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Green Intellectual Capital As a Catalyst: Synergizing Competitive Strategy And Carbon Disclosure For Firm Performance

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ABSTRACT

The global shift towards a low-carbon economy has pressured Indonesian firms to integrate environmental stewardship into their core strategies. This study aims to investigate the influence of Sustainability Committee, Competitive Business Strategy, and Carbon Emission Disclosure on the financial performance of JII70-listed companies from 2020 to 2024, with a specific focus on the moderating role of Green Intellectual Capital (GIC). Utilizing panel data and Moderated Regression Analysis (MRA), the results reveal that Competitive Business Strategy and Carbon Emission Disclosure significantly enhance Return on Assets (ROA), while Sustainability Committees remain largely symbolic. A unique finding of this research is that GIC serves as a powerful "strengthening" moderator, transforming environmental transparency and asset efficiency into superior economic returns. This suggests that internal knowledge-based green assets are essential for translating sustainability efforts into competitive financial advantages in the Sharia capital market.

Keywords: *Green Intellectual Capital; Competitive Business Strategy; Carbon Emission Disclosure; Firm Performance; Jakarta Islamic Index 70*

ABSTRAK

Pergeseran global menuju ekonomi rendah karbon telah menekan perusahaan-perusahaan di Indonesia untuk mengintegrasikan manajemen lingkungan ke dalam strategi inti mereka. Penelitian ini bertujuan untuk menginvestigasi pengaruh Komite Keberlanjutan, Strategi Bisnis Kompetitif, dan Pengungkapan Emisi Karbon terhadap kinerja keuangan perusahaan yang terdaftar di JII70 periode 2020 hingga 2024, dengan fokus spesifik pada peran moderasi *Green Intellectual Capital* (GIC). Dengan menggunakan data panel dan *Moderated Regression Analysis* (MRA), hasil penelitian mengungkapkan bahwa Strategi Bisnis Kompetitif dan Pengungkapan Emisi Karbon secara signifikan meningkatkan *Return on Assets* (ROA), sementara Komite Keberlanjutan sebagian besar masih bersifat simbolis. Temuan unik dari penelitian ini adalah bahwa GIC berfungsi sebagai moderator 'penguat' yang kuat, yang mentransformasi transparansi lingkungan dan efisiensi aset menjadi imbal hasil ekonomi yang unggul. Hal ini menunjukkan bahwa aset hijau berbasis pengetahuan internal sangat penting untuk menerjemahkan upaya keberlanjutan menjadi keuntungan finansial yang kompetitif di pasar modal Syariah.

Kata kunci: Modal Intelektual Hijau; Strategi Bisnis Kompetitif; Pengungkapan emisi Karbon; Kinerja Perusahaan; Jakarta Islamic Index 70

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INTRODUCTION

Indonesia's business landscape from 2020 to 2024 was marked by unprecedented economic turbulence, creating double pressure on corporations. Companies faced the need to recover their financial performance post-pandemic while simultaneously facing pressing demands to comply with increasingly stringent global sustainability standards. The primary phenomenon underlying this research is the contraction in profitability and efficiency among blue-chip companies listed on the Jakarta Islamic Index 70 (JII70), particularly in the manufacturing, mining, and energy sectors. Empirical data indicates that 2023 and 2024 will be a challenging period for issuers in these sectors due to the decline in global commodity prices, previously a key driver of profitability (Bursa Efek Indonesia, 2024).

This decline in financial performance forced company management to refocus on internal fundamentals, namely operational efficiency. In the context of Michael Porter's strategy theory, when a company faces margin pressure and lacks the power to dictate prices (price taker), the only way to maintain a healthy Return on Assets (ROA) is through a Cost Leadership Strategy (Tampubolon & Rahmadhani, 2023). The most accurate financial manifestation of this strategy is an increase in asset turnover, where the company must be able to spur its productive assets to generate higher sales volumes (Zhang, 2007).

However, these efficiency strategies often clash with the need for significant investment in green transformation. This is where the urgency and fundamental importance of this research lie. Herein lies the paradox and urgency of this research: as companies struggle to streamline their assets, they are faced with a "tsunami" of sustainability regulations. In 2024, the Indonesian Institute of Accountants (IAI), through its Sustainability Standards Board (DSK), launched a new reporting standard adopting IFRS S1 and IFRS S2 (Climate-Related Disclosures) (Pers, 2025). This standard requires companies to disclose carbon emissions and climate transition risks in an integrated manner within their financial statements. For JII70 issuers, the majority of whom are real-sector companies with a high carbon footprint, this is an existential challenge. Unpreparedness to manage emissions impacts not only reputation but also access to capital (cost of capital) and market valuation. Furthermore, Islamic (sharia) principles strictly prohibit damage to the earth (*fasad*), providing an additional binding moral imperative for JII70 issuers to manage the environment responsibly (Harun, 2025).

Globally, climate change and environmental degradation have become a real multidimensional crisis (Leitzell & Berger, 2021). High levels of carbon dioxide (CO2) emissions from industrial activities are a major factor in this phenomenon (United Nations, 2022). The Indonesian government has committed through its Nationally Determined Contribution (NDC) to reduce greenhouse gas emissions by 31.89% through its own efforts by 2030 (Kementerian Lingkungan Hidup dan Kehutanan, 2022). This commitment forces corporations as major emission contributors to operate more responsibly. This has given rise to a global investment paradigm shift towards an Environmental, Social, and Governance (ESG) model, where sustainable investment assets continue to show exponential growth (Global Sustainable Investment Alliance, 2021).

As a strategic response, companies have begun reforming their governance structures by establishing a Sustainability Committee at the board level. This committee has a specific mandate to oversee and formulate sustainability strategies to improve the accountability and effectiveness of environmental program implementation (Li et al., 2023). Furthermore, companies are required to have an adaptive Competitive Business Strategy (CBS), which has now evolved into a strategic approach encompassing sustainable innovation (Hart & Hart, 2013). A green strategy will not be effective without public disclosure through Carbon Emission Disclosure (CED). Good CED practices demonstrate corporate accountability, increase investor confidence, and serve as an important indicator in decision-making (Aura et al., 2025).

Despite the clear urgency of sustainability practices, this research is motivated by the existence of both empirical and theoretical research gaps. Empirically, previous literature still shows inconsistent results (*empirical gap*) regarding the impact of Sustainability Committees, CBS, and CED on company performance. Some studies found that sustainability implementation burdens short-term operational costs, thereby reducing financial performance, while other studies proved a positive impact through long-term reputation enhancement. Theoretically (*theoretical gap*), there remains a void in explaining the mechanism of how green commitments and strategies can be effectively converted into financial gains without sacrificing efficiency. The traditional paradigm has not fully explained how environmentally based intangible assets bridge the gap between green strategy and financial performance.

To address these research gaps, this study proposes Green Intellectual Capital (GIC) as a moderating variable. GIC is projected to act as a "catalyst" capable of strengthening the influence of Sustainability Committees, CBS, and CED on company performance. The presence of GIC is assumed to be capable of transforming environmental compliance costs into an invisible competitive advantage, ensuring that companies remain efficient even as they undergo a green transition.

Through the integration of these variables, this research is expected to provide significant theoretical and practical contributions. Theoretically, this research contributes to expanding the literature on sustainability accounting and corporate governance by demonstrating the moderating role of Green Intellectual Capital in resolving the anomalous relationship between pro-environmental strategies and financial performance (Harun, 2025). Practically, the results of this study are expected to serve as an empirical guide for the management of JII70 issuers in formulating resource allocation strategies between cost efficiency and green investments. Additionally, these findings can provide valuable input for regulators, specifically the Financial Services Authority (OJK) and DSK IAI, in evaluating the readiness of the Islamic capital market industry to face the full implementation of IFRS S1 and S2.

TINJAUAN LITERATUR

Resource-Based View (RBV)

Resource-Based View theory views a firm as a collection of unique and heterogeneous resources and capabilities (Irmayunda et al., 2025). The source of sustainable competitive advantage lies in internal resources that meet the VRIN criteria: valuable, rare, inimitable, and non-substitutable (Sanjaya et al., 2024).

Superior firm performance is a manifestation of the firm's success in developing these resource bundles (Adnan & Sohail, 2018). In this perspective, the Sustainability Committee and CBS are seen as organizational capabilities to identify and allocate resources towards sustainability. GIC is an archetype of VRIN resources because it includes collective knowledge (Green Human Capital), organizational systems (Green Structural Capital), and pro-environmental relationships (Green Relational Capital) that are difficult for competitors to imitate (Ramadhani & Amin, 2023).

Stakeholder Theory

Stakeholder theory proposes that companies are not entities operating in a vacuum solely to maximize shareholder wealth, but rather systems dependent on the support of various parties (Shen et al., 2020). Companies in the extractive sector face high legitimacy pressures due to the negative externalities they generate in the form of emissions. If companies fail to meet information expectations, stakeholders may withdraw support, such as investors divesting or banks raising loan interest rates. Companies that proactively establish Sustainability Committees and disclose carbon emissions are considered to be fulfilling the social contract, which guarantees access to capital and improves long-term financial performance (Dwicahyani et al., 2024).

Sustainability Committee

The Sustainability Committee is a specialized committee within corporate governance that focuses on the oversight, control, and implementation of sustainability strategies (Li et al., 2023). The presence of this committee is believed to strengthen environmental, social, and governance (ESG) governance by ensuring company policies align with sustainable development principles (Hussain et al., 2018).

Competitive Business Strategy (CBS)

Competitive business strategy (CBS) is a series of efforts and decisions taken by a company to build a profitable and sustainable position in its industry. Competitive Business Strategy (CBS) in the modern paradigm demands the creation of shared value , where operational efficiency is aligned with ecological solutions. CBS measurement through asset turnover reflects management acumen in utilizing the productive asset base to generate optimal revenue (Porter & Kramer, 2011).

Carbon Emission Disclosure (CED)

Carbon Emission Disclosure is a form of corporate accountability in informing the public regarding the amount of carbon emissions produced and the mitigation strategies implemented (Rahmawati & Inawati, 2024). CED serves as a strategic communication tool to manage market perceptions of climate transition risks. High transparency tends to be responded to by the market with a reduced cost of capital . Carbon emission disclosure is measured using a carbon emission disclosure checklist developed by Choi et al. (2013) based on information request sheets from the Carbon Disclosure Project (CDP).

The Moderating Role of Green Intellectual Capital (GIC)

Green Intellectual Capital is an intangible asset related to knowledge, systems, and relationships that support environmental sustainability. It consists of three

components: green human capital (employee competence in environmental issues), green structural capital (processes, organizational culture, environmental management systems), and green relational capital (relationships with pro-environmental stakeholders) (Mahmood et al., 2024). GIC acts as a "translation engine" that transforms strategic direction into concrete actions that create value. GIC serves as an internal foundation that enables companies to transform environmental compliance costs into economic value that enhances global competitiveness.

Research Framework

This research framework is structured to illustrate the relationships between the various variables tested in this study. The primary focus is to examine the influence of the sustainability committee, competitive business strategy (CBS), and carbon emission disclosure (CED) on firm performance, with green intellectual capital (GIC) serving as the moderating variable.

These three independent variables sustainability committee, CBS, and CED were selected due to their significant roles in enhancing environmental awareness and corporate performance in the era of sustainability. Furthermore, green intellectual capital (GIC) is considered a factor that can either strengthen or weaken the relationship between these three variables and firm performance, given the importance of green-based knowledge and innovation in creating long-term competitiveness. This framework aims to provide a clear overview of how each variable interacts and influences firm performance within the context of implementing environmentally friendly policies. The research framework is presented as follows:

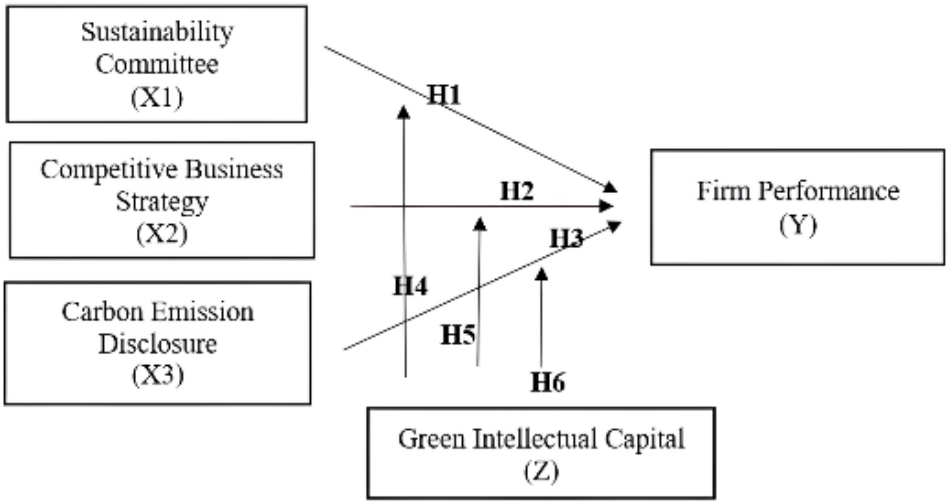

Figure 1. Research Framework
Source: Data processed by researchers (2026)

RESEARCH METHOD

This study uses a quantitative approach with secondary data sourced from annual reports and sustainability reports. Data were obtained from the official website of the Indonesia Stock Exchange (www.idx.co.id) and the official websites of each sample company (Muchlish & Abbas, 2024). The population in this study includes all companies listed on the Jakarta Islamic Index 70 (JII70) during the period 2020 to 2024, totaling 132 companies.

Table 1. Criteria for determining company samples

No	Criteria	Number of Companies
1.	Companies that have consistently been included in the JII70 index during 2020–2024.	132
2.	Companies that do not consistently publish annual reports *and* sustainability reports *every* year during the period.	(108)
3.	Companies that experienced losses (negative net profit) during the research period to maintain the validity of profitability-based performance measurements (ROA).	(2)
4.	Companies that fall into the Service, Banking, and Property sectors (Due to different financial reporting structures).	(7)
Number of sample companies observed		**15**
Observation year		**5**
Total data processed		**75**

Source: Data processed by researchers (2026)

The sample was selected using a purposive sampling method based on specific criteria: companies that consistently appear in the JII70 index, publish complete reports, have not experienced losses, and are not from the service, banking, or property sectors to avoid bias in measuring financial structure. Based on these criteria, 15 sample companies were obtained with a total of 75 observation data points over five years.

Data analysis was conducted using panel data regression with testing stages including descriptive statistics, stationarity test, classical assumption test (normality, multicollinearity, heteroscedasticity, and autocorrelation), as well as model feasibility test (F Test, t Test, and R2 Determination Coefficient) and Moderated Regression Analysis (MRA) with the help of EViews 12 software. The MRA equation model in this study was designed to test the effect of interaction between independent variables and moderating variables on company performance (ROA) as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z + \beta_5 (X_1 * Z) + \beta_6 (X_2 * Z) + \beta_7 (X_3 * Z) + \varepsilon$$

Information:

Y	= firm performance
$X_1 * z$	= interaction variable 1
$X_2 * z$	= interaction variable 2
$X_3 * z$	= interaction variable 3
α	= constant
$\beta_1, \beta_2, \ldots, \beta_7$	= regression coefficient
ε	= error term (residual)

Table 2. Operational definitions of variables

No	Variables	Definition	Measurement	Scale
1	*Sustainability committee* (X1)	*The sustainability committee* is a special committee in corporate governance that focuses on monitoring, controlling, and implementing sustainability strategies (Li, C., Zheng, M., & Zhang, 2023) .	1 = The company has a sustainability/ESG committee. 0 = The company does not have such a committee. (Muntaha & Haryono, 2021)	Dummy
2	*Competitive business strategy* (X2)	A company's consistent pattern of adaptation to its business environment, reflecting its approach to dealing with entrepreneurial, operational, and administrative issues. (M. Porter, 1985) .	$CBS = \frac{Sales}{Total\ aset}$ x 100% Information: CBS: *competitive business strategy* *Sales* : sales *Total assets* : total assets (Hakki et al., 2024)	Ratio
3	*Carbon emission disclosure* (X3)	*Carbon emissions sion disclosure* is a form of corporate accountability in informing the public regarding the amount of carbon emissions produced and the mitigation strategies implemented (Clarkson et al., 2008) .	CED $= \frac{\text{Jumlah item yang diungkapkan}}{\text{Total item pengungkapan CED}}$ Information: CED: *carbon emission disclosure* Number of items disclosed: Number of *carbon emission disclosure checklist items* disclosed by the company in *its sustainability report* Total disclosure items: Total disclosure items in *the carbon emission disclosure checklist* (Damas et al., 2021)	Ratio

No	Variables	Definition	Measurement	Scale
4	Company performance (Y)	The work results achieved by a company in a certain period reflect the level of financial health and market value of the company (Choi et al., 2013) .	$ROA = \frac{Net\ Income}{Total\ Asset} \times 100\%$ Information: ROA: *return on assets* *Net income* : net profit *Total assets* : total assets (Hakki et al., 2024)	Ratio
5	*Green intellectual capital* (Z)	*Green intellectual capital* is an intangible asset related to knowledge, systems, and relationships that support environmental sustainability. (YS Chen, 2008) .	$GIC = \frac{n}{k}$ Information: GIC: *Green Intellectual Capital* n : Number of items disclosed by the company k : Number of items contained in *green intellectual capital* (Anggriani & Dewi, 2022)	Ratio

Source: Data processed by researchers (2026)

RESULTS AND DISCUSSION

RESULTS

Stationarity Test

A variable is said to be stationary if the variable has a variance value that is not far from the average value (Basuki, 2016). The process of making decisions in the stationarity test is when the probability value is < 0.05 , therefore the data is stationary (winarno, 2015).

Table 3. Stationarity Test Results

No	Variables	Prob.	Information
1.	Sustainability Committee (X1)	-	Dummy variables
2.	Competitive Business Strategy (X2)	0.0000	Stationary at level level
3.	Carbon Emission Disclosure (X3)	0.0000	Stationary at level level
4.	Company Performance (Y)	0.0000	Stationary at level level
5.	Green Intellectual Capital (Z)	0.0395	Stationary at level level

Source: Data processed by researchers (2026)

Based on Table 3, testing was not performed on the Sustainability Committee variable (X1) because it is a static dummy variable and theoretically does not require a stationarity test. Meanwhile, the test results on continuous variables show that all probabilities are smaller than the 5% significance level ($p < 0.05$), so the null

hypothesis is rejected. This proves that Competitive Business Strategy, Carbon Emission Disclosure, Company Performance, and Green Intellectual Capital are stationary at the base level (level) or integrated at zero order.

Classical Assumption Test

Normality Test

The normality test is used to see whether the distribution of data is normal or not (Basuki, 2016). In testing using the histogram normality test, if the probability value is greater than a = 10%, the data is said to be normally distributed.

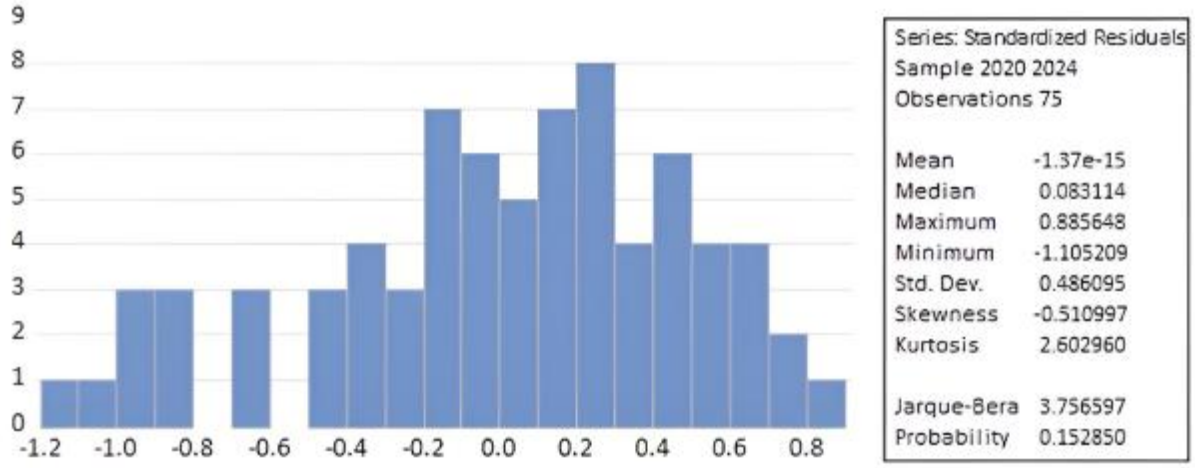

Figure 2. Normality Test Results
Source: Data obtained by researchers (2026)

Based on the results of the normality test in Table 4 using the Jarque-Bera method, a probability value of 0.152850 was obtained. Because this significance value is greater than α = 10% , it can be concluded that the residuals in this regression model are normally distributed. This indicates that the normality assumption has been met, making the model suitable for further hypothesis testing.

Multicollinearity Test

The multicollinearity test is carried out using a regression test with decision making if the VIF value is < 10 or has a tolerance value > 0.1, then it can be said that there is no multicollinearity problem in the regression model (Ghozali, 2016).

Table 4. Results of Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.017210	96.76409	NA
X1	0.000285	2.312145	1.353532
X2	0.003231	13.95990	1.022994
X3	0.003589	18.18413	1.297090

Z	0.018342	94.63374	1.198629

Source: Data processed by researchers (2026)

Based on the results of the multicollinearity test in Table 4, overall, the independent variables (Sustainability Committee, Competitive Business Strategy, Carbon Emission Disclosure) and the moderating variable (Green Intellectual Capital) have Centered VIF values that are far below 10. This indicates that there is no strong linear relationship or correlation between the independent variables in this regression model. Thus, the classical assumption of non-multicollinearity has been met, so the regression model is suitable for further analysis.

Heteroscedasticity Test

This test is used to determine whether there are differences in variance and residuals from one observation to another. If the test result is above the significance level ($p > 0.05$), heteroscedasticity is not present. However, if it is below the significance level ($p < 0.05$), heteroscedasticity is present (Ghozali, 2016).

Table 5. Results of Heteroscedasticity Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.044652	0.090212	-0.494967	0.6222
X1	-0.0009547	0.011656	-0.819014	0.4156
X2	0.014485	0.037169	0.389705	0.6979
X3	0.070391	0.041568	1.693409	0.0948
Z	0.021831	0.093651	0.233112	0.8164

Source: Data processed by researchers (2026)

Based on the results of the heteroscedasticity test presented in table 6 above, it is known that all independent variables (Sustainability Committee, Competitive Business Strategy, Carbon Emission Disclosure) and the moderating variable (Green Intellectual Capital) have a significance value (Prob.) greater than the significance level of alpha = 0.05 (5%). Thus, it can be concluded that this regression model meets the classical assumption of non-heteroscedasticity, which means there is no problem of differences in residual variance between observations, so the model is suitable for use in further analysis.

Autocorrelation Test

According to Ghozali (2016) autocorrelation occurs because the regression model correlates the residuals from one period to the previous period. A good regression model is considered good if there is no autocorrelation. To determine whether autocorrelation exists in a study, the Durbin-Watson (DW) test is performed.

Table 6. Autocorrelation Test Results

Weighted Statistics			
R-squared	0.341081	**Mean dependent var**	0.035401
Adjusted R-squared	0.272239	**S.D. dependent var**	0.038888
S.E. of regression	0.033175	**Sum squared resid**	0.073737
F-statistic	4.954529	**Durbin-Watson stat**	1.468157
Prob(F-statistic)	0.000148		

Source: Data processed by researchers (2026)

Based on the results of the autocorrelation test in table 6 using the Durbin-Watson method, the DW value was 1.468157, dL = 1.422, and dU = 1.529. Considering that the DW value is close to 1.5 and is supported by a very strong model significance value (Prob (F-statistic) of 0.000148), it can be concluded that this regression model does not experience extreme or serious autocorrelation disturbances . Thus, the model is still considered efficient, unbiased, and suitable for use in hypothesis testing and further data analysis.

Descriptive Statistics

According to Sugiyono (2013), descriptive statistics serve as an analytical technique to describe data characteristics through numerical summaries without the aim of making broad generalizations. This summary includes measures of central tendency, such as the mean, median, and mode, as well as measures of dispersion, such as the standard deviation. The results of the descriptive tests are presented as follows:

Table 7. Descriptive Statistics Results

	Y	X1	X2	X3	Z	X1Z	X2Z	X3Z
Mean	0.11	0.77	0.84	0.91	0.95	0.74	0.80	0.87
Median	0.10	1.00	0.92	0.94	0.94	0.94	0.86	0.89
Maximum	0.30	1.00	1.10	1.00	1.00	1.00	1.05	1.00
Minimum	0.02	0.00	0.44	0.56	0.83	0.00	0.42	0.52
Std. Dev.	0.07	0.42	0.19	0.11	0.05	0.41	0.19	0.12
Skewness	0.90	-1.31	-0.79	-1.24	-0.54	-1.28	-0.65	-0.92
Kurtosis	3.22	2.70	2.29	3.73	2.41	2.67	2.12	2.91
Jarque-Bera	10.20	21.58	9.46	20.74	4.70	20.68	7.61	10.55
Probability	0.01	0.00	0.01	0.00	0.10	0.00	0.02	0.01

Sum	8.57	58.00	63.29	68.61	71.39	55.72	60.27	65.43
Sum Sq. Dev.	0.41	13.15	2.61	0.84	0.16	12.24	2.55	1.08
Observations	75	75	75	75	75	75	75	75

Source: Data processed by researchers (2026)

Based on Table 7, the results of the descriptive statistical analysis are explained as follows:

1. Firm Performance (Y)

   Variable Firm Performance shows an average value (Mean) of 0.1143, with a range between 0.0160 and 0.3037. The standard deviation of 0.0743 indicates that data fluctuations are relatively low, suggesting that the data points tend to cluster closely around the mean.
2. Independent Variables (X1, X2, X3)
   a. Sustainability Committee (X1): Has a mean of 0.7733 with a standard deviation of 0.4215. The median value of 1.000 indicates that the majority of the data is situated at the upper limit of the measurement scale.
   b. Competitive Business Strategy (X2): Shows a mean value of 0.8439 with a narrower distribution compared to X1 (Std. Dev = 0.1879). The recorded maximum value is 1.100, and the minimum is 0.440.
   c. Carbon Emission Disclosure (X3): Has the highest mean among the primary independent variables at 0.9148. With a small standard deviation (0.1066), this variable exhibits the highest level of data consistency compared to X1 and X2.
3. Green Intellectual Capital (Z)

   Variable Green Intellectual Capital serves as the moderating variable, with a mean value of 0.9518 and an exceptionally low standard deviation (0.0459). This indicates that the data for variable Green Intellectual Capital is highly homogeneous, showing very little variation across the sample.
4. Moderation Interactions (X1Z, X2Z, X3Z)

   The interaction variables represent the product of the independent variables and the moderating variable to examine indirect effects:
   a. Interaction Variable X1Z: Has a mean value of 0.7429. Its distribution pattern follows the characteristics of X1, with a negative Skewness value (-1.275) and a significant Jarque-Bera value (p = 0.000), indicating a wide variance and a non-normal distribution within this interaction.
   b. Interaction Variable X2Z: Shows a mean value of 0.8036, a median of 0.8622, and a standard deviation of 0.1855, reflecting a moderate level of dispersion. The maximum value of 1.0500 indicates an increase in value after interacting with Z.
   c. Interaction Variable X3Z: Recorded the highest mean among the three interaction variables at 0.8724. This suggests a strong contribution from the combination of X3 and Z within the model. The standard deviation of 0.1210 is the lowest among the interaction variables, signifying that the X3Z data is highly consistent with low volatility.

Hypothesis Testing
t-test (Partial Test)

According to Basuki (2016) the T-test can determine the partial influence of each independent variable, which is shown in the coefficient table. Acceptance or rejection of the influence of the independent variable on the research hypothesis can be read from the testing criteria, namely if the calculated T value > the T table value, and the significant probability < 0.05, then H0 is rejected and H1 is accepted. Meanwhile, if the calculated T value < the T table value, and the probability > 0.05, then H0 is accepted and H1 is rejected.

Table 8. t-Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.209881	0.131186	-1.599868	0.1141
X1	-0.005370	0.016884	-0.318052	0.7514
X2	0.136144	0.056842	2.395106	0.0193
X3	0.144752	0.059907	2.416295	0.0183
Z	0.085121	0.135434	0.628506	0.5317

Source: Data processed by researchers (2026)

Based on the summary results in Table 8, the Sustainability Committee variable (X1) has a coefficient value of -0.005370 with a significance level (Prob.) of 0.7514. Because this probability value is well above the 0.05 threshold (0.7514 > 0.05), the Sustainability Committee does not have a significant influence on company performance (Y). In contrast, the competitive business strategy variable (X2) has a coefficient value of 0.136144 with a significance level of 0.0193. Since this probability value is less than 0.05 (0.0193 < 0.05), a competitive business strategy has a positive and significant effect on company performance. Similarly, carbon emission disclosure (X3) also has a positive and significant effect on company performance, as evidenced by its coefficient value of 0.144752 and a significance level of 0.0183 (0.0183 < 0.05).

F Test (Simultaneous Test)

The F-test is used to examine the influence of independent variables on the dependent variable simultaneously. The significance value is used to determine this test. If the regression test results show a significance value of less than 0.05, then the independent variables simultaneously influence the dependent variable (Bawono, 2006). The following are the results of the F test:

Table 9. F Test Results

Weighted Statistics			
R-squared	0.341081	**Mean dependent var**	0.035401
Adjusted R-squared	0.272239	**S.D. dependent var**	0.038888

S.E. of regression	0.033175	**Sum squared resid**	0.073737
F-statistic	4.954529	**Durbin-Watson stat**	1.468157
Prob(F-statistic)	0.000148		

Source: Data processed by researchers (2026)

Based on the results of the statistical tests in table 9 that have been carried out, it can be concluded that the regression model in this study is declared fit and has good predictive validity. This is evidenced by the F-statistic value of 4.954529 with a significance level of 0.000148, which is below the threshold of 0.05. These results indicate that simultaneously, the variables of Sustainability Committee , Competitive Business Strategy , and Carbon Emission Disclosure with Green Intellectual Capital as a moderating variable, have a significant influence on Company Performance. However, although together (F Test) they have an effect, individually there may be variables that are not dominant in influencing performance.

Coefficient of Determination Test (R^2)

According to Ghozali (2016), this test is used to see the influence between independent variables on the dependent variable. The value of R2 is $0 \leq R2 \leq 1$. If the R2 value is low, the independent variable's ability to explain the dependent variable is very limited. Conversely, if the R2 value is high, the regression model is good.

Table 10. R^2 Test Results

Weighted Statistics			
R-squared	0.341081	**Mean dependent var**	0.035401
Adjusted R-squared	0.272239	**S.D. dependent var**	0.038888
S.E. of regression	0.033175	**Sum squared resid**	0.073737
F-statistic	4.954529	**Durbin-Watson stat**	1.468157
Prob(F-statistic)	0.000148		

Source: Data processed by researchers (2026)

Based on the results, the R-squared value was obtained at 0.341081 and the Adjusted R-squared value was 0.272239. The Adjusted R-squared value of 0.272239 indicates that the contribution or proportion of the influence of the independent variables (Sustainability Committee , Competitive Business Strategy, and Carbon Emission Disclosure) included in the model on the variation in the rise and fall of the dependent variable (Company Performance) is 27.22%. Meanwhile, the remaining 72.78% is explained by other factors outside this research model.

Moderate Regression Analysis (MRA) Test

According to Ghozali (2016), the approach used in the MRA test is an analytical approach that provides a basis for controlling the influence of moderating variables and maintaining sample integrity.

Table 11. MRA Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.091908	0.054963	-1.672196	0.0989
X1Z	-0.010695	0.017855	-0.598970	0.5511
X2Z	0.114287	0.056405	2.026194	0.0465
X3Z	0.140196	0.058289	2.405178	0.0188

Source: Data processed by researchers (2026)

Based on the Moderated Regression Analysis (MRA) test shown in Table 11, the influence of the interaction variables on company performance can be explained as follows. The interaction variable between the Sustainability Committee and Green Intellectual Capital (X1Z) has a coefficient value of -0.010695 with a significance value (Prob.) of 0.5511. Because this significance value is greater than 0.05, it can be concluded that Green Intellectual Capital is not able to moderate the influence of the Sustainability Committee on company performance. In contrast, the interaction variable between Competitive Business Strategy and Green Intellectual Capital (X2Z) has a positive coefficient of 0.114287 with a significance value of 0.0465. Since this significance value is less than 0.05, the hypothesis stating that Green Intellectual Capital moderates the influence of Competitive Business Strategy on company performance is accepted. Similarly, the interaction variable between Carbon Emission Disclosure and Green Intellectual Capital (X3Z) shows a positive coefficient value of 0.140196 with a significance value of 0.0188. Because this value is less than 0.05, it can be concluded that Green Intellectual Capital significantly moderates the effect of Carbon Emission Disclosure on company performance.

DISCUSSION

The Influence of the Sustainability Committee on Company Performance (H1)

Based on the partial t-test results, the Sustainability Committee variable shows a coefficient value of -0.005370 with a significance level of 0.7514. Because this probability value is much greater than 0.05, it can be concluded that H1 is rejected, which means the existence of a sustainability committee does not have a significant effect on company performance (ROA) in the JII70 sample for the 2020-2024 period.

From the perspective of Stakeholder Theory, these results suggest that the Sustainability Committee in JII70 companies may currently serve a "symbolic" rather than a "substantive" role. While the theory posits that such committees should satisfy stakeholder interests, in this sample, the committee appears to be a mere administrative compliance function a phenomenon known as *decoupling*. The committee exists to maintain public legitimacy but has not yet integrated into the core operational processes that drive cost efficiency. Consequently, the costs associated with maintaining such a committee outweigh its immediate financial contributions to ROA.

The results of this study align with those of Rini (2024), who reported a negative short-term impact after regulation. However, the argument put forward here is that

in the long run, the strategic benefits of improved governance will outweigh the initial compliance costs. However, these results differ from those of Rosyidah & Ningsih (2025) and Almulhim & Metwally (2025), who found a positive relationship between the presence of an ESG/SC committee and sustainability performance and firm value . This difference is likely due to the role of sustainability committees in JII70 companies being more focused on environmental risk management than on profitability strategies.

The Influence of Competitive Business Strategy on Company Performance (H2)

The test results show a positive coefficient value of 0.136144 with a significance level of 0.0193. Because the significance value is smaller than 0.05, H2 is accepted, which proves that Competitive Business Strategy has a positive and significant effect on company performance.

These findings provide strong empirical support for the Resource-Based View (RBV), where companies with a sharp competitive strategy are able to manage and deploy their internal resources uniquely and efficiently to achieve superior performance. The company's ability to differentiate itself or operate at low costs creates a competitive advantage that is difficult to imitate, which then accumulates in the form of increased Return on Assets (ROA). In the context of the non-service industry in JII70, management's ability to spur asset turnover to generate sales is a manifestation of superior asset exploitation capabilities. This operational efficiency directly contributes to profitability because it implies optimal utilization of production capacity.

The results of this study are in line with the findings of Kılıç (2022) and Rahmatika (2018), who stated that competitive strategy, whether through cost leadership or differentiation, is a key determinant in maintaining stable financial performance amid market turbulence. However, these results provide further clarity compared to the previous study by Aryani et al. (2023), which found insignificant results.

The Effect of Carbon Emission Disclosure on Company Performance (H3)

The Carbon Emission Disclosure variable has a positive coefficient value of 0.144752 with a significance level of 0.0183. These results indicate that H3 is accepted, so transparency in disclosing carbon emissions is proven to have a real positive impact on company performance (ROA) .

This reinforces the implementation of Stakeholder Theory. Companies that voluntarily disclose their carbon emissions are deemed to have met the expectations of green stakeholders (investors, government, and society). This disclosure acts as a positive signal that reduces information asymmetry. A positive market response enhances the company's reputation, which indirectly impacts consumer loyalty and investor confidence, thereby increasing profitability.

In the JII70 issuers, compliance with environmental principles is also considered aligned with sharia values (Maqasid Shariah), thus providing added moral value to the company. This finding is supported by research by Salsa & Tohir pohan (2022) and Lu et al. (2021) who found a similar positive effect. Furthermore, these results explicitly challenge the negative findings of Willy Sri Yuliandhari & Rezma

Aulia Ramadhanty (2024) and the insignificant findings of Jamilah (2021) and Ladista et al. (2023).

The Influence of the Sustainability Committee on Company Performance moderated by Green Intellectual Capital

Based on the results of the MRA test, the interaction variable X1Z has a coefficient value of -0.010695 with a significance value of 0.5511. Because the significance value is greater than 0.05, H4 is rejected, which means that Green Intellectual Capital (GIC) is unable to moderate the influence of the Sustainability Committee on company performance. This indicates that the existence of green intellectual capital does not strengthen or weaken the role of the sustainability committee in improving financial performance in the sample companies .

In the framework of Stakeholder Theory, the failure of Green Intellectual Capital (GIC) to moderate this relationship indicates a "structural gap." While the Sustainability Committee sets high-level policies, GIC (the knowledge and green systems of employees) operates at a technical level. The insignificance suggests that the sample companies have not yet synchronized their top-down governance (SC) with their bottom-up intellectual assets (GIC). Without this synergy, the committee's policies remain administrative and fail to leverage the company's green knowledge to create profit-generating efficiencies.

This aligns with the arguments of Hakki et al. (2024) and Pratiwi & Chariri (2021) that governance structures often experience a decoupling between top-level policies and lower-level intellectual capital practices. This lack of moderating influence reinforces the view that the synergy between governance (SC) and intangible assets (GIC) has not yet reached an equilibrium point to simultaneously boost financial performance.

The Influence of Competitive Business Strategy on Company Performance moderated by Green Intellectual Capital

Based on the results of the Moderated Regression Analysis (MRA) test, the interaction variable between Competitive Business Strategy and Green Intellectual Capital (X2Z) shows a positive coefficient value of 0.114287 with a significance value (Prob.) of 0.0465. Because the significance value is smaller than 0.05, H5 is accepted. This proves that Green Intellectual Capital (GIC) is significantly able to moderate and strengthen the positive influence of Competitive Business Strategy (CBS) on company performance (ROA).

These findings provide strong empirical support for the Resource-Based View (RBV). According to RBV theory, companies can achieve superior performance if they are able to manage Valuable, Rare, Inimitable, and Non-substitutable (VRIN) resources. In this context, a Competitive Business Strategy that focuses on asset efficiency is a strategic resource. However, when this strategy is supported by Green Intellectual Capital, which includes employee green knowledge (human capital), environmental management systems (structural capital), and good relationships with environmentally friendly partners (relational capital), the resulting efficiency becomes much more optimal.

This result is in line with the logic of Chen (2008) research. which states that green intellectual capital is key to increasing corporate competitiveness in an

increasingly environmentally conscious market. This research also supports the findings of Rahmatika (2018) and Kılıç (2022), who emphasized that business strategy will have a more substantial impact on financial performance if supported by relevant organizational knowledge capacity. However, these results provide a new contribution that clarifies the findings of Hakki et al. (2024). In Hakki's study, it was found that GIC does not moderate the effect of competitive business strategy on company performance.

The influence of carbon emission disclosure on company performance moderated by green intellectual capital

The test results of the X3Z interaction variable show a positive interaction coefficient of 0.140196 with a significance value of 0.0188. These results prove that H6 is accepted, where GIC significantly strengthens the influence of carbon emission disclosure on company performance. When high emission disclosure is supported by a strong GIC, investors feel confident that the report is not just greenwashing, but is supported by real intellectual capacity to run a low-carbon business. The existence of a strong GIC provides credibility to the disclosure report, thereby increasing the trust of sharia investors in JII70 which leads to an increase in the company's economic value.

This finding Resource-Based View (RBV). GIC provides the "credibility" behind the "signal" of carbon disclosure. When a company discloses low emissions and possesses high GIC, stakeholders perceive the report as authentic rather than "greenwashing." Investors in the JII70 index who prioritize ethical and sustainable practices respond more favorably when transparency is backed by the actual intellectual capacity to manage a low-carbon business. This combination creates a multiplier effect, where GIC transforms environmental responsibility into a tangible economic competitive advantage.

These findings support Chen (2008) research, which states that GIC is a determinant factor in transforming environmental responsibility into economic competitiveness. These results also expand the theory that in the Indonesian Islamic capital market, the combination of transparency (CED) and intellectual capital quality (GIC) creates a multiplier effect on corporate financial performance. However, these findings differ from those of (Hakki et al., 2024). In their research, Hakki found that GIC was unable to moderate the effect of carbon emission disclosure on corporate performance. This difference in results is strongly suspected to stem from differences in sample characteristics and observation periods.

CONCLUSION

Based on the results of data analysis and discussion regarding the influence of independent variables on company performance in JII70 issuers for the 2020-2024 period, it can be concluded that Competitive Business Strategy and Carbon Emission Disclosure have a significant positive effect on company performance (ROA), while the Sustainability Committee does not show a significant effect. The use of Green Intellectual Capital (GIC) has been proven to effectively strengthen the influence of competitive strategy and emission disclosure on profitability, but GIC is unable to moderate the relationship between the sustainability committee and company performance. This confirms that efficient asset utilization and carbon transparency

supported by internal green intellectual capacity are the main keys to increasing the economic value and reputation of companies in the eyes of stakeholders. Theoretically, this study reinforces the Resource-Based View (RBV) by demonstrating that GIC acts as a vital "complementary asset" that boosts competitive strategy, while also highlighting a "decoupling" phenomenon in Stakeholder Theory, where formal governance structures like sustainability committees often remain symbolic and disconnected from technical green assets. Practically, these findings imply that management should focus on integrating green knowledge (GIC) into operational strategies rather than merely forming committees for compliance, while investors should view carbon disclosure as a credible signal of long-term financial health when backed by strong organizational intellectual capital. Finally, future research should investigate methods to enhance the functional role of sustainability committees, moving them beyond administrative compliance toward policy implementations that directly impact cost efficiency, and explore the integration mechanisms between top-level governance and lower-level intellectual capital to bridge the current structural gap.

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