$

Information:
CS = Firm Size
$\ln$ = natural logs

Company Age

Company age is an important attribute of company performance, because it explains the experience of the company in managing the company. The use of firm age as a control variable is due to several previous studies, firm age has a positive effect on corporate social responsibility (Pare et al., 2017; Prasetyoningrum, 2019). In this study, the age of the company is calculated using the following formula:

$$\text{CA} = \text{Year of research} - \text{The year the company was listed on the IDX}$$

Information:
ca = Company Age

Leverage

Leverage is a description of the extent to which the amount of own capital is guaranteed for the debt of a company (Umiyati & Baiquni, 2018). The use of leverage as a control variable is because several previous studies stated that leverage has a negative effect on Islamic social reporting (Riyanti & Barkhowa, 2021). Leverage in this study uses the following formula:

$$\text{DER} = \frac{Total\ liabilitas}{Total\ Ekuitas} \times 100\%$$

Information:
DER = Debt to Equity Ratio

Data analysis method

Multiple linear regression analysis in this study used the Moderating Regression Analysis (MRA) method in analyzing the research results. The regression equation model to be examined is as follows:

$$\text{SF} = a + b1\text{GHC} + b2\text{GSC} + b3\text{GRC} + b4\text{GA} + b5\text{GHC*CG} + b6\text{GSC*CG} +$$
\[
\begin{align*}
\text{b7GRC} &* \text{CG} + \text{b8GA} &* \text{CG} + \text{b9CP} + \text{b10CS} + \text{b11CA} + \text{b12CL} + e \\
\end{align*}
\]

Information:
\begin{itemize}
  \item \(a = \text{Constant}\)
  \item \(\text{SF} = \text{Sustainable Finance}\)
  \item \(\text{GHC} = \text{Green Human Capital}\)
  \item \(\text{GSC} = \text{Green Structural Capital}\)
  \item \(\text{GRC} = \text{Green Relational Capital}\)
  \item \(\text{GA} = \text{Green Accounting}\)
  \item \(\text{cg} = \text{Mechanism of Corporate Governance}\)
  \item \(\text{CP} = \text{Profitability}\)
  \item \(\text{CS} = \text{Firm Size}\)
  \item \(\text{ca} = \text{Company Age}\)
  \item \(\text{CL} = \text{leverage}\)
  \item \(e = \text{Errors}\)
\end{itemize}

RESULTS AND DISCUSSION

This study used purposive sampling in determining the number of samples, as shown in the table below:

**Table 1. Calculation of Research Samples**

<table>
<thead>
<tr>
<th>No.</th>
<th>Information</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Banking listed on the Indonesia Stock Exchange from 2016 to 2020</td>
<td>45</td>
</tr>
<tr>
<td>2.</td>
<td>Companies whose annual reports cannot be accessed during the study period</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Banking registered after January 1, 2016 because it was just an IPO, so the age of the company is still 0 (zero) in 2016</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>Banking that does not provide overall information related to research variables</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Total Samples (30x5)</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Outliers Data</td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>Final Sample</td>
<td>149</td>
</tr>
</tbody>
</table>

Source: Processed data, 2021

Descriptive Statistics

**Table 2. Descriptive Statistics Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mark Average</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHC</td>
<td>149</td>
<td>0.200</td>
<td>1.000</td>
<td>0.508</td>
<td>0.254</td>
</tr>
<tr>
<td>GSC</td>
<td>149</td>
<td>0.000</td>
<td>0.833</td>
<td>0.322</td>
<td>0.275</td>
</tr>
<tr>
<td>GRC</td>
<td>149</td>
<td>0.000</td>
<td>1.000</td>
<td>0.495</td>
<td>0.337</td>
</tr>
<tr>
<td>GA</td>
<td>149</td>
<td>0.000</td>
<td>0.667</td>
<td>0.078</td>
<td>0.166</td>
</tr>
<tr>
<td>cg</td>
<td>149</td>
<td>0.769</td>
<td>1.000</td>
<td>0.944</td>
<td>0.043</td>
</tr>
<tr>
<td>SF</td>
<td>149</td>
<td>0.053</td>
<td>1.000</td>
<td>0.526</td>
<td>0.291</td>
</tr>
<tr>
<td>CP</td>
<td>149</td>
<td>-0.112</td>
<td>0.040</td>
<td>0.010</td>
<td>0.023</td>
</tr>
<tr>
<td>CS</td>
<td>149</td>
<td>7.0532E+6</td>
<td>1.512E+15</td>
<td>31.272</td>
<td>2.266</td>
</tr>
<tr>
<td>CL</td>
<td>149</td>
<td>0.981</td>
<td>16.079</td>
<td>6.033</td>
<td>2.570</td>
</tr>
<tr>
<td>ca</td>
<td>149</td>
<td>1</td>
<td>38</td>
<td>17.342</td>
<td>8.289</td>
</tr>
</tbody>
</table>

Source: Processed data, 2021

Based on table 2. The descriptive statistical analysis above, the conclusions that can be drawn are as follows:

1) Green Human Capital

Based on the results of descriptive statistics, it can be seen that the green human capital variable has a minimum value of 0.2 and a maximum value of 1. Meanwhile, the average value and standard deviation obtained in this variable are 0.508 and 0.254. The standard deviation value which is smaller than the mean value indicates that the data distribution of
the green human capital variable does not have a large enough gap from the lowest and highest green human capital ratios or is referred to as homogeneous data.

2) Green Structural Capital
Based on the results of descriptive statistics, it can be seen that the green structural capital variable has a minimum value of 0 and a maximum value of 0.833. Meanwhile, the average value and standard deviation obtained in this variable are 0.322 and 0.255. The standard deviation value which is smaller than the average value indicates that the distribution of data from the green structural capital variable does not have a large enough gap from the lowest and highest green structural capital ratios or is referred to as homogeneous data.

3) Green Relational Capital
Based on the results of descriptive statistics, it can be seen that the green relational capital variable has a minimum value of 0 and a maximum value of 1. Meanwhile, the average value and standard deviation obtained in this variable are 0.495 and 0.337. The standard deviation value which is smaller than the mean value indicates that the data distribution of the green relational capital variable does not have a large enough gap from the lowest and highest green relational capital ratios or is referred to as homogeneous data.

4) Green Accounting
Based on the results of descriptive statistics, it can be seen that the green accounting variable has a minimum value of 0 and a maximum value of 0.667. Meanwhile, the average value and standard deviation obtained in this variable are 0.078 and 0.166. The standard deviation that is greater than the mean value indicates that the data used in the green accounting variable has a large data distribution, so that the data deviation can be said to be not good. This shows that the application of green accounting is still low and the distribution of green accounting data can be said to be heterogeneous data.

5) Corporate governance
Based on the results of the descriptive statistics, it can be seen that the corporate governance variable has a minimum value of 0.769 and a maximum value of 1. Meanwhile, the average value and standard deviation obtained in this variable are 0.944 and 0.04. The standard deviation value which is smaller than the mean value indicates that the data distribution of the corporate governance variable does not have a large enough gap from the lowest and highest corporate governance ratios or is referred to as homogeneous data.

6) Sustainable Finance
Based on the results of descriptive statistics, it can be seen that the variable sustainable finance has a minimum value of 0.053 and a maximum value of 1. Meanwhile, the average value and standard deviation obtained for this variable are 0.526 and 0.291. The standard deviation value which is smaller than the average value indicates that the distribution of data from sustainable finance variables does not have a large enough gap from the lowest and highest sustainable financial ratios or is referred to as homogeneous data.

7) Profitability
Based on the results of descriptive statistics, it can be seen that the profitability variable has a minimum value of -0.112 and a maximum value of 0.04. Meanwhile, the average value and standard deviation obtained in this variable are 0.010 and 0.023. The standard deviation that is greater than the mean value indicates that the data used in the profitability variable has a large data distribution, so that the data deviation can be said to be not good. This shows that profitability data can be said to be heterogeneous data.

8) Company Size
Based on the results of descriptive statistics, it can be seen that the company size variable has a minimum value of IDR 70,532,000,000 and a maximum value of IDR 1,511,804,628,000,000. Meanwhile, the average value and standard deviation obtained in
this variable are 31.272 and 2.266. The standard deviation value which is smaller than the mean value indicates that the data distribution of the company size variable does not have a large enough gap from the ratio of the lowest and highest company size or is referred to as homogeneous data.

9) Leverage
Based on the results of descriptive statistics, it can be seen that the leverage variable has a minimum value of 0.981 and a maximum value of 16.079. Meanwhile, the average value and standard deviation obtained in this variable are 6.033 and 2.570. The standard deviation value which is smaller than the average value indicates that the distribution of data from the leverage variable does not have a large enough gap from the lowest and highest leverage ratios or is referred to as homogeneous data.

10) Company Age
Based on the results of descriptive statistics, it can be seen that the firm age variable has a minimum value of 1 year and a maximum value of 38 years. Meanwhile, the average value and standard deviation obtained in this variable are 17.342 and 8.289. The standard deviation value which is smaller than the average value indicates that the data distribution of the firm age variable does not have a large enough gap from the lowest and highest firm age ratios or is referred to as homogeneous data.

Classic assumption test
This study has carried out classical assumption tests, including normality tests, heteroscedasticity tests, multicollinearity tests and autocorrelation tests. It can be concluded that, the data in this study were normally distributed, there were no heteroscedasticity disorders and passed the autocorrelation test. However, there is multicollinearity disorder caused by the influence of the moderating variable. Multicollinearity problems in this study are ignored because multicollinearity problems arise as a result of interactions with moderating variables (Ghozali, 2016).

Hypothesis testing

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Sig (Two Tailed)</th>
<th>Sig (One Tailed)</th>
<th>predictions</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.116</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHC</td>
<td>1.772</td>
<td>0.020</td>
<td>0.010*</td>
<td>Positive</td>
<td>H1 Accepted</td>
</tr>
<tr>
<td>GSC</td>
<td>4.437</td>
<td>0.010</td>
<td>0.005*</td>
<td>Positive</td>
<td>H2 Accepted</td>
</tr>
<tr>
<td>GRC</td>
<td>-1.855</td>
<td>0.180</td>
<td>0.090</td>
<td>Positive</td>
<td>H3 Rejected</td>
</tr>
<tr>
<td>GA</td>
<td>2.916</td>
<td>0.154</td>
<td>0.077*</td>
<td>Positive</td>
<td>H4 Accepted</td>
</tr>
<tr>
<td>GHC*CG</td>
<td>-2.289</td>
<td>0.058</td>
<td>0.029</td>
<td>Strengthen</td>
<td>H5 Rejected</td>
</tr>
<tr>
<td>GSC*CG</td>
<td>-5.770</td>
<td>0.017</td>
<td>0.009</td>
<td>Strengthen</td>
<td>H6 Rejected</td>
</tr>
<tr>
<td>GRC*CG</td>
<td>3.066</td>
<td>0.154</td>
<td>0.077</td>
<td>Strengthen</td>
<td>H7 Rejected</td>
</tr>
<tr>
<td>GA*CG</td>
<td>-2.402</td>
<td>0.169</td>
<td>0.085</td>
<td>Strengthen</td>
<td>H8 Rejected</td>
</tr>
<tr>
<td>CP</td>
<td>0.834</td>
<td>0.206</td>
<td>0.103</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>0.005</td>
<td>0.032</td>
<td>0.016*</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>CL</td>
<td>-0.006</td>
<td>0.095</td>
<td>0.048*</td>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>0.000</td>
<td>0.080</td>
<td>0.040*</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>F test</td>
<td>50.872</td>
<td></td>
<td>0.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R Squared</td>
<td>0.802</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: 2021 data processing

Note: *Sig<10%, GHC: Green Human Capital, GSC: Green Structural Capital, GRC: Green Relational Capital, GA: Green Accounting, CG: Corporate Governance, SF:

Determination coefficient test

Based on table 3, the adjusted R square value is 0.802. This means that the ability of the independent variable to explain the variance of the dependent variable is 80.2%, while 19.8% is influenced by other variables not included in this study.

F test

Based on table 3, it can be seen that the value of Sig 0.000 <0.05, so it can be concluded that all independent variables jointly affect the Implementation of Sustainable Finance in Banking listed on the Indonesia Stock Exchange for the 2016-2020 period.

t test

Based on table 3, the results of hypothesis testing can be concluded that:

H1: Green Human Capital on Sustainable Finance

The result of the data processing of the green human capital coefficient is 1.772. That is, the theory test which states that there is a positive influence between green human capital on sustainable finance, is proven (passes the theory test), so that the analysis can be continued into statistical tests. From the statistical test results, the p-value is 0.010 (0.010 <0.10). Thus, it can be concluded that H₀ is rejected and H1 is accepted.

H2: Green Human Capital on Sustainable Finance

The results of the data processing of the coefficient of green structural capital is 4.437. That is, the theory test which states that there is a positive effect between green structural capital on sustainable finance, is proven (passes the theory test), so that the analysis can be continued into statistical tests. From the statistical test results, the p-value is 0.005 (0.005 <0.10). Thus, it can be concluded that H₀ is rejected and H2 is accepted.

H3: Green Relational Capital on Sustainable Finance

The result of data processing is the green relational capital coefficient of -1.855. This means that the theory test which states that there is a positive influence between green relational capital on sustainable finance is not proven, so that the magnitude of the p-value for this variable is not analyzed further. Based on the results of the analysis it can be concluded that H₀ is accepted and H3 is rejected.

H4: Green Accounting on Sustainable Finance

The results of data processing of the green accounting coefficient are 2.916. That is, the theory test which states that there is a positive effect between green accounting on sustainable finance, is proven (passes the theory test). So that the analysis can be continued into statistical tests. From the statistical test results, the p-value was 0.077 (0.077 <0.10). Thus, it can be concluded that H₀ is rejected and H4 is accepted.

H5: Corporate Governance Mechanisms in Strengthening Green Human Capital on Sustainable Finance

The results of the data processing of the interaction coefficient between green human capital and corporate governance mechanisms is -2.289. This means that the theory test which states that corporate governance mechanisms strengthen the positive influence of green human capital on sustainable finance is not proven. So that the magnitude of the p-value for this variable is not analyzed further. Based on the results of the analysis it can be concluded that H₀ is accepted and H5 is rejected.

H6: Corporate Governance Mechanisms in Strengthening Green Structural Capital on Sustainable Finance
The results of the data processing of the interaction coefficient between green structural capital and corporate governance mechanisms is -5.770. That is, the theory test which states that corporate governance mechanisms strengthen the positive influence of green structural capital on sustainable finance is not proven. So that the magnitude of the p-value for this variable is not analyzed further. Based on the results of the analysis it can be concluded that H₀ is accepted and H₆ is rejected.

**H₇: Corporate Governance Mechanisms in Strengthening Green Relational Capital on Sustainable Finance**

The results of the data processing of the interaction coefficient between green relational capital and corporate governance mechanisms is 3.066. That is, the theory test which states that corporate governance mechanisms strengthen the positive influence of green relational capital on sustainable finance is proven. However, in independent testing, the green relational capital variable has no positive effect, so it can be concluded that H₀ is accepted and H₇ is rejected.

**H₈: Corporate Governance Mechanisms in Strengthening Green Accounting on Sustainable Finance**

The result of the data processing of the interaction coefficient between green accounting and corporate governance mechanisms is -2.402. That is, the theory test which states that corporate governance mechanisms strengthen the positive influence of green accounting on sustainable finance is not proven, so that the magnitude of the p-value for this variable is not analyzed further. Based on the results of the analysis it can be concluded that H₀ is accepted and H₇ is rejected.

**Profitability on Sustainable Finance**

The result of data processing is the profitability coefficient of 0.834. That is, the theory test which states that there is a positive effect between profitability on sustainable finance is proven (passes the theory test), so that the analysis can be continued into statistical tests. From the statistical test results, the p-value is 0.103 (0.103 > 0.10). Thus, it can be concluded that H₀ is accepted and Ha is rejected.

**Company Size on Sustainable Finance**

The result of the data processing of the coefficient of firm size is 0.005. That is, the theory test which states that there is a positive influence between company size on sustainable finance, is proven (passes the theory test), so that the analysis can be continued into statistical tests. From the statistical test results, the p-value is 0.016 (0.016 <0.10). Thus, it can be concluded that H₀ is rejected and Ha is accepted.

**Leverage on Sustainable Finance**

The results of data processing leverage coefficient -0.006. That is, the theory test which states that there is a negative effect between leverage on sustainable finance, is proven (passes the theory test), so that the analysis can be continued into statistical tests. From the statistical test results, the p-value is 0.048 (0.048 <0.10). Thus, it can be concluded thatH₀ was rejected and Ha was accepted.

**Company Age on Sustainable Finance**

The result of the data processing of the firm age coefficient is 0.000. That is, the theory test which states that there is a positive influence between firm age on sustainable finance is proven (the theory test is passed), so that the analysis can be continued into statistical tests. From the statistical test results, the p-value is 0.040 (0.040 <0.10). Thus, it can be concluded thatH₀ was rejected and Ha was accepted.

**DISCUSSION**

**The Effect of Green Human Capital on the Implementation of Sustainable Finance**

The results of the data processing of the interaction coefficient between green structural capital and corporate governance mechanisms is -5.770. That is, the theory test which states that corporate governance mechanisms strengthen the positive influence of green structural capital on sustainable finance is not proven. So that the magnitude of the p-value for this variable is not analyzed further. Based on the results of the analysis it can be concluded that H₀ is accepted and H₆ is rejected.
The results testing of the first hypothesis show that green human capital has a positive and significant effect on the implementation of sustainable finance, so that the first hypothesis is accepted. This finding is consistent with a study conducted by Josephine et al., (2020) who found results that green human capital has a positive effect on business sustainability. And in line with research conducted by Liao et al., (2021) who found that green human capital has a positive effect on corporate social responsibility. This is in accordance with the first hypothesis which states that green human capital is considered a vital asset for any company. In addition, the descriptive statistical analysis also states that the data obtained is homogeneous, so it is likely to have a significant effect.

Better employee performance can have a direct impact on productivity, which can improve both profitability and corporate image (Ali et al., 2021). In general, green human capital is able to improve overall company performance (Allameh, 2018). In addition, green human capital is a type of human capital that is adopted to deal directly with the environment, which is simply explained as the total skills, innovation, ability, capacity and responsibility of workers in relation to environmental guarantees. Based on the resource-based view of theory, green human capital is able to provide a competitive advantage for companies in the form of developing green innovations produced by companies (Yong et al., 2019).

**The Effect of Green Structural Capital on the Implementation of Sustainable Finance**

The results testing of the second hypothesis show that green structural capital has a positive and significant effect on the implementation of sustainable finance. This finding is consistent with research conducted by Yusoff et al., (2019) found that green structural capital has a positive effect on business sustainability. Furthermore, it is supported by the results of Firmansyah (2017) that green structural capital has a positive effect on green competitive advantage. In line with Ali et al., (2021) who found that green structural capital has an effect on green innovation. This is in accordance with the second hypothesis which states that the main goal of a company is to maximize company profits. In addition, the descriptive statistical analysis also states that the data obtained is homogeneous, so it is likely to have a significant effect. In the context of green structural capital, companies can jointly contribute to social and environmental goals by integrating their social responsibility as a strategic investment into their core business strategy (Liao et al., 2021).

This result is reinforced by According to Jardon and Dasilva (2017), environmental practices by companies are not only related to green human capital, but investment in green structural capital allows companies to avoid environmental damage and reduce the burden of paying fines that companies have polluted the environment (Firmansyah, 2017). In addition, companies that have strong structural capital will receive support from a work environment that will motivate employees to continue learning new things in developing and addressing climate challenges. Based on the resource-based view of theory, green structural capital enables companies to generate a positive environment, employees with good welfare, generate profits for the company and are able to support companies to place their role in supporting the implementation of sustainable finance (Yusoff et al., 2019).

**The Effect of Green Relational Capital on the Implementation of Sustainable Finance**

The results of testing the third hypothesis show that green relational capital has no positive effect on the implementation of sustainable finance. This finding is contrary to research conducted by Yussof et al., (2019) found that green relational capital has a positive effect on business sustainability. However, this research is supported by Firmansyah (2017) who found that green relational capital has no effect on green organizational identity. This result is contrary to the resource-based view of theory which states that stable green collaboration allows for environmental awareness among partners which will then be able to
minimize the impact on the environment and will increase the company's competitive advantage (Dickel et al., 2018). However, these results indicate that green relational capital has not been able to have an impact on the implementation of sustainable finance. It is possible that banks in Indonesia are already familiar with environmental protection and environmental management, but still consider these matters not to be the company's top priority in long-term organizational sustainability (Firmansyah, 2017). Furthermore, this is also made possible by the lack of supplier and customer support for environmental protection which will result in failure to achieve the company's environmental objectives.

In addition, this is also due to the fact that as a developing country, Indonesia still does not prioritize environmental factors in the company's vision, mission and goals (Firmansyah, 2017). Supported by external parties such as investors and strategic partners of companies that have not yet implemented elements of environmental protection in their operational activities. Even though Indonesia already has regulations related to environmental protection such as the Limited Liability Company Law (UU PT) No 40/2007 concerning Social and Environmental Responsibility, this does not make these regulations the main concern of companies/organizations. The effect of green relational capital on the implementation of sustainable finance in this study is also due to companies in the service sector who feel that they do not have a negative impact on the environment because there is no significant waste generated as is the case with manufacturing companies.

The Effect of Green Accounting on the Implementation of Sustainable Finance

The results of testing the third hypothesis show that green accounting has an effect on the implementation of sustainable finance. This finding is in line with research conducted by Mustofa et al., (2020) who found that green accounting has a positive effect on corporate social responsibility disclosure. In line with the research of Wahyuni et al., (2019) who found that green accounting has an effect on environmental performance. This states that companies that carry out environmental management well will disclose information related to the environment better which will improve the implementation of sustainable finance (Goddess, 2020). This is in line with stakeholder theory which states that a company must meet the needs of its stakeholders. The application of green accounting is used as a form of communication and accountability in order to gain, maintain and or increase the trust of stakeholders.

In addition, the costs contained in green accounting disclosures such as environmental operational costs, product recycling costs as well as environmental development and research costs are costs that have the aim of increasing stakeholder confidence that the company has been serious about paying attention to the various wastes generated from its operational activities (Mustofa et al., 2020).

The Role of Corporate Governance in Moderating the Effect of Green Human Capital on the Implementation of Sustainable Finance

The results of testing the fifth hypothesis indicate that corporate governance mechanisms are not able to strengthen the effect of green human capital on the implementation of sustainable finance, so that the fifth hypothesis is rejected. This finding is contrary to research conducted by Mukhtaruddin et al., (2018) who found the results that corporate governance has a positive effect on corporate social responsibility disclosure. In addition, this finding is also contrary to Josephine et al., (2020) found that green human capital has a positive effect on business sustainability. However, these results are supported by Yusoff et al., (2019) who found that Green human capital has no effect on business sustainability. In line with Firmansyah (2017) who found that green human capital has no effect on green competitive
advantage. In addition, supported by Qisam et al., (2017) who found that corporate governance has no effect on Islamic social reporting.

This result is in contrast to agency theory which states that the better the mechanism of corporate governance in a bank, the greater the oversight of the company so that the company's disclosures are wider, including disclosures regarding corporate social responsibility (Qisam, 2017). This shows that the failure of the corporate governance mechanism in strengthening the influence of green human capital on the implementation of sustainable finance of a company is due to the existence of a corporate governance mechanism in a company that has not been able to play a role in carrying out the oversight function of managerial performance, including in disclosing its social responsibility (Handajani, 2019). In addition, it is possible that there are no specific regulations that require companies to have a sustainability report in accordance with the Circular of the Financial Services Authority of the Republic of Indonesia Number 16/SEOJK.04/2021 Concerning the Form and Content of Annual Reports of Issuers or Public Companies which states that submission of sustainability reports must be submitted simultaneously with submission of annual reports. So that the company has not been able to intensively carry out reports relating to environmental aspects and participate in encouraging the implementation of sustainable finance.

The Role of Corporate Governance in Moderating the Effect of Green Structural Capital on the Implementation of Sustainable Finance

The results of testing the sixth hypothesis indicate that corporate governance mechanisms are unable to strengthen the effect of green structural capital on the implementation of sustainable finance, so the sixth hypothesis is rejected. This finding is contrary to research by Yusoff et al., (2019) found that green structural capital has a positive effect on business sustainability. In addition, this result is also contrary to Ani and Fredy (2017) found that one of the governance mechanisms that is proxied by the size of the Board of Directors has a significant effect on sustainable finance disclosure. However, these results are supported by the research of Josephine et al., (2020) who found that green structural capital has no effect on business sustainability. This result is also supported by Handajani (2019) who found that corporate governance mechanisms have no effect on green banking.

These results are contradictory with the agency theory which states that supervision is carried out to ensure that Bank management does not only disclose information that has a positive impact, but also discloses various information that has a negative impact in order to increase information transparency (Pare et al., 2017). This shows that the role of corporate governance mechanisms has not been able to strengthen the effect of green structural capital on the implementation of sustainable finance because the existence of corporate governance in a company tends to comply with the Financial Services Authority Regulation Number 55/POJK.03/2016 concerning Implementation of Governance for Commercial Banks. So that its existence has not been able to maximally encourage the company to realize real action for the environment around the company (Handajani, 2019). In addition, even though the average value in the descriptive statistics shows a figure above 50%, in reality there is no comprehensive support for the implementation of sustainable finance. Supported by data submitted by issuers through the minutes of meetings of the Board of Commissioners and Directors in their annual reports, it shows that there are still many companies that have not discussed specifically related to sustainable financial action plans.

The Role of Corporate Governance in Moderating the Effect of Green Relational Capital on the Implementation of Sustainable Finance

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The results of testing the seventh hypothesis indicate that corporate governance mechanisms are not able to strengthen the influence of green relational capital on the implementation of sustainable finance, so the seventh hypothesis is rejected. This finding is contrary to research by Yusoff et al., (2019) found that green relational capital has a positive effect on business sustainability. This finding is also contrary to the research of Bose et al., (2018) found that corporate governance mechanisms have a positive effect on green banking. However, these results are supported by Firmansyah (2017) who found that green relational capital has a positive effect on green organizational identity. This result is also supported by the research of Pare et al., (2017) who found one element of corporate governance as measured by the composition of the Board of Commissioners has no effect on the disclosure of corporate social responsibility.

This shows that the existence of corporate governance has not been able to strengthen the influence of green relational capital on the implementation of sustainable finance. It is possible that even though the average value on the results of the descriptive statistical analysis shows that the implementation of corporate governance is above 50%, this has not been able to become a benchmark that the existence of a company's corporate governance mechanism will encourage companies to determine with whom the company has a relationship with its strategic partners, especially in selecting partners who are already environmentally oriented (Pare et al., 2017). Contrary to agency theory which states that the role of corporate governance is to oversee the management of the company and is responsible for determining whether management fulfills its responsibilities in developing and implementing controls in the company. This result is also supported by data submitted by issuers through the minutes of meetings of the Board of Commissioners and Board of Directors in their annual reports showing that companies have not specifically discussed sustainable financial action plans.

**The Role of Corporate Governance in Moderating the Effect of Green Accounting on the Implementation of Sustainable Finance**

The results of testing the eighth hypothesis show that corporate governance mechanisms are not able to strengthen the effect of green accounting on the implementation of sustainable finance, so the eighth hypothesis is rejected. These results are in contrast to the research of Mustofa et al., (2020) which found that green accounting has a positive effect on corporate social responsibility disclosure. This finding is also contrary to the research of Bose et al., (2018) found that corporate governance mechanisms have a positive effect on green banking. However, these results are supported by Dewi (2020) and Mariani (2017) who found that green accounting has no effect on corporate social responsibility. This result is also supported by Handajani (2019) who found that corporate governance mechanisms have no effect on green banking.

This result is in contrast to agency theory which states that the existence of corporate governance aims to provide oversight to minimize information asymmetry, one of which is monitoring environmental and social performance (Handajani, 2019). This shows that the existence of corporate governance has not been able to strengthen the effect of green accounting on the implementation of sustainable finance because the existing corporate governance mechanism in a company only supervises mandatory disclosure in the company's annual report, and has not focused on voluntary disclosure (Handajani, 2019). Therefore, the existence of a corporate governance mechanism has not been able to encourage companies to increase disclosure related to their environmental costs which should be able to increase the role of the Bank in implementing sustainable finance. In addition, even though the average value in the descriptive statistics shows a figure above 50%, in reality there is no support for the implementation of sustainable finance. This is also reflected in the data submitted by
issuers through the minutes of meetings of the Board of Commissioners and Directors in their annual reports showing that companies have not discussed their roles specifically related to sustainable financial action plans.

CONCLUSION

Based on the results of the analysis and discussion described in the previous chapter, the conclusions of this study are as follows: (1) Green human capital have a positive effect on the implementation of sustainable finance in banks listed on the Indonesia Stock Exchange in 2016-2020, (2) Green structural capital have a positive effect on the implementation of sustainable finance in banks listed on the Indonesia Stock Exchange in 2016-2020, (3) Green relational capital have no effect on the implementation of sustainable finance in banks listed on the Indonesia Stock Exchange in 2016-2020, (4) Green accounting have a positive effect on the implementation of sustainable finance in banks listed on the Indonesia Stock Exchange in 2016-2020, (5) The role of corporate governance has not been able to moderate the effect of green structural capital on the implementation of sustainable finance in banks listed on the Indonesia Stock Exchange in 2016-2020, (6) The role of corporate governance has not been able to moderate the effect of green relational capital on the implementation of sustainable finance in banks listed on the Indonesia Stock Exchange in 2016-2020, (7) The role of corporate governance has not been able to moderate the effect of green accounting on the implementation of sustainable finance in banks listed on the Indonesia Stock Exchange in 2016-2020, and (8) There are several control variables that influence the implementation of sustainable finance including company size, leverage and company age. while profitability has no effect on the implementation of sustainable finance in banks listed on the Indonesia Stock Exchange in 2016-2020.

REFERENCES


Pengaruh Green Accounting Dan Dividend Payout Ratio Terhadap Firm Size Melalui Csr Sebagai Variabel Intervening.


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