

## The Effect of Green Accounting and Intellectual Capital on Firm Value

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### ABSTRACT

This study examines the influence of green accounting and intellectual capital on firm value, focusing on mining companies listed on the Indonesia Stock Exchange (IDX) from 2021 to 2023. Using purposive sampling, 112 companies meeting specific criteria were selected as the sample. Green accounting was measured by ISO 14001 certification, intellectual capital was assessed using the Value-Added Intellectual Coefficient (VAIC), and firm value was evaluated through the Price-to-Book Value (PBV) ratio. The findings reveal that neither green accounting nor intellectual capital has a significant impact on firm value in the observed context. The results suggest that, within Indonesia's mining sector, environmental certification and intellectual capital may not yet be key drivers of firm valuation. This could indicate a need for stronger regulatory frameworks or market incentives to enhance the financial relevance of sustainability and intangible assets. Future research could investigate additional variables, such as corporate governance or market perceptions, to gain a deeper understanding of these dynamics.

**Keywords:** Firm Value; Green Accounting; Intellectual Capital; ; ISO 14001; Price-to-Book-Value

### INTRODUCTION

Social and environmental issues are currently attracting significant attention in Indonesia, one of which concerns the mining sector. Many foreign investors are seeking partners for more environmentally friendly mining projects. However, government policies during the Joko Widodo era have tended to relax regulations in the mining sector (Pristiandaru, 2023). One example is the removal of coal ash (fly ash and bottom ash/FABA) from the list of hazardous and toxic waste (B3) through Government Regulation No. 22 of 2021 concerning the Implementation of Environmental Protection and Management. In Appendix XIV of the regulation, FABA is now classified as non-B3 waste (Arlinta, 2021). According to the Head of the Pollution and Environmental Damage Control Division at the Indonesian Center for Environmental Law (ICEL), this decision has the potential to cause various negative impacts. With FABA no longer considered hazardous waste, its usage may disregard its potential pollutants, making it difficult to ensure safe utilization. Furthermore, this regulatory relaxation could endanger public health and the environment. The components in coal ash are carcinogenic and toxic, posing risks to humans, fish, aquatic biota, and wildlife. The government should enhance supervision and enforce strict sanctions to minimize exposure risks, rather than loosening regulations that could worsen the situation (Arlinta, 2021).

Due to increasing social pressure regarding environmental degradation, more investors are becoming concerned about their reputations when doing business with irresponsible partners (Pristiandaru, 2023). Data from the Central Statistics Agency (BPS) show that foreign direct investment (FDI) in the mining sector decreased in 2023, dropping from USD 5,145 million in 2022 to USD 4,715

million in 2023 (Badan Pusat Statistik, 2024). This reflects investors' concerns over the impact of regulatory changes and environmentally unfriendly mining practices.

Therefore, improving a company's value through strong financial performance must be balanced with better environmental management. Companies need to innovate by implementing environmentally friendly approaches that not only improve relationships with communities and stakeholders but also enhance the company's positive image. Therefore, environmental preservation efforts must be supported through the implementation of green accounting. This is based on signaling theory, which posits that if the information conveyed has positive value, the company expects a favorable response from the market. Thus, proper implementation of green accounting can produce relevant information, which may ultimately influence stock prices and enhance firm value (Gantino et al., 2023). This is consistent with research conducted by Agustia et al., (2019) Al-Dhaimesh, (2020) dan Wahyuni et al., (2019), which found that green accounting has an impact on firm value. Conversely, other studies have shown that green accounting does not affect firm value (Fernando et al., 2024; Gantino et al., 2023; Jayanti & Romli, 2023; Sukmadilaga et al., 2023).

In addition to engaging in green innovation activities, companies also need to pursue other innovations necessary to implement science and technology (Gantino et al., 2023). This knowledge and technology-based capital is known as Intellectual Capital (IC) (Ulum et al., 2016). The human ecosystem within an entity can provide competitive aspects in the form of intellectuality, utilization of data and information, and experience that contribute to corporate welfare (Suzan & Ramadhani, 2023). Human resources and management capital must be optimized to support efforts in enhancing company performance and firm value optimally (Ana et al., 2021). Several studies have shown that the application of Intellectual Capital affects firm value (Suzan & Ramadhani, 2023; Gantino et al., 2023; Ana et al., 2021; Pratama et al., 2019). On the other hand, other research suggests that the application of Intellectual Capital does not affect firm value (Ekaputra et al., 2020; Lestari & Sapitri, 2016).

The novelty of this research, when compared to Gantino et al., (2023), lies in the different sectors being studied. The previous study focused on the consumer goods and automotive sectors, while this research focuses on the mining sector. In addition, this study utilizes data from 2021 to 2023, as 2021 marked a regulatory change through Government Regulation No. 22 of 2021, which removed coal ash (FABA) from the list of hazardous waste (B3). This study also does not adopt all the variables used in the previous research. The research questions posed in this study are: Does green accounting affect firm value? Does intellectual capital affect firm value? Furthermore, do green accounting and intellectual capital simultaneously affect firm value? This research is expected to provide insights for companies to enhance sustainable practices to maximize firm value. It also aims to contribute both theoretically and practically to the development of knowledge and environmentally conscious business policy behavior.

## **Signalling Theory**

Signalling Theory, according to Spence (2002), is a theory that seeks to resolve information problems between shareholders and company management. This process provides a clear overview, records, and essential information regarding the company's sustainability. The effectiveness of the information conveyed has a significant influence on the decisions made by external parties. Information disclosed to the public serves as a signal to stakeholders. When the information presented has a positive value, the company expects a favorable market reaction. Market participants, such as investors, will then analyze this information (Hartono, 2013). Based on this theory, companies provide positive signals to investors.

A positive market reaction becomes a medium through which companies signal superior quality or competitive advantage. In this context, the implementation of green accounting or environmental management accounting, if appropriately done, can generate relevant information, thereby potentially influencing the company's stock price and increasing its firm value.

### **Resource-Based Theory (RBT)**

Resource-Based Theory (RBT), according to Barney (1991) RBV refers to the creation of sustainable advantages from the company's ability to organize valuable, rare, difficult to imitate, and effectively organized resources. (Albertini & Berger-Remy, 2019) On the other hand, RBT is a theory created to analyze the competitive advantage of a company; the focus is on excellence in knowledge or an economy that relies on intangible assets (Albertini & Berger-Remy, 2019). According to Ulum (2017) Intangible asset management of a company can support the acquisition of a competitive advantage, increase productivity, and increase its market value. Based on Barney (1991), intellectual capital based on RBV is the core of creating competitive advantage.

Previous studies have examined the effect of green accounting and intellectual capital on firm value. The results of these studies will be used as references and comparison materials in this study. Research conducted by Gantino et al. (2023) indicates that green accounting has no significant effect on firm value in the consumer goods sector, both before and after moderation; however, a substantial effect is observed in the automotive industry. Meanwhile, intellectual capital has a positive impact on firm value, both before and after moderation. Business strategy has a positive effect on firm value in the consumer goods sector, but no effect in other sectors. Business strategy also moderates the impact of green accounting and intellectual capital on firm value. Research conducted by Fernando et al. (2024) shows that green accounting disclosure has no effect on firm value in the mining and agriculture sectors in Southeast Asia. Research conducted by Anggita et al. (2022) suggests that the disclosure of carbon emissions has no impact, whereas green accounting has a positive influence on firm value. Research conducted by Kholmi & Nafiza (2022) shows that green accounting has no impact on profitability, while CSR has a positive effect. Research conducted by Jayanti & Romli (2023) shows that the disclosure of environmental costs has only a partial impact on profitability. Research conducted by Wahyuni et al. (2019) shows that green accounting has a positive effect on environmental performance, especially in the use of recycled materials and renewable energy. Research conducted by Sukmadilaga et al., (2023) shows that green accounting reporting has no significant effect on the value of ASEAN companies that won the Asia Sustainability Reporting Awards. In fact, water consumption harms EVA. Research conducted by Al-Dhaimesh (2020) shows that green accounting has a significant effect on EVA, but energy consumption and emissions have a negative impact. Research conducted by Agustia et al (2019) found that green innovation affects environmental management accounting (AML), which ultimately increases firm value.

Research conducted by Suzan & Ramadhani (2023) shows that intellectual capital, managerial ownership, and profitability have a significant effect on firm value in the non-cyclical consumption sector. Research conducted by Lestari & Sapitri (2016) shows that VAIC has no significant effect on firm value. Research conducted by Ana et al. (2021) shows that competitive advantage increases firm value, but does not act as a mediator for intellectual capital. Moreover, GSG plays a role in increasing firm value. Research conducted by Ekaputra et al. (2020) shows that intellectual capital has no significant effect on firm value in the LQ45 index, while only ROE has a considerable impact. Moreover, GSG plays a role in increasing firm value. Research conducted by Pratama et al. (2019) indicates that intellectual capital has a positive impact on the financial performance of companies in ASEAN, particularly when moderated

by research and development. Research conducted by Sharma et al. (2024) shows that Capital Employed Efficiency (CEE) has a significant influence on the financial performance of sugar factory companies in India. Research conducted by Isola et al. (2020) shows that the **participation of women on the board of directors has no significant effect**, but intellectual capital efficiency contributes positively to bank performance in Nigeria.

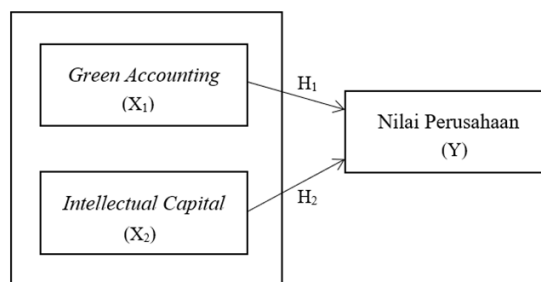
## Hypothesis Development

For investors, obtaining green accounting disclosure is a positive sign that indicates how the company's business operations impact the environment. It can be an attractive option for investors to buy shares, which can increase the company's share price. Companies that have implemented an environmental accounting system in accordance with their specific conditions can have this reflected in the ISO 14001 certificate they obtain. (Gantino et al., 2023) With this, there can potentially be a market reaction characterized by changes in stock prices (Gantino et al., 2023). In addition, theory and literature are also needed to underpin research on the effect of green accounting on firm value. In this case, signaling theory concentrates on information that provides a signal to the company's stakeholders. (Hartono, 2013) When the information conveyed contains positive value, the company expects a positive reaction from the market (Hartono, 2013). This theory can help facilitate the disclosure of social and environmental information that elicits a positive reaction or recognition, thereby increasing investor confidence (Agustia et al., 2019; Al-Dhaimesh, 2020; Wahyuni et al., 2019). The practice of green accounting / environmental management accounting can produce relevant information if appropriately implemented by the company, so that the application of green accounting can affect the company's stock price and increase firm value (Agustia et al., 2019; Al-Dhaimesh, 2020; Wahyuni et al., 2019). Thus, the hypotheses that can be proposed are:

H<sub>1</sub>: There is a positive influence of green accounting on firm value.

Intellectual capital (IC) has a vital role in creating value and sustainable company growth. (Barney, 1991) This aligns with Resource-Based Theory (RBT), which posits that IC is the core of value creation and a company's competitive advantage (Barney, 1991). In the RBT perspective, the creation of a company's competitive advantage emphasizes the superiority of knowledge or an economy that relies on intangible assets (Albertini & Berger-Remy, 2019). The management of intangible assets within a company can help increase productivity, gain a competitive advantage, and enhance market value (Ulum, 2017). With this competitive advantage, the company can compete effectively in the market, thereby creating value and achieving optimal performance. The results indicate that Intellectual capital has a significant impact on a company's financial performance (Ana et al., 2021; Gantino et al., 2023; Pratama et al., 2019; Suzan & Ramadhani, 2023). Thus, the hypothesis that can be proposed is:

H<sub>2</sub>: There is a positive influence of intellectual capital on firm value.



Picture 1. Research Framework  
Source: Author (2025)

## METHOD, DATA, AND ANALYSIS

This study applies a quantitative approach to test the theory through variables that can be measured numerically and analyzed statistically. The data used comes from the financial statements of mining sector companies listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period. Data sources were obtained from the official IDX website ([www.idx.co.id](http://www.idx.co.id)), the OSIRIS database, and the official websites of the respective companies. The population in this study includes all mining sector companies listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period, totaling 65 companies. Sampling was conducted using a purposive sampling technique based on specific criteria, resulting in 112 sample data points, which were used as the objects in this study.

**Table 1.** Research Sample

No.	Criteria	Total
1	Mining companies listed on the Indonesia Stock Exchange 2021-2023 (for 3 years)	195
2	Companies that do not provide data relevant to the research variables consecutively (for 3 years)	(78)
3	Companies whose final variable results are negative (for 3 years)	(5)
	Total company sample	112

Source: Processed Data (2025)

For the assessment of green accounting variables using the proxy of companies that hold ISO 14001 Certificates, while measuring the intellectual capital variable using the Value-Added Intellectual Coefficient (VAICTM), which provides information on the efficiency of value creation from both tangible and intangible assets within the company. The firm value in this study is measured using the Price-to-Book Value (P/BV) ratio, which compares a company's market value to its book value. This indicator is used to assess whether a company's share price is in an *overvalued* or *undervalued* condition, for the assessment of green accounting variables using the proxy of companies that hold ISO 14001 Certificates, while measuring the intellectual capital variable using the Value-Added Intellectual Coefficient (VAICTM), which provides information on the efficiency of value creation from both tangible and intangible assets within the company. The firm value in this study is measured using the Price-to-Book Value (P/BV) ratio, which compares a company's market value to its book value. This indicator is used to assess whether a company's share price is in an *overvalued* or *undervalued* condition.

**Table 2.** Variables Measurement

Variable	Measurement	Scale	Source
Green Accounting	Companies that have an ISO 14001 Certificate	Dummy (score 0 or 1)	(Gantino et al., 2023)
Intellectual Capital	VAICTM = VACA + VAHU + STVA VACA = VA/CE VAHU = VA/HC STVA = SC/VA	Ratio	(Aprianti, 2018)
Firm Value	PBV = Price per share/Book Value Per Share	Ratio	(Gantino et al., 2023)

Source: Processed Data (2025)

Value Added Intellectual Coefficient (VAICTM) is about the efficiency in creating value from tangible and intangible assets within the company (Gantino et al., 2023). VACA is the value resulting

from the comparison between VA (Value Added) and CE (Capital Employed), which represent the funds available to the company, specifically equity and the current year's profit. Value Added (VA) is equal to Total Income minus the difference between Total Expenses and Salary Expenses. Comprehensive Equity (CE) is the sum of Equity and the Current Year's Income. VAHU is the value resulting from the comparison between VA and the costs incurred in improving employee capabilities (HC). Human Capital (HC) is equal to the total expenses incurred for employees. And STVA is the value resulting from the comparison of SC (Structural Capital), which is the difference between VA minus the costs incurred in improving capabilities (HC), with VA (Aprianti, 2018). Furthermore, Structural Capital (SC) is calculated by subtracting Human Capital (HC) from Value Added (VA).

Data processing is performed using EViews 12 statistical software and analysis techniques, including multiple linear regression. The first step in this analysis is to test and determine the most appropriate regression model for the panel data used. Next, a classical assumption test was conducted to ensure that the estimation results were free from bias, followed by the hypothesis testing process.

## RESULTS AND DISCUSSION

### RESULTS

#### Descriptive Statistics

Based on the results of Table 3, it can be concluded that there are 112 valid samples for the three variables of green accounting, intellectual capital, and firm value. For the firm value variable, the minimum value of -1.154902 was recorded at **PT Citatah Tbk** in 2023, while the maximum value recorded was 1.348344 at **PT Bayan Resources Tbk** for 2022. The average firm value in the sample is 0.154645, with a standard deviation of 0.406250. This indicates a considerable difference between companies.

In the green accounting variable, the minimum and maximum values are 0.000000 and 1.000000, with an average of 0.508929, and the standard deviation is 0.502167. Meanwhile, in the intellectual capital variable, the minimum value of 0.242251 was recorded at PT Perdana Karya Perkasa TBK in 2022, while the maximum value of 2.687834 was recorded at PT Sumber Global Energy TBK in the same year. The average intellectual capital in the sample is 1.605943, with a standard deviation of 0.458897. This also shows that there is considerable variation between companies.

Table 3. Descriptive Statistics

	Firm Value	Green Accounting	Intellectual Capital
Mean	0,154645	0,508929	1,605943
Maximum	1,348344	1,000000	2,687834
Minimum	-1,154902	0,000000	0,242251
Std. Deviation	0,406250	0,502167	0,458897

Source: Processed Data (2025)

#### Model Test

Based on the results of the model test conducted (Table 4), the Chow Test yields a probability value of  $0.0000 < 0.05$ , indicating that the selected model is the Fixed Effect Model (FEM). Furthermore, the Hausman Test yields a probability value of 0.4243, which is greater than 0.05, indicating that the chosen model is the Random Effects Model. Then, the Lagrange Multiplier test shows the Cross-Section Breusch-Pagan value of  $0.0000 < 0.05$ , so the right model for this study is the Random Effect Model.

**Table 4.** Model Feasibility Test Results

No.	Test	Measurement	Result
1	Chow Test (0,0000<0,05)	CEM vs FEM	FEM
2	Hausman Test (0,4243>0,05)	FEM vs REM	REM
3	LM Test (0,0000<0,05)	CEM vs REM	REM

Source: Processed Data (2025)

After conducting the Hausman test and the Lagrange Multiplier test, the Random Effects Model (REM) was selected as the most appropriate model for panel data regression. According to Gujarati & Porter (2015) Equations that meet classical assumptions are those that use the Generalized Least Squares (GLS) method. In the EViews software, the estimation method applied for GLS is the Random Effect Model (REM). Thus, it can be concluded that this study has met the classical assumption test, considering that the Random Effects Model (REM) was chosen as the appropriate model.

According to Ghozali (2018) Multicollinearity testing is conducted to assess whether there is a correlation between the independent variables in the regression model. If the correlation value between independent variables is less than 0.8, then there is no multicollinearity problem. Based on Table 4, the correlation coefficient value is smaller than 0.8, meaning that there is no multicollinearity problem.

#### Multiple Linear

The following equation describes the multiple linear regression model:

$$FV = \alpha + \beta_1GA + \beta_2IC + e$$

$$FV = -0.037502 - 0.137427GA + 1.683332IC + e$$

FV = Firm Value

$\alpha$  = Constanta

$\beta_1$ - $\beta_2$  = Coefisien Regresion

GA = Green accounting

IC = Intellectual capital

e = Error term

The coefficient of determination is used to measure the extent to which the regression model can explain variations in the dependent variable. The adjusted R-squared value is 0.0458 or 4.58%, which means that only 4.58% of the variation in firm value can be explained by the Green accounting and Intellectual capital variables. Meanwhile, the remaining 95.42% is influenced by other variables such as return on earnings and profitability.

The low R<sup>2</sup> value in this study, at 4.58%, indicates that the green accounting and intellectual capital variables can only explain a small portion of the variation in firm value. This is due to several factors related to the industry context and the limitations of the research model. First, in the mining industry, the primary factors influencing firm value tend to stem from tangible aspects, such as physical asset ownership, commodity price fluctuations, production volume, and government regulations. Therefore, intangible variables such as green accounting and intellectual capital are less relevant or have less impact on market valuation. Second, the measurement of green accounting that relies solely on the ISO 14001 certificate ownership indicator, represented as a dummy variable, is too simplistic to capture the complexity of corporate environmental sustainability practices. Third, this research model also does not include other variables that have been empirically proven to affect firm value, such as return on earnings,

profitability, or macroeconomic factors. The absence of these critical variables results in a low coefficient of determination.

## Hypothesis Result Tests

**Table 5.** Hypothesis Result Test

Variables	Coefficient	t-Stat.	Prob.
C	-0,037502	-0,220618	0,8258
Green Accounting	-0,137427	-0,150761	0,1345
Intellectual Capital	0,168332	1,877763	0,0631
R-squared			0,0630
Adjusted R-Square			0,0458

Source: Processed Data (2025)

H<sub>1</sub>: There is a positive influence of green accounting on firm value.

The results of the t-test (Table 5) on the green accounting variable (X<sub>1</sub>) yielded a p-value of 0.1345, which is greater than 0.05. Therefore, H<sub>1</sub> is rejected, indicating that the green accounting variable does not affect firm value.

H<sub>2</sub>: There is a positive influence of intellectual capital on Firm Value.

The results of the t-test on the intellectual capital variable (X<sub>2</sub>) yielded a p-value of 0.063, which is greater than 0.05. Therefore, H<sub>2</sub> is rejected, meaning that the intellectual capital variable does not affect firm value.

## Discussion

### There Is No Influence of Green Accounting on Firm Value

Theoretically, Signaling Theory posits that the disclosure of environmental information, such as ISO 14001 certification, can provide positive signals to the market and investors. The signal should indicate that the company is committed to sustainability, thereby enhancing its reputation and value. However, the results of this study suggest that green accounting does not affect firm value. This finding indicates that the sustainability signal from ISO 14001 certification is not sufficiently strong to influence market perceptions, particularly in the mining sector. This is supported by research conducted by Fernando et al. (2024), Gantino et al. (2023), Jayanti and Romli (2023), and Sukmadilaga et al. (2023), which also found that green accounting does not affect firm value. This is due to several main factors. (Ekaputra et al., 2020) First, investors in the mining sector tend to focus more on profitability aspects, such as net income, ROE, and EBITDA (Ekaputra et al., 2020), rather than compliance with environmental standards. PBV reflects the valuation of a company's assets in the market, which is more influenced by financial performance than ecological certification. Secondly, the implementation of ISO 14001 does not directly increase a company's revenue. It can increase operating costs in the short term without having an instant impact on efficiency or profitability. Additionally, the Indonesian stock market does not yet fully recognize ESG factors as a key indicator in determining company valuation.

Hence, investors tend not to make ISO 14001 a primary consideration in assessing a company's share price or book value. External factors such as commodity price fluctuations, government regulations, and global demand for mining products play a greater role in determining the PBV of mining companies.

Meanwhile, although ISO 14001 can improve a company's reputation and strengthen stakeholder trust, its impact is more pronounced in terms of goodwill rather than directly increasing the company's market value. Therefore, despite its importance in the sustainability aspect, ISO 14001 certification has not been the main factor influencing the PBV of mining companies in Indonesia.

### **There Is No Influence of Intellectual Capital on Firm Value**

Based on Resource-Based Theory (RBT), intellectual capital is a rare strategic asset that is difficult to imitate, and it can create a competitive advantage and increase firm value. However, the results of this study indicate that intellectual capital has no effect on firm value in the mining sector. This shows that, although IC is theoretically necessary, its contribution to market value is not directly reflected in investor sentiment in this sector. This is in line with research conducted by Ekaputra et al. (2020) & Lestari and Sapitri (2016), which suggests that intellectual capital does not significantly impact firm value. This is because the industry relies more on physical assets, such as mineral reserves, equipment, and infrastructure, than on innovation or intellectual capital.

External factors, including fluctuations in commodity prices, government regulations, and the level of mining production and exploitation, primarily determine the value of companies in this industry. In addition, investment in innovation and technology remains limited, as mining companies tend to focus more on operational efficiency and natural resource management rather than developing intellectual capital. Investors in the mining sector are also more interested in tangible and measurable factors, such as mining land area, exploitation licenses, and production volume, compared to intellectual assets, which are difficult to measure in the short term. The lack of recognition of intellectual capital in financial statements also makes this factor less accounted for in company valuations, particularly by investors who rely on financial indicators such as Price-to-Book Value (P/BV) and Return on Assets (ROA). Thus, although intellectual capital can improve operational efficiency and sustainability, its impact on the value of mining firms remains limited, as tangible factors and global market conditions have a greater influence on the industry.

### **CONCLUSION AND SUGGESTIONS**

This study scientifically examines the effect of green accounting and intellectual capital on firm value in mining sector companies listed on the Indonesia Stock Exchange from 2021 to 2023. The **results** show that, partially, there is no influence of green accounting on firm value, as well as on intellectual capital on firm value. In the context of green accounting, investors prioritize aspects of profitability and financial performance, such as net income and ROE, over compliance with environmental standards. Although ISO 14001 can improve a corporate reputation, its impact is more pronounced in terms of goodwill and does not directly increase revenue or operational efficiency. Meanwhile, intellectual capital also has no effect because the mining industry is more dependent on physical assets and external factors such as commodity price fluctuations and government regulations. Investors tend to be more interested in measurable and tangible indicators, such as mining land area and production volume, rather than intellectual assets that are difficult to measure their impact in the short term. Thus, although these two aspects are essential for sustainability and operational efficiency, their influence on the value of mining companies in Indonesia remains limited, suggesting that tangible factors and global market conditions have a greater impact on the industry.

Therefore, the **implications** of this study offer benefits for companies, as these findings highlight the importance of aligning sustainability strategies and human resource development to improve

financial performance in real terms. Meanwhile, for policymakers and regulators, the results of this study can serve as a consideration for encouraging policies that support the integration of environmental and intellectual aspects into a more transparent and market-valued reporting system.

The **limitations** in this study lie in the scope of the variables used. The characteristics of the industrial sector studied, specifically the mining sector, which tends to depend on physical assets and is influenced by external factors such as commodity prices and government regulations, mean that the results cannot be generalized to other, more knowledge-based sectors. Therefore, **suggestions** for future research include considering different sectors and extending the research period. In addition, it is recommended to include independent variables such as company size, macroeconomic conditions, government policies and regulations, and ESG (Environmental, Social, Governance) factors to enhance research results regarding the impact on firm value. Future research can also use other dependent variables that are more representative of measuring firm value.

## REFERENCES

- Agustia, D., Sawarjuwono, T., & Dianawati, W. (2019). The Mediating Effect of Environmental Management Accounting on Green Innovation - Firm Value Relationship. *International Journal of Energy Economics and Policy*, 9(2 SE-Articles), 299–306. <https://doi.org/10.32479/ijeep.7438>
- Al-Dhaimesh, O. H. (2020). Green Accounting Practices And Economic Value Added: An Applied Study On Companies Listed On The Qatar Stock Exchange. *International Journal of Energy Economics and Policy*, 10(6), 164–168. <https://doi.org/10.32479/ijeep.10199>
- Albertini, E., & Berger-Remy, F. (2019). Intellectual Capital and Financial Performance: A Meta-Analysis and Research Agenda. *M@n@gement*, 22(2), 216. <https://doi.org/10.3917/mana.222.0216>
- Ana, S. R., Sulistiyo, A. B., & Prasetyo, W. (2021). The Effect of Intellectual Capital and Good Corporate Governance on Company Value Mediated by Competitive Advantage. *Journal of Accounting and Investment*, 22(2). <https://doi.org/10.18196/jai.v22i2.10412>
- Anggita, W., Nugroho, A. A., & Suhaidar. (2022). Carbon Emission Disclosure And Green Accounting Practices On The Firm Value. *Jurnal Akuntansi*, 26(3), 464–481. <https://doi.org/10.24912/ja.v26i3.1052>
- Aprianti, S. (2018). Pengaruh VACA, VAHU, dan STVA terhadap Nilai Perusahaan pada Perusahaan Perbankan yang Terdapat di BEI. *Jurnal Riset Terapan Akuntansi*, 2(1), 70–81. Dikutip dari berita pada 12/04/2024
- Arlinta, D. (2021). *Aturan Pengelolaan Limbah Abu Batubara Dilonggarkan*. Kompas.Id. <https://www.kompas.id/baca/ilmu-pengetahuan-teknologi/2021/03/13/aturan-pengelolaan-limbah-abu-batubara-dilonggarkan>. Dikutip dari BPS pada 12/04/2024
- Badan Pusat Statistik. (2024). *Realisasi Investasi Penanaman Modal Luar Negeri Menurut Sektor Ekonomi*. <https://www.bps.go.id/id/statistics-table/2/MTgzOSMy/realisasi-investasi-penanaman-modal-luar-negeri-menurut-sektor-ekonomi-23-sektor-.html>
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Ekaputra, A. E., Fuadah, L., & Yuliana, S. (2020). Intellectual Capital, Profitability, and Good Corporate Governance Effects on Company Value. *Binus Business Review*, 11(1), 25–30. <https://doi.org/10.21512/bbr.v11i1.6005>
- Fernando, K., Jocelyn, H., Frista, F., & Kurniawan, B. (2024). The Effect of Green Accounting Disclosure on the Firm Value of Listed Mining and Agriculture Companies in Southeast Asia Countries. *International Journal of Energy Economics and Policy*, 14(1), 377–382. <https://doi.org/10.32479/ijeep.15151>

- Gantino, R., Endang, R., & Widodo, A. M. (2023). Green Accounting And Intellectual Capital Effect On Firm Value Moderated By Business Strategy. *Jurnal Akuntansi*, 27(1), 38–61. <https://doi.org/10.24912/ja.v27i1.1118>
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro.
- Gujarati, D. N., & Porter, D. C. (2015). *Dasar-dasar Ekonometrika Buku 2, Edisi 5*. Diterjemahkan Oleh: Raden Carlos Mangungsong. Salemba Empat.
- Hartono, J. (2013). *Teori Portofolio dan Analisis Investasi edisi 8*. BPF.
- Isola, W. A., Adeleye, B. N., & Olohunlana, A. O. (2020). Boardroom female participation, intellectual capital efficiency and firm performance in developing countries. *Journal of Economics, Finance and Administrative Science*, 25(50), 413–424. <https://doi.org/10.1108/JEFAS-03-2019-0034>
- Jayanti, D., & Romli, R. (2023). Application of green accounting to company values through profitability. *Jurnal Ilmiah Akuntansi Dan Keuangan*, 5(11). <https://journal.ikopin.ac.id/index.php/fairvalue/article/view/3469>
- Kholmi, M., & Nafiza, S. A. (2022). Pengaruh Penerapan Green Accounting dan Corporate Social Responsibility Terhadap Profitabilitas (Studi Pada Perusahaan Manufaktur Yang Terdaftar di BEI Tahun 2018-2019 ). *Reviu Akuntansi Dan Bisnis Indonesia*, 6(1), 143–155. <https://doi.org/10.18196/rabin.v6i1.12998>
- Lestari, N., & Sapitri, R. C. (2016). Pengaruh Intellectual Capital Pada Nilai Perusahaan. *Akuntansi, Ekonomi Dan Manajemen Bisnis*, 4(1), 28–33. <https://jurnal.polibatam.ac.id/index.php/JAEMB/article/view/81>
- Pratama, B. C., Wibowo, H., & Innayah, M. N. (2019). Intellectual Capital and Firm Performance in ASEAN: The Role of Research and Development. *Journal of Accounting and Investment*, 20(3). <https://doi.org/10.18196/jai.2003126>. Dikutip dari berita pada 17/03/2024
- Priandaru, D. L. (2023). *Isu Lingkungan di Indonesia Bikin Gentar Investor Asing*. Kompas.Com. <https://www.kompas.com/global/read/2023/04/01/101500370/isu-lingkungan-di-indonesia-bikin-gentar-investor-asing?page=all>
- Sharma, D., Verma, R., Patil, C., & Nayak, J. K. (2024). Relationship between intellectual capital and firm performance: evidence from the Indian sugar mill industry. *IIMT Journal of Management*, 1(1), 98–111. <https://doi.org/10.1108/IIMTJM-11-2023-0054>
- Spence, M. (2002). Signaling in Retrospect and the Informational Structure of Markets. *American Economic Review*, 92(3), 434–459. <https://doi.org/10.1257/00028280260136200>
- Sukmadilaga, C., Winarningsih, S., Yudianto, I., Lestari, T. U., & Ghani, E. K. (2023). Does Green Accounting Affect Firm Value? Evidence from ASEAN Countries. *International Journal of Energy Economics and Policy*, 13(2), 509–515. <https://doi.org/10.32479/ijee.14071>
- Suzan, L., & Ramadhani, N. I. (2023). Firm Value Factors: The Effect Of Intellectual Capital, Managerial Ownership, And Profitability. *Jurnal Akuntansi*, 27(3), 401–420. <https://doi.org/10.24912/ja.v27i3.1487>
- Ulum, I. (2017). *Intellectual capital: Model pengukuran, framework pengungkapan & kinerja organisasi*. UMM Press.
- Ulum, I., Rizqiyah, & Jati, A. (2016). Intellectual Capital Performance: A Comparative Study between Financial and Non-Financial Industry of Indonesian Biggest Companies. *International Journal of Economics and Financial Issues*, 6, 1436–1439.
- Wahyuni, W., Meutia, I., & Syamsurijal, S. (2019). The Effect of Green Accounting Implementation on Improving the Environmental Performance of Mining and Energy Companies in Indonesia. *Binus Business Review*, 10(2), 131–137. <https://doi.org/10.21512/bbr.v10i2.5767>