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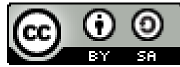

Relationship between Financial Performance ESG Score: An Empirical Analysis of Listed Companies on Indonesia Stock Exchange

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Abstract

This study investigates the relationship between financial performance—capital expenditure (CapEx) and revenue growth—and Environmental, Social, and Governance (ESG) scores in manufacturing companies listed on the Indonesia Stock Exchange (IDX). A panel data regression analysis was conducted using data from 21 firms selected through purposive sampling for 2018–2022. The results show that revenue growth significantly impacts ESG scores, with a coefficient of 1.023 ($p = 0.026$). This suggests that firms with higher revenue growth are more likely to achieve better ESG performance due to their greater financial flexibility to invest in sustainability initiatives. In contrast, CapEx negatively affects ESG scores, with a coefficient of -0.0014 ($p = 0.037$). This indicates that higher CapEx does not necessarily align with improved ESG performance, as such expenditures are often directed toward projects that may overlook environmental and social considerations. The findings underscore the importance of aligning financial strategies with sustainability goals. Companies experiencing strong revenue growth demonstrate better capacity to support ESG integration, while high CapEx investments, if not strategically aligned with sustainability, may hinder ESG progress. This study contributes to the literature on financial performance and ESG, offering insights for corporate decision-makers to balance growth and sustainability in their strategies.

Keywords: Capital Expenditure, Revenue Growth, ESG Score

Introduction

This study examines the relationship between financial performance, measured through capital expenditure (CapEx) and revenue growth, and Environmental, Social, and Governance (ESG) scores in manufacturing companies listed on the Indonesia Stock Exchange (IDX). Manufacturing companies, which play a pivotal role in Indonesia's economy, face the dual challenges of globalization and increasing awareness of sustainability issues. In this context,

these companies are expected to focus on short-term financial performance and consider the social and environmental impacts of their operations.

The manufacturing sector has witnessed growing attention to sustainability and corporate social responsibility (CSR) issues. ESG scores have become crucial for evaluating how companies manage their environmental, social, and governance impacts. A high ESG score reflects a company's commitment to stakeholders and serves as a positive signal to investors about the company's long-term viability (Friede, Busch, & Bassen, 2014). In recent years, companies with strong ESG scores have been associated with lower risks and greater attractiveness to investors, as they are perceived to be better equipped to address sustainability challenges and operate ethically ((Zheng, Siddik, Masukujjaman, & Fatema, 2021).

One factor influencing a company's ESG performance is capital expenditure (CapEx)—investments in acquiring or improving long-term fixed assets. Strategic CapEx can signify a company's commitment to sustainability-focused initiatives, such as developing environmentally friendly technologies or improving energy efficiency (Zheng, Siddik, Masukujjaman, & Fatema, 2021). Similarly, revenue growth, reflecting the company's ability to generate increased income over time, is critical for enabling further investment in projects that support sustainability objectives and enhance social and environmental performance.

However, the relationship between financial performance and ESG scores is not always linear. Studies suggest that companies that effectively manage CapEx and achieve stable revenue growth exhibit better ESG performance. This is because well-resourced and financially robust companies are more capable of allocating funds toward sustainability-focused projects (Buallay, 2020). Conversely, companies struggling to manage capital expenditures or achieve consistent revenue growth may face challenges in meeting increasingly stringent ESG demands.

Additionally, stakeholder theory, introduced by (Freeman, 1994), provides a fundamental framework for understanding the interplay between financial performance and ESG. This theory posits that companies must consider the interests of all stakeholders, including shareholders, employees, customers, and the broader community. Strong ESG management helps companies build a positive reputation among stakeholders, which, in turn, can lead to enhanced long-term financial performance (Melgarejo, 2019). Transparent ESG disclosure also plays a vital role in boosting investor confidence and reducing market risk (Zheng, Siddik, Masukujjaman, & Fatema, 2021)

Given the importance of the relationship between financial performance and ESG in the manufacturing sector, this study empirically examines whether there is a significant relationship between capital expenditure, revenue growth, and ESG scores among companies listed on the IDX. The research focuses on manufacturing firms listed from 2018 to 2022, utilizing data from annual financial reports and ESG-related information obtained from official sources, such as sustainability reports and reputable ESG data providers. A panel data regression approach is employed to analyze the relationship between these variables, considering both temporal and company-specific dimensions.

Literature Review

Shareholder-Stakeholder Theory

The shareholder theory emphasizes a company's responsibility to its shareholders, prioritizing maximizing financial value for its capital providers (Raynor, 2009). However, this theory has faced criticism for neglecting the interests of other parties that contribute to a company's success, such as the environment and society (Albarrak, 2019). To address these limitations, stakeholder theory, introduced by (Freeman, 1994), offers an alternative perspective, asserting that companies must consider all entities with claims, interests, or involvement in their operations. These include creditors, employees, customers, and local communities (Peter M. Clarkson, 2011)

Stakeholder theory expects managers to balance various stakeholders' interests to achieve economic objectives, such as profit maximization, and non-economic goals, such as legal compliance and ethical standards (Hart, 1996). (Clarkson, 1995) categorizes stakeholders into primary and secondary groups. Primary stakeholders are essential for a company's survival, while secondary stakeholders influence the company indirectly.

Companies accountable to their stakeholders and the environment can build a strong reputation, which is a valuable long-term strategic asset (Aboud, 2018). A positive reputation enhances credibility with consumers, enabling higher pricing, avoiding government sanctions, and reducing market risks (Husada, 2021). Accordingly, stakeholder theory supports a positive relationship between environmental performance and financial outcomes. Furthermore, ESG (Environmental, Social, and Governance)-based sustainability reporting helps maintain strong stakeholder relationships while aligning with corporate objectives.

Definition of ESG Environmental, Social, Governance)

ESG is a framework used to evaluate the sustainability and ethical impact of a company's business practices. It encompasses three main dimensions: environmental, social, and governance. The ESG score reflects a company's performance across these dimensions and is a tool for investors to assess sustainability-related risks and opportunities. According to (Eccles, Ioannou, & Serafeim, 2014), ESG scores provide critical information for stakeholders to evaluate a company's ability to manage environmental impacts, treat its workforce fairly, and maintain transparent governance.

Dimensions of ESG

The ESG framework consists of three key dimensions: Environmental (E): Assesses how companies manage their environmental impacts, including carbon emissions, energy efficiency, waste management, and resource utilization (Inawati, 2023). Social (S): Evaluates a company's responsibilities towards employees, communities, and other stakeholders. This includes human rights, labor practices, gender equality, and corporate social contributions (Melgarejo, 2019). Governance (G): Focuses on corporate governance aspects, including board diversity, anti-corruption policies, and management accountability to stakeholders (Buallay, 2020)

Significance of ESG Scores

ESG scores play a critical role in several business aspects. From an investment perspective, they assist investors in evaluating a company's sustainability and identifying risks that traditional financial statements may overlook (Clarkson, 1995). Strong ESG performance also enhances a company's reputation among consumers, business partners, and society, fostering trust and customer loyalty (Safriani, 2020). Research indicates a positive correlation between ESG performance and financial performance. Companies with high ESG scores tend to experience lower risks, better profitability, and greater appeal to investors (Friede, Busch, & Bassen, 2014)

Measurement of ESG Scores

Various rating agencies, such as MSCI, Sustainalytics, and Bloomberg, provide ESG scores. These agencies use diverse metrics to assess a company's policies, practices, and outcomes related to environmental, social, and governance dimensions. The assessments combine quantitative and qualitative data to assess a company's sustainability performance comprehensively. (Aboud, 2018)highlights that ESG scores provide deep insights for investors to understand non-financial risks critical to a company's future.

Challenges in ESG Scores

Despite their importance, measuring ESG scores presents several challenges. One major issue is the lack of standardization in assessment methodologies. Different rating agencies often employ varying approaches, leading to inconsistent scores for the same company (Chatterji, 2016). Additionally, greenwashing—where companies misrepresent ESG information to attract investors or enhance their image without genuine improvements—remains a serious concern.

Capital Expenditure (CaPex)

Capital Expenditure (CapEx) refers to the funds a company uses to acquire, upgrade, or maintain long-term assets such as buildings, equipment, and infrastructure. Unlike Operating Expenditure (OpEx), which covers daily operational costs, CapEx focuses on long-term investments to support business growth and sustainability (Criselda, 2021).

CapEx creates economic benefits over the long term. In accounting, such expenditures are recorded as assets on the balance sheet and subsequently depreciated over their useful lives. Examples include purchasing new machinery to increase production capacity or investing in technology to improve operational efficiency.

CapEx can be categorized into:

- Replacement and Maintenance: For replacing outdated assets or maintaining existing ones.
- New Investments: For expanding operations or entering new markets, such as building new facilities or developing new products.

Revenue Growth

Revenue Growth refers to the increase in a company's income over time. It is a crucial indicator of business performance, reflecting the company's ability to increase sales, expand market share, and attract new customers. (Hocky & Wijaya, 2024) Suggests that revenue growth demonstrates a company's success in meeting market demands and indicates the effectiveness of its marketing, operational, and product innovation strategies.

Key factors influencing revenue growth include:

- Marketing Strategies: Effectiveness in building brand awareness and attracting new customers.
- Product Innovation: Ability to introduce relevant products or services that meet market needs.
- Economic Conditions: Macro-economic factors include economic growth, inflation, and consumer purchasing power.
- Market Competition: Competitive positioning within the industry.

Metrics for measuring revenue growth include the Compound Annual Growth Rate (CAGR), which calculates average annual revenue growth over multiple years, and Growth Drivers Analysis, which identifies key factors such as sales volume and market contributions driving revenue growth.

Research Method

Research Approach

This study employs a quantitative approach using a panel data analysis model to examine the relationship between exogenous variables (revenue growth and capital expenditure) and endogenous variables (ESG score).

Population and Sample

The population of this study comprises manufacturing companies listed on the Indonesia Stock Exchange (IDX). 21 manufacturing companies were selected as the sample using a purposive sampling method based on the following criteria: Listed on the IDX throughout the observation period (e.g., 2018–2023). Complete data on capital expenditure, revenue growth, and ESG scores during the study are available—exclusion of companies with inconsistent or missing financial reports or ESG data.

This study utilizes secondary data: Annual Financial Reports of the sampled companies to collect data on capital expenditure and revenue growth. ESG data is sourced from Morningstar Sustainalytics, a reputable ESG data provider. The analysis was conducted using panel regression analysis, which combines cross-sectional data (e.g., company-specific data) and time-series data (e.g., yearly data). Panel data analysis was chosen to evaluate the relationship between the variables while accounting for both temporal and cross-sectional

dimensions. This method provides robust insights by incorporating variations across companies and over time.

Result

This study utilizes data from manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2018–2022. A total of 21 companies met the selection criteria based on the availability of complete data related to Capital Expenditure (CapEx), Revenue Growth, and ESG scores.

Table 1. summarizes the data of the analyzed companies.

NO	Code	Company Name	Capital Expenditure (miliar IDR)	Revenue Growth (%)	ESG Score
1	GGRM	PT Gudang Garam Tbk	4,800	4.5	43.56
2	CPIN	PT Charoen Pokphand Indonesia Tbk	3,200	7.5	44.48
3	TINS	PT Timah Tbk	1,500	3	45.06
4	MBMA	PT Merdeka Battery Materials Tbk	5,500	12.5	45.79
5	ESSA	PT ESSA Industries Indonesia Tbk	800	5	49.5
6	HRUM	PT Harum Energy Tbk	1,800	4.5	50.75
7	BRMS	PT Bumi Resources Minerals Tbk	900	15	51.12
8	ADMR	PT Adaro Minerals Indonesia Tbk	3,800	9.5	53.1
9	INDY	PT Indika Energy Tbk	4,800	6	35.8
10	INDF	PT Indofood Sukses Makmur Tbk	7,000	5	36.06
11	AMMN	PT Amman Mineral Internasional Tbk	7,500	12	37.41
12	NCKL	PT Trimegah Bangun Persada Tbk	4,200	7	38.4
13	PANI	PT Pantai Indah Kapuk Dua Tbk	1,000	3.5	39.64
15	ENRG	PT Energi Mega Persada Tbk	1,400	2	40.27
16	ANTM	PT Aneka Tambang Tbk	2,800	6.5	42.06
17	ADRO	PT Adaro Energy Indonesia Tbk	7,200	8	42.72
18	TKIM	PT Pabrik Kertas Tjiwi Kimia Tbk	1,500	3.5	30.38
19	DSNG	PT Dharma Satya Nusantara Tbk	2,200	4.5	32.03
20	ITMG	PT Indo Tambangraya Megah Tbk	5,000	5.5	33.55
21	MYOR	PT Mayora Indah Tbk	4,000	6.5	33.85
22	PTBA	PT Bukit Asam Tbk	5,800	7.5	33.87

Source: Processed data

The data reveal significant company variations regarding capital expenditure, revenue growth, and ESG scores. The average capital expenditure was IDR 4,012 billion, with the highest observed at PT Amman Mineral Internasional Tbk (IDR 7,500 billion) and the lowest at PT ESSA Industries Indonesia Tbk (IDR 800 billion). The average revenue growth was 6.36%, led by PT Bumi Resources Minerals Tbk (15%) and lowest at PT Energi Mega Persada

Tbk (2%). The average ESG score was 41.79, with the highest recorded by PT Bumi Resources Minerals Tbk (51.12) and the lowest by PT Pabrik Kertas Tjiwi Kimia Tbk (30.38).

Companies such as BRMS stand out due to their high revenue growth and top ESG scores, suggesting strong competitive potential in sustainability. Conversely, companies with high capital expenditures, such as AMMN, exhibited relatively low ESG scores, indicating potential areas for improvement in sustainability performance. These findings highlight the complex relationships between investment, growth, and sustainability across different sectors.

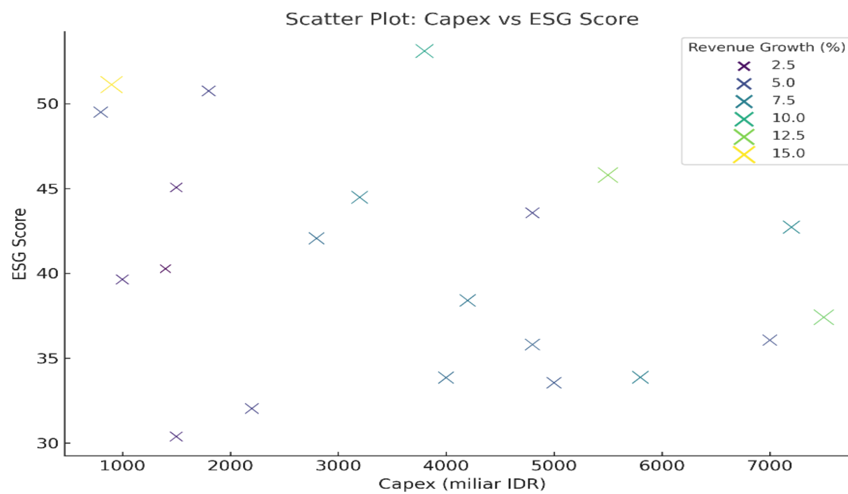

Figure 1. Scatter Plot of CapEx vs. ESG Score
Source: Processed data

The graph illustrates the relationship between companies' Capital Expenditure (CapEx) and ESG Scores. No clear pattern indicates a positive linear correlation between the two variables. Instead, there is a tendency for companies with higher CapEx to have relatively lower ESG Scores. Conversely, some companies with moderate to low CapEx appear to achieve higher ESG Scores.

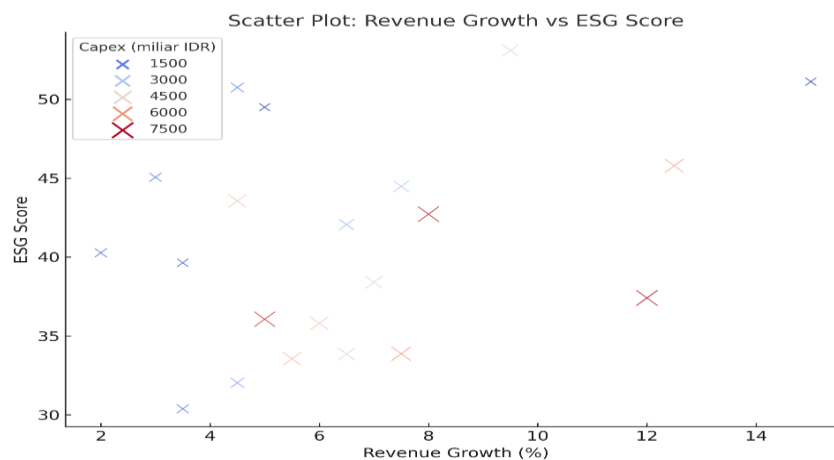

Figure 2. Scatter Plot of Revenue Growth vs. ESG Score
Source: Processed data

The graph reveals a clearer positive pattern between Revenue Growth and ESG Score. Companies with high Revenue Growth (above 10%) generally exhibit above-average ESG

Scores (>45). In contrast, companies with low Revenue Growth show more varied ESG Scores, ranging from high to low.

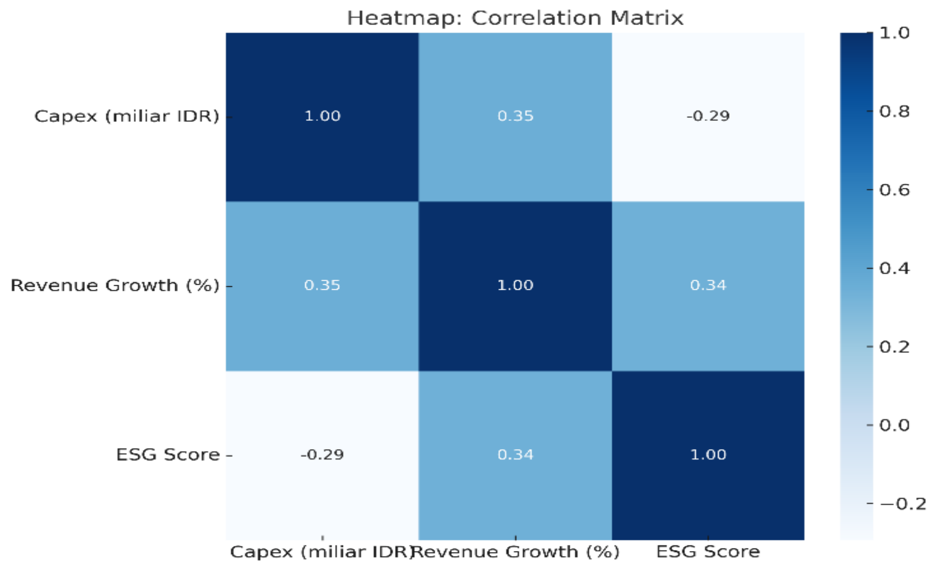

Figure 3. Heatmap of Correlation
Source: Processed data

CaPex vs ESG Score: Weak Negative Correlation

The weak negative correlation supports the results of the regression analysis and scatter plot, indicating that high Capex may potentially lower the ESG Score. The weakness of this relationship also suggests that other variables (such as industry sector or company strategy) may play a more dominant role.

Revenue Growth vs ESG Score: Moderate Positive Correlation

This correlation indicates a reasonably consistent relationship between Revenue Growth and ESG Score, as observed in the scatter plot and regression results. Companies with high Revenue Growth may be better positioned to invest in sustainability practices.

Capex vs Revenue Growth: Weak Correlation

This suggests that the level of Capex does not necessarily influence revenue growth, which may depend on the effectiveness of investment allocation.

Table 2. Regression Result

Parameter	Koefisien	P-value	Interpretation
Intercept (β0)	39.4392	< 0.01	The average ESG Score when other variables are 0.
Capex (β1)	-0.0014	0.037	Capex has a significant negative relationship.
Revenue Growth (β2)	1.023	0.026	Revenue Growth has a significant positive influence

Source: Processed data

Revenue Growth has a Significant Positive Impact on ESG Score

Revenue Growth has a significant positive effect on ESG Score, indicating that companies with higher revenue growth tend to have better ESG scores. The positive coefficient (1.023) suggests that for every 1% increase in revenue growth, the company's ESG score will increase by 1.023 points, assuming other factors remain constant. This positive relationship is statistically significant, as the p-value of 0.026 is lower than the standard significance level of 0.05.

Capital Expenditure has a Significant Negative Impact on ESG Score

Capital Expenditure (CapEx) shows a significant negative effect, which may suggest that high investments do not necessarily reflect improvements in ESG scores. The negative coefficient (-0.0014) indicates that for every 1 billion IDR increase in CapEx, the ESG score of the company will decrease by 0.0014 points, assuming other variables remain unchanged. This relationship is statistically significant, as the p-value 0.037 is below the 0.05 significance threshold.

Discussion

Revenue Growth has a significant positive influence on ESG Score, as indicated by the positive coefficient of 1.023 and a p-value of 0.026, below the standard significance level of 0.05. This suggests that companies with higher revenue growth tend to have better ESG scores. High revenue growth reflects financial stability and the ability to generate consistent profits, which enables companies to allocate resources towards sustainability initiatives such as investments in environmentally friendly technologies, social improvements, and good governance practices. Previous studies (Friede, Busch, & Bassen, 2014); (Eccles, Ioannou, & Serafeim, 2014) similarly find a positive relationship between financial performance and ESG scores, suggesting that growing companies are more capable of integrating ESG strategies due to their increased financial capacity.

Capex has a significant negative influence on ESG Score, with a negative coefficient of -0.0014 and a p-value of 0.037. This means that an increase in Capex by IDR 1 billion decreases ESG Score by 0.0014 points, assuming other variables remain constant. This negative relationship may seem counterintuitive, as large capital investments are typically associated with growth. However, high Capex is often allocated to projects that do not directly contribute to sustainability, such as the construction of new facilities or production capacity expansion. If these investments lack a focus on environmental and social factors, they can reduce the company's ESG score. For example, companies in extractive industries like oil and gas, which may have high Capex for exploration and development, often face higher environmental impacts, leading to lower ESG scores. (Peter M. Clarkson, 2011) large capital investments are not always positively correlated with environmental performance unless sustainability is prioritized. Conversely, (Hart, 1996) showed that strategically directed Capex for sustainability initiatives can yield long-term benefits. High Capex can also create financial

burdens, limiting a company's ability to implement additional ESG programs that require resources. This is especially true in traditional sectors like heavy manufacturing and energy.

Conclusion

This study explores the relationship between financial performance, specifically capital expenditure (CapEx) and revenue growth, and ESG (Environmental, Social, and Governance) scores in manufacturing companies listed on the Indonesia Stock Exchange (IDX). The findings reveal that revenue growth significantly impacts ESG scores, indicating that firms with higher revenue growth are better positioned to invest in sustainability initiatives. In contrast, CapEx shows a significant negative relationship with ESG scores, suggesting that high capital expenditure levels may not inherently support sustainability goals, especially when investments are not strategically aligned with environmental and social objectives.

The results underscore the complexity of balancing financial performance with sustainability. While revenue growth enhances the capacity to integrate ESG principles, high CapEx could divert focus from sustainability unless explicitly directed toward sustainable projects. These insights emphasize the need for firms to align their financial and investment strategies with broader sustainability goals to ensure long-term value creation.

References

Aboud, A. &. (2018). The impact of social, environmental and corporate governance disclosures on firm value: Evidence from Egypt. *Journal of Accounting in Emerging Economies*.

Albarrak, M. S. (2019). The Effect Of Carbon Dissemination On Cost Of Equity . *Business Strategy and the Environment*.

Buallay, A. H. (2020). Sustainability reporting and firm’s performance: Comparative study between manufacturing and banking sectors. . *International Journal of Productivity and Performance Management, 69(3*.

Chatterji, A. K. (2016). Corporate social responsibility ratings: The effect of measurement on firm performance. *Bussines Management*.

Clarkson, M. B. (1995). A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance. *The Academy of Management Review, 20(1)*.

Criselda, S. (2021). Analisis Faktor-Faktor yang Mempengaruhi Capital Expenditure. *Jurnal Ekonomi, SPESIAL ISSUE*.

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The Impact of Corporate Sustainability on Organizational Processes and Performance. *Management ScienceVol. 60, No. 11*.

Freeman, R. E. (1994). The Politics of Stakeholder Theory: Some Future Directions. *Business Ethics Quarterly*.

Friede, G., Busch, T., & Bassen, A. (2014). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment Volume 5, 2015 - Issue 4*.

Hart, S. L. (1996). An Empirical Examination of the Relationship Between Emission Reduction and Firm Performance. *Business Strategy and the Environment, 5(1), 30–37*.

Hocky, A., & Wijaya, E. (2024). The Effect Of Leverage, Revenue Growth, And Total Asset Turnover On Profitability Of Listed Companies In The Basic Materials Sector In Indonesian Stock Exchange Period 2017-2022. *Procuratio : Jurnal Ilmiah Manajemen*.

Husada, E. V. (2021). Pengaruh Pengungkapan ESG Terhadap Kinerja Keuangan Perusahaan (Studi Empiris Pada Perusahaan Sektor Keuangan Yang Terdaftar Di Bei Periode 2017-2019). *Jurnal Bina Akuntansi, 8(2)*.

Inawati, W. A. (2023). Dampak Environmental, Social, Dan Governance (ESG) Terhadap Kinerja Keuangan. *Jurnal Akademi Akuntansi*.

Lee, M. T. (2022). Understanding The Effect Of Enviroment, Social, and Governance Conduct On Financial Performance: Arguments For A Process And Integrated Approch Modelling. *Sustainable Technology and Entrepreneurship*.

Melgarejo, M. (2019). The impact of corporate governance on earnings quality: evidence from Peru. *Journal of Accounting in Emerging Economies, volume 9, issue 4*.

Peter M. Clarkson, Y. D. (2011). Does it really pay to be green? Determinants and consequences of proactive environmental strategies. *Journal of Accounting and Public Policy*.

Raynor, M. E. (2009). *The Strategy Paradox: Why Committing to Success Leads to Failure (and What to Do About It.* New York: Currency Doubleday.

Safriani, M. N. (2020). Pengaruh environmental, social, governance (ESG) disclosure terhadap kinerja perusahaan. *Journal of Accounting*.

Zheng, G.-W., Siddik, A. B., Masukujjaman, M., & Fatema, N. (2021). Factors Affecting the Sustainability Performance of Financial Institutions in Bangladesh: The Role of Green Finance. *Sustainability, 13(18)*.