The Corporate Sustainability Performance In Indonesia

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ARTICLE INFO	ABSTRACT
	The purpose of this study is to investigate how organizational citizenship behavior, psychological capital, and employee engagement affect accountant performance. Additionally, it looks at how Artificial Intelligence (AI) influences this relationship and acts as a moderating element. In this investigation, primary data was gathered through the distribution of questionnaires and the research sample consisted of 323 accountants, including individuals from CPA firms and company accounting departments. Furthermore, Smart PLS was utilized to examine the collected data. The obtained results established that (1) The performance of accountants was significantly improved by psychological capital. (2) On accountant performance, employee engagement had no discernible beneficial impact. (3) Organizational Citizenship Behavior significantly positively influenced accountant performance. (4) AI significantly improved the performance of accountants. (5) AI was unable to effectively moderate, the effect of psychological capital on the performance of accountants. (6) AI successfully mediated the link between accountant performance and employee engagement. (7) AI weakens the positive influence of Organizational Citizenship Behavior on accountant performance. This research contributes to the advancement of measuring Organizational Citizenship Behavior (OCB) by introducing two additional dimensions namely ethical leadership and workload. Psychological Capital, Employee Engagement, Organizational Citizenship Behavior (OCB), and AI were found to have the potential to improve accountant performance. Specifically, these factors had a direct, positive, having a statistically meaningful impact on the version for accountants. Based on this understanding, companies aiming to improve accountant performance can consider strategies such as enhancing Organizational Citizenship Behavior, maximizing Psychological Capital, leveraging AI, and fostering collaboration between AI and Employee Engagement. The results obtained from this research are based on a survey conducted among millennial generation accountants from CPA firms and company accounting departments in Indonesia. Consequently, the outcomes should not be broadly applied to other company types. In accordance, the present investigation lacks specific data concerning the extent of the use of AI in the day-to-day responsibilities of individual accountants. Considering this limitation, future research could conduct an in-depth exploration of the varied uses of AI within the context of the subject matter.

Keywords: Green Intellectual Capital, Green Strategy, Sustainability Performance, Company Size, Company Age. |

Introduction:

Green intellectual capital is increasingly vital in developing environmentally conscious businesses (Zahid et al., 2018). Green intellectual capital is essential in shaping company performance (Pourmozafari et al., 2014), highlighting the need for competitive and comparative advantages in today's fiercely competitive markets.

Green human capital has positive impacts on sustainable performance (Malik et al., 2020). Pan et al. reveal a nuanced effect of different green capital types on sustainable competitive advantage (Pan et al., 2021). Additionally, studies underscore the positive influence of business strategies on overall company performance Dwianika & Gunawan, 2020). Domingues et al. highlights sustainable reporting practices' transformative potential on internal organizational processes, influenced by stakeholder roles and effective business strategies crucial for sustainability (Domingues et al., 2017). The global impact of environmental conventions, consumer environmentalism, and the evolving competitive landscape (Chang et al., 2019) underscores companies' need to integrate environmental management into their operations (Detthamrong et al., 2017). This necessitates a comprehensive approach to organizational green management, addressing all operational aspects (Chang et al., 2019). Governments worldwide promote environmental protection and sustainable development, emphasizing the importance of sustainability initiatives (Camisón-Haba et al., 2022). The role of sustainable leadership and green accounting in influencing financial performance and sustainable development is increasingly recognized (Fatoki, 2021; Ionescu et al., 2014).

Moreover, green business strategies drive innovation and environmental stewardship, reinforcing the link between green motives and sustainable development (Yousaf et al., 2021). Motivated by gaps in existing research and the need to contextualize findings within the Indonesian business landscape, this study seeks to explore the influence of green intellectual capital and green strategy on sustainability performance post-2022, aiming to provide insights that can inform sustainable business practices in the future. Control variables such as company size and age are considered to provide a comprehensive understanding of the factors influencing sustainability performance.

Literature Review:

Stakeholder Theory

Stakeholder theory has been widely discussed in management literature since Freeman defined stakeholders as any group or individual that can influence or be influenced by an organization's goals (Freeman et al., 2010). Donaldson and Preston (2021) broadly categorize stakeholder theory into three categories: descriptive, instrumental, and normative. Barney & Harrison (2020) further elaborate on stakeholders, distinguishing between primary and secondary stakeholders. Primary stakeholders include shareholders, investors, employees, consumers, and suppliers, while secondary stakeholders influence or are influenced by the company but do not engage in transactions with it. Both primary and secondary stakeholders require attention from companies to ensure that company activities provide value to their stakeholders.

Legitimacy Theory

Legitimacy is the perception or assumption that an entity's actions are desirable, proper, or consistent with the normative system, values, beliefs, and definitions developed socially (Suchman, 1995). Legitimacy is crucial for companies as societal legitimacy is a strategic factor for their future development. O'Donovan (2002) views organizational legitimacy as something granted by society to companies and something that companies seek or desire from society. Legitimacy represents a management system prioritizing societal, government, individual, and community group interests (Gray, 2010). Thus, company operations must align with societal expectations as a system that prioritizes societal interests. According to Deegan, legitimacy can be attained when a company's existence does not conflict with or is congruent with the existing value system in society and the environment (Deegan, 2002). Any shift towards incongruence threatens a company's legitimacy. Legitimacy theory is linked to variables such as green human capital and sustainability performance, as their activities involve considering and preserving the environment to ensure the company's continuous development and operation without harming society (Ekadjaja et al., 2019).

Development of Sustainability Performance Measurement

Sustainability performance is a report containing financial and non-financial information, including social and environmental activities, enabling companies to grow sustainably (Elkington, 1997). According to the Global Reporting Initiative in 2020 (GRI, 2020), a sustainability report is published by companies or organizations relating to the economic, environmental, and social impacts of their daily operations. Such a report presents the values and corporate governance models, demonstrating the relationship between the company's strategies and commitments to sustainable economics. While most business practices focus on the triple bottom line—economic, environmental, and social pillars—Dos Santos et al. (2014) apply a "fivefold bottom line" approach, including economic, social, environmental, transformation, and communication indicators, which are more suitable for Indonesia.

Green Intellectual Capital

Green intellectual capital refers to the total stock of intangible assets, knowledge, skills, relationships, etc., related to environmental protection or green innovation at a company's individual and organizational levels. It comprises green, structural, and relational human capital (Chen, 2008). Intellectual capital is the knowledge resource a company collectively possesses and uses to take action (Dumay & Garanina, 2013).

Green Strategy

According to Ginsberg & Bloom, green strategy is categorized into four types: lean strategy, defensive strategy, shaded strategy, and extreme strategy (Ginsberg & Bloom, 2004). Extreme green companies adopt a holistic philosophy, integrating environmental issues fully into their business and product life cycles. They often serve niche markets and sell their products and services through specialized channels (Spencer & Ginberg, 2011).

Company Size

Internal factors affecting efficiency include company characteristics and size as a proxy (Badunenko et al., 2006). Hauner states that bank size affects efficiency in two ways: 1) if bank size is positively related to market power, larger banks show lower input costs, and 2) the possibility of increasing returns to scale, where the input-to-output ratio decreases due to increased company costs, originating from fixed costs. Increasing returns to scale may stem from fixed costs (Hauner, 2004). Subandi and Ghozali (2014) analyze factors influencing the operational efficiency of banks in Indonesia, including total assets as a proxy for company size.

Company Age

Company age refers to the duration of an organization or business entity pursuing profit or income objectives. Company age indicates the company's ability to survive and compete (Durand & Coeurderoy, 2001), and company age is part of documentation showing what the company is currently and will achieve.

Conceptual Framework:

The Influence of Green Intellectual Capital on Sustainability Performance

Green intellectual capital is a critical resource or asset for companies as strategic capital for organizational development, including leadership, employee engagement, organizational learning and research, and more (Ehnert et al., 2013). Green intellectual capital is crucial as a reference and decision support, as well as resource allocation based on long-term corporate goals emphasizing social and environmental awareness within the company's internal environment, supported by leadership, employee motivation to act, and literacy in leadership, training, management skills, and full employee engagement (Lipoti et al., 2019). Education, training, and promoting environmentally friendly human resources can be conducted top-down to facilitate good performance implementation (Chen, 2008). Furthermore, relational capital as part of intellectual capital includes knowledge about business networks, relationships with customers and suppliers, and government or industry, which are part of the implementation of green intellectual capital dependent on the responses of these parties (Murtadlo, 2021). Well-managed environmental management systems capable of reducing unnecessary energy and material consumption waste help improve productivity and influence product prices and services to the public, as well as building a positive corporate image (Weil, 1985) because they represent the desires of the public and stakeholders (Freeman et al., 2010) who expect companies to act correctly (Suchman, (1995). Green Intellectual Capital positively affects voluntary carbon emission disclosures, while Intellectual Capital Disclosure positively affects sustainable business (Saraswati & Candra Inata, 2021).

Furthermore, green intellectual capital positively impacts increasing company value (Puspita & Wahyudi, 2021). Further, Green intellectual capital has a positive effect on business sustainability (Yusliza et al., 2020) because green intellectual capital is oriented toward environmental performance and has been proven to have a positive impact (Yadiati et al., 2019) on stakeholders (Freeman et al., 2010). Therefore, based on the above references, it can be argued that companies that increasingly implement green intellectual capital will also produce better sustainability performance, demonstrated by the company's increasing value in their businesses (Puspita & Wahyudi, 2021), because it indirectly reduces waste, efficiency, and financial performance. Thus, based on several facts and data obtained, research hypothesis one (H1) can be formulated as follows:

H1: Green intellectual capital has a positive effect on Sustainability Performance

The Influence of Green Strategy on Sustainability Performance

Green strategy is a documented action plan concerning goal achievement, policies implemented by organizations formulated as actions prioritizing environmental aspects to create financial efficiency as an indicator of sustainability performance (Olayeni et al., 2021) because environmental strategies positively influence environmental performance (Zailani et al., 2012). Green strategy has a positive effect on environmental performance, and Green strategy has a positive effect on operational performance (Huo et al., 2021). Green intellectual capital strengthens the relationship between green strategy and circular economy (Muafi. 2021), and further, Green strategy positively affects the natural environment (Calza et al., 2021). Green strategy positively affects green innovation (Soewarno et al., 2021), and green strategy positively affects green performance (Luu, 2020). Furthermore, the Green strategy positively affects sustainable development (Yang & Zhang, 2021) and influences sustainable corporate and financial performance (Rodríguez-González et al., 2021). A sustainable strategy positively affects sustainable performance (Yang et al., 2021). Based on the references above, it can be argued that companies that increasingly implement green strategies will also produce better sustainability performance, as demonstrated by the increasing company strategy in their

businesses (Yang et al., 2021). With the data obtained, research hypothesis two (H2) can be formulated as follows:

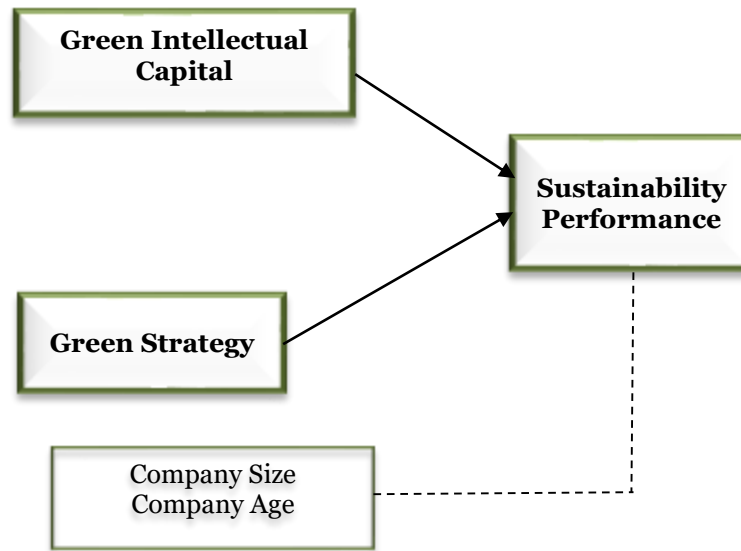**H2: Green strategy has a positive effect on sustainability performance**

Figure 1: Conceptual Framework

H1+
H2+

Methodology:
The research employs a comprehensive approach, utilizing cross-sectional and time series data collected from annual or sustainability reports of companies listed on the Indonesia Stock Exchange (IDX) during 2022. The unit of analysis focuses on the organizational level, examining data encompassing various dimensions of sustainability performance, including economic, social, and environmental aspects. The study adopts a quantitative research method, utilizing secondary data (Sugiyono, 2019) extracted from audited annual reports or sustainability reports of IDX-listed companies. This data is sourced from the IDX website.

Table 1: Instrument

Variable	Dimensions	Indicators	Reference
Psychological Capital	4	24	Luthan, 2007
Employee Engagement	3	14	UWES, 2014
Organizational Citizenship Behavior	9	49	Podsakaoff & MacKenzie et al, 2000
AI	9	17	Catherine Prentice et al, 2019
Work Ability	2	4	Gipson et al, 2009
Accountant Performance	3	18	Koopmans et al, 2014

Source: Data processed

Operational Definitions of Variables and Measurements
The dependent variable, sustainability performance, is the ability to meet current needs without compromising the ability of future generations to meet their needs. It encompasses economic, social, and environmental dimensions, each with specific indicators. The independent variables, green intellectual capital and green strategy, are operationalized into three dimensions, with indicators focusing on human, structural, and relational aspects of green intellectual capital and regulatory, customer-related, and public awareness aspects.

Data Analysis
Descriptive statistics will be used to summarize the collected data, including mean, minimum and maximum values, and standard deviation (Sugiyono, 2019). Multiple linear regression analysis will determine the

influence of green intellectual capital and green strategy on sustainability performance (Gunawan & Abadi, 2017). Assumption testing, including tests for normality, multicollinearity, autocorrelation, and heteroskedasticity, will be conducted to ensure the validity of the regression model (Ghozali, 2018). The coefficient of determination (R-squared) will measure how the model explains the variation in sustainability performance. Structural equation modeling (SEM) will analyze the relationship between variables (Hair et al., 2014).

Hypothesis Testing
Hypothesis 1 posits that green intellectual capital positively influences sustainability performance, while Hypothesis 2 suggests a positive relationship between green strategy and sustainability performance. These hypotheses will be tested using appropriate statistical methods, including examining regression coefficients and assessing significance levels (Hair et al., 2014).

Model Sensitivity Testing
Model sensitivity testing will be conducted to assess the measurement ability of variables after modifications. This involves creating a research model before including additional dimensions in sustainability performance. The initial sustainability performance measurement is based on economic, social, and environmental dimensions (Hair et al., 2014).

Results and Discussion:
Results
The data used in this study are secondary data consisting of Annual Reports (AR) or Sustainable Reports (SR) obtained from the IDX website and the respective company websites. The population in this study comprises companies listed on the Indonesia Stock Exchange (IDX). Samples were selected from this population using a purposive sampling method based on predefined criteria. This study was conducted in the year 2022. The sampling process is illustrated in Table 1 below:

Table 1: Research Sample Calculation

No.	Description	Number of Issuers
1.	Companies listed on IDX in 2022	712
2.	Companies listed on IDX in the Financial Sector	(105)
Total Sample		607

The descriptive statistics are presented in Table 2:

Table 1. Descriptive Statistics

Variable	N	Min	Max	Mean	Std. Dev
Green Intellectual Capital	607	0.20	0.38	0.21	0.03
Green Strategy	607	0.20	0.31	0.22	0.01
Sustainability Performance	607	0.20	0.34	0.20	0.02
Company Size	607	29	98,000	175	4,000
Company Age	607	1.00	45.00	13.65	11.33

Upon analyzing the results, it becomes evident that the mean values of various variables exhibit distinct patterns. For instance, the mean value of the competitive advantage variable is 0.26, surpassing the standard deviation of 0.10, while the mean value of the green intellectual capital variable is 0.21, exceeding the standard deviation of 0.03. Similarly, the mean value of the green strategy variable stands at 0.22, higher than the standard deviation of 0.01, whereas the mean value of sustainability performance reaches 0.20, surpassing the standard deviation of 0.02. Conversely, the mean value of company size is recorded at 175 billion, notably smaller than the standard deviation of 4,000 billion. Additionally, the mean value of company age is 13.65, surpassing the standard deviation of 11.33.

Further analysis reveals that the mean value of profitability is 0.06, lower than the standard deviation of 0.51, while the mean value of company value is 32.48, higher than the standard deviation of 18.65. These findings collectively suggest the data's reliability, as indicated by its low mean values, indicating homogeneity within the sample and a faithful representation of the overall dataset. Conversely, a higher standard deviation than the mean implies data heterogeneity, reflecting varying distributions and a notable deviation from the mean.

Table 2. Normality Test for Equation 1

N	Jarque Bera	Probability
607	230.1822	0.00000

The normality test conducted using the Kolmogorov-Smirnov method produced a non-significant result with

a p-value of 0.00000, below the significance level of 0.05. This indicates a departure from the assumption of normal distribution in the data, even after outlier testing. The test result does not meet the conventional criterion of a p-value below 0.05 for normal distribution according to classical assumption testing. However, this deviation can be deemed acceptable under the Central Limit Theorem (CLT) assumption, first proposed by Abraham de Moivre in 1733. The CLT states that the distribution of the sample mean approaches the normal distribution as the sample size increases. With a sample size of 607 companies, categorized as large in research, it can be inferred that there are no significant issues with the data assumptions in this study. Consequently, further data processing is warranted to proceed with hypothesis testing and draw meaningful conclusions.

Table 3. Multicollinearity Test

Variable	VIF
Green Intellectual Capital	1.827393
Green Strategy	1.830498
Company Size	1.002617
Company Age	1.002631

The multicollinearity test results indicate that all variables have Variance Inflation Factor (VIF) values below 10, indicating no multicollinearity issues.
The results of the heteroskedasticity test are shown in Table 5:

Table 4: Heteroskedasticity Test

Variable	Coefficient	Std. Error	t-Statistic	Probability
Constant	0.029520	0.003006	9.819117	0.0000
Green Intellectual Capital	0.232562	0.008355	27.83558	0.0000
Green Strategy	0.311238	0.015963	19.49691	0.0000
Company Size	0.000472	0.000359	1.314461	0.1892
Company Age	3.155811	1.142856	0.276135	0.7825

The heteroskedasticity test results indicate that the probability values for Green Intellectual Capital, Green Strategy, Company Size, and Company Age variables are all greater than 0.05. Specifically, the probability values are 3.1102, 5.4033, 0.1892, and 0.7825, respectively. Therefore, it can be concluded that there is no evidence of heteroskedasticity, or in other words, the data passes the heteroskedasticity test.

Table 5: Hypothesis Testing

Variable	Predicted Direction	Coefficient	Probability
Constant		0.052954	0.0000
Green Intellectual Capital	+	0.555626	0.0000
Green Strategy	+	0.193154	0.0000
Company Size		-0.000258	0.2747
Company Age		3.421466	0.0137
N Samples		607	
R-Squared		0.810175	
Adjusted R-Squared		0.808914	

In the regression equation for sustainability performance (SP), the coefficients are as follows: SP = 0.045128 + 0.556477(GIC) + 0.193571(GS) + e. Analyzing the results, the coefficient for Green Intellectual Capital (GIC) is 0.555626, supporting the hypothesis that GIC positively influences sustainability performance. This aligns with the first research hypothesis, which asserts a positive relationship between GIC and sustainability performance, as evidenced by the p-value of GIC being less than 0.05. Similarly, the coefficient for Green Strategy (GS) is 0.193154, indicating a positive impact on sustainability performance. This validates the second research hypothesis, which suggests a positive association between SH and sustainability performance, as the p-value of GS is less than 0.05. However, the coefficient for Company Size is -0.000258, indicating no negative effect on sustainability performance. The hypothesis regarding the relationship between Company Size and sustainability performance is rejected due to the p-value for Company Size being greater than 0.05. Additionally, the coefficient for Company Age is 3.421466, supporting the hypothesis that Company Age positively influences sustainability performance. This confirms the second control variable hypothesis, which proposes a positive effect of Company Age on sustainability performance, with the p-value of Company Age being less than 0.05.

Table 6: Sensitivity Test

Hypothesis	Causal Relationship	Main Test with Novelty	Test without Novelty
H1	GIC → SP	0.555626, 0.0000	0.866809, 0.0000
H2	GS → SP	0.193154, 0.0000	0.154094, 0.0913

In Table 7, the main test with novelty results in the acceptance of hypothesis 1, indicating that green intellectual capital positively impacts sustainability performance. Similarly, hypothesis 2 is accepted, indicating that the green strategy positively affects sustainability performance. However, in the test without novelty, hypothesis 1 is accepted, indicating a positive effect of green intellectual capital on sustainability performance. In contrast, hypothesis 2 is rejected, indicating no positive effect of the green strategy on sustainability performance.

Discussion

The results of hypothesis testing indicate that green intellectual capital has a significant and positive effect on sustainability performance, thus supporting the first research hypothesis. These statistical findings align with previous studies referenced in this research (Saraswati & Candra Inata, 2021; Puspita & Wahyudi, 2021; Yusliza et al., 2020; Yadiati et al., 2019; Oktris, 2019; Yusoff et al., 2019). These studies also concluded that a company's green intellectual capital positively contributes to its sustainability performance. Therefore, the better a company's green intellectual capital is, the better its sustainability performance will be.

This research supports stakeholder theory, which explains that every group or individual can influence or be influenced by organizational goals. Companies perform well and satisfy stakeholders with superior company resources (Freeman, 2010) [13]. This study also suggests that green intellectual capital is the most effective in interacting with stakeholders (Puspita & Wahyudi, 2021). Companies capable of implementing green intellectual capital can enhance sustainability performance by offering environmentally friendly products and services, reducing unnecessary energy and material consumption to improve productivity, affecting product and service prices in the public eye, and building a positive company image (Weil, 1985). Thus, green intellectual capital serves as valuable information used to generate assets, decision-making support, and resource allocation based on long-term company goals focusing on internal social and environmental awareness, leadership support, employee motivation, and literacy in leadership, training, management skills, and full employee involvement (Lipoti et al., 2019). Green intellectual capital can enhance a company's sustainability performance by having reliable human resources.

The current business landscape and regulations necessitate that companies not only master their comparative advantages but also strategic advantages, which are at the core of a company's performance in a highly competitive market. Competitive advantage can be achieved if management can manage the company's intellectual wealth, as exemplified by the Village Credit Institutions (LPDs), one of the financial institutions regulated by the Bali Governor's Regulation, owned and managed by Customary Villages. LPDs were established as an integrated part of Bali's culture due to the emergence of two types of villages in Bali: Customary Villages and Government Villages. The purpose of establishing LPDs is to improve the economy of the Balinese community while maintaining cultural elements. The existence of LPDs has successfully enhanced the entrepreneurial spirit of Customary Village communities and supported Bali's local art and culture. With the increasing number of Balinese people enthusiastically utilizing LPDs, it is essential to manage them properly to avoid harming the community.

Several companies have implemented green intellectual capital, including Unilever, Starbucks, IKEA, PT Sinar Sosro, Panasonic, The Body Shop, Apple, Dell, Adidas, and Nike, showcasing their application in their products. However, other companies with significant potential for environmental damage still need to be addressed. These potential environmental harm-emitting companies include PT Timah Tbk, PT Bumi Resources Minerals Tbk, PT Surya Esa Perkasa Tbk, PT Astra Agro Lestari Tbk, PT Energi Mega Persada Tbk, PT Indo Tambangraya Megah Tbk, PT Waskita Karya (Persero) Tbk, PT Harum Energy, PT Delta Dunia Makmur Tbk, PT Adaro Energy Indonesia Tbk, PT Indofood CBP Sukses Makmur Tbk, PT JAPFA Comfeed Indonesia Tbk, PT Gudang Garam Tbk, and PT Aneka Tambang Tbk.

Global agreements such as the Kyoto Protocol, the Paris Agreement, and other country-specific agreements have led to many companies worldwide adopting green initiatives more than ever before, given the alarming environmental challenges and issues. Companies are increasingly attempting to reduce their production waste at landfills and mitigate greenhouse gas emissions, providing a strong rationale for practicing environmentally friendly initiatives grounded in intellectual capital that emphasizes environmentally friendly knowledge. Besides benefiting the planet, utilizing sustainable materials in manufacturing, such as energy conservation and recycling, presents economic opportunities for businesses and communities. The advantages gained by companies with environmentally friendly business concepts benefit the environment, gain a positive public reputation, and enable companies to achieve higher profits through innovative initiatives.

The relationship between green intellectual capital and sustainability performance will influence stakeholders' expectations, including company owners, investors, employees, and the community, regarding the company's current and future performance related to economic, social, environmental, business transformation, communication, and technology management. Environmental-friendly human resource education, training,

and promotion can be conducted top-down to facilitate good performance implementation. Additionally, as part of intellectual capital, relational capital encompasses knowledge of business networks, relationships with customers and suppliers, and government or industry relations, contributing to the implementation of green intellectual capital dependent on the responses of these parties.

Regarding green intellectual capital with its three dimensions (green human capital, green structural capital, green relational capital) and 18 indicators of green intellectual capital, the three dimensions expressed by companies supporting sustainability performance are green human capital, green structural capital, and green relational capital. This is because these three dimensions have been balanced and comprehensively implemented, thus considered the main foundation in terms of human resources for long-term corporate sustainability. Thus, it is evident that green intellectual capital positively influences sustainability performance.

These research findings are further supported by the demographic data obtained from the entire sample of companies and content analysis results indicating that most companies disclose their sustainability-related information. The data spread in each research variable demonstrates specific characteristics and qualifications, as evidenced by mean values exceeding standard deviations. Classic assumption test results for multicollinearity and heteroscedasticity indicate a good fit. At the same time, normality testing does not meet the rule of thumb criteria, indicating a non-normal distribution according to classical assumption testing requirements. Nevertheless, these results can still be considered adequate using the Central Limit Theorem (CLT), which states that the sample mean distribution approximates a normal distribution as the sample size increases. Furthermore, a sufficiently large sample size can accurately predict the characteristics of a population.

In conclusion, the number of companies in the research sample have disclosed their data on average, indicating that companies gradually understand the importance of sustainability disclosure in their business practices. Moreover, the government has enforced regulations mandating companies to disclose their sustainability performance, as outlined in the Financial Services Authority Regulation No. 51/POJK of 2017 (POJK, 2017). This is reflected in the disclosure practices of companies, with the majority of content analysis disclosure values being 1 (one), indicating that companies understand the urgency and importance of gradually disclosing sustainability-related information in their reports.

CONCLUSION

In conclusion, the research findings highlight green intellectual capital and strategy's positive impact on sustainability performance. Despite encountering challenges in normality testing with data from 607 companies, the study successfully validates hypotheses one through five. However, the normality test using outlier tests produced statistically inadequate results, indicating the need for further investigation. Moreover, the reliance on subjective interpretation in content analysis, especially with large datasets, raises concerns about potential errors and misinterpretations affecting the research outcomes.

This study significantly contributes to advancing the field of management accounting, particularly in understanding sustainability performance, by enhancing measurement dimensions and indicators. Including business transformation, communication, and technology management underscores their substantial impact on competitive advantages. The research emphasizes the growing importance of sustainability reporting, now mandated by the Financial Services Authority regulation of 2021, which prioritizes sustainability for environmental and business sustainability. The study confirms the validity of using legitimacy theory and stakeholder theory in understanding the examined variables.

For practical implications, companies are encouraged to integrate business transformation, communication, and technology management elements into their sustainability and annual reports to achieve competitive advantages. Adding dimensions in sustainability performance modification introduces innovation to business strategies, prompting companies to consider environmental, social, economic, and technological aspects in their operational activities. Investors can utilize this information to make informed decisions, recognizing the significance of variables influencing competitive advantages and sustainability performance modifications for stakeholders.

Furthermore, the study affirms the significant impact of green intellectual capital and sustainability performance on competitive advantages, supporting the Financial Services Authority's regulation mandating annual and sustainability reporting for all issuers. It aligns with Presidential Regulation of the Republic of Indonesia Number 22 of 2021 concerning Environmental Protection and Management and Financial Services Authority Regulation No. 51 of 2017 on Sustainable Finance. Standardizing sustainability performance disclosure in reports is recommended to ensure transparency and accountability.

To address data distribution challenges, researchers should expand observational years to create panel data and subject it to multiple methods before conducting normality tests. Variable measurements could benefit from comprehensive interviews to ensure accuracy while incorporating control variables like company type for classification purposes could enhance the research's robustness and applicability.

Conflict of Interest
The authors declare no conflict of interest

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