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The Effect of ESG on Firm Value and Performance During Covid-19: Moderation Role of Industry Characteristic

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Abstract

The objective of this study was to examine the correlation between Environmental, Social, and Governance (ESG), corporate value and performance, with the aim of establishing a basis for assessing ESG. An independent variable is the ESG score. The variables that will be measured are firm value and performance. Firm performance will be assessed using return on assets (ROA), while firm value will be indicated by Tobin's Q. Industrial growth, which quantifies the development of industrial aspects, will serve as a moderator to harmonise the connection between the independent and dependent variables. Analysis of data indicates that ESG factors have a detrimental effect on company value. ESG improves the performance of enterprises. Moreover, the growth of the industry does not alleviate the connection between environmental, social, and governance (ESG) factors and the value of a business. The correlation between ESG and corporate success is mitigated by the growth of the industry.

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INTRODUCTION

Severe weather-related catastrophes not only put human lives at risk, but also have a substantial adverse effect and present a major obstacle to the global economy (WEF, 2023). Consequently, governments, businesses, and civil society organisations worldwide are closely monitoring the health, safety, and economic consequences of climate change (WEF, 2023). Climate change has had a detrimental impact on global industrial supply chains, resulting in reduced labour efficiency, business shutdowns, and environmental consequences. An increasing number of businesses are experiencing insolvency and financial crises, which are challenging their management systems and corporate governance. It is imperative for businesses related to the manufacturing sector to prioritise long-term growth and adaptation to climate change, as this sector would experience significant negative effects (Chen et al., 2022; Chidambaram & Khanna, 2022). Consequently, businesses have faced pressure from investors and stakeholders to enhance their social and environmental accountability (Maama and Apiah, 2019). Several investors hold the belief that non-financial investments can contribute to the establishment of a sustainable economy (Wu et al., 2022). Moreover, making investments based on Environmental, Social, and Governance (ESG) factors enables investors to steer clear of companies with low ratings (Agarwal et al., 2023). Environmental, social, and good governance, commonly referred to as "ESG," is of utmost importance for businesses and is also a prerequisite for investors and stakeholders. The adoption of environmental, social, and governance (ESG) practices is considered a strategic approach that can enhance a company's performance and value (Yu and Xiao, 2022; Bheenick et al., 2023). ESG is crucial for businesses, investors, and stakeholders due to its significance.

ESG, which stands for Environmental, Social, and Governance, is crucial for attaining economic growth while simultaneously safeguarding the environment. An illustrative example can be drawn from the manufacturing sector. The manufacturing sector makes a favourable contribution to the economic growth of Indonesia. Based on historical data, the manufacturing sector accounted for 17.33% of Indonesia's Gross Domestic Product

(GDP) in 2021, as reported by the Ministry of Industry of the Republic of Indonesia. Nevertheless, this sector exerts a detrimental influence on the environment as it derives advantages from the conversion of raw materials into final products, thereby causing pollution. The long-term repercussions of this adverse effect will become increasingly apparent as it gradually damages the environment. ESG (Environmental, Social, and Governance) is crucial for companies as it serves as the basis for ensuring that they uphold environmental protection while managing their revenue cycle. When evaluating ESG, it is necessary to consider external factors that directly influence the assessment, such as the characteristics of the industry. The inquiry pertains to the rate at which the industry is expanding. The growth of companies is undeniably impacted by their industrial environment (Arvidsson, 2022; Chang & Lee, 2022). The company's ESG assessment will vary based on the industry sector in which it operates. Consequently, this study aims to examine the impact of industry characteristics as moderating variables on the relationship between the level of environmental, social, and governance (ESG) factors and firm value and performance through empirical testing (Aydoğmuş et al., 2022; Rohendi et al., 2024).

Several prior studies yield divergent findings. Several studies have demonstrated a favourable correlation between Environmental, Social, and Governance (ESG) factors and the financial performance of companies (Maji and Lohia, 2022; DasGupta and Roy, 2023; Bheenick et al, 2023). Several studies have found a detrimental correlation between environmental, social, and governance (ESG) factors and firm performance, as demonstrated by Chen et al. (2022), Aggarwal et al. (2023), Mourad and Habib (2023), and Wasiuzzaman et al. (2022). Similarly, with respect to the impact of ESG on firm value, certain studies have found positive effects (Orellana et al., 2023; Rastogi & Singh, 2023; Yu and Xiao, 2022), while others have found negative effects (Behl et al., 2021; Shakil, 2021; Dincă et al., 2022). The samples utilised in this study consist of companies classified as LQ45 companies that are listed on the Indonesia Stock Exchange during the time frame of 2018-2022. The time frame from 2018-2022 captured the changes before the pandemic covid-19 and the post effect of the pandemic. The selection of samples is based on the potential for significant industrial growth in Indonesia. LQ45 is a compilation of Indonesian companies with significant market capitalization.

This study offers three key contributions. Firstly, it provides insights into the impact of Environmental, Social, and Governance (ESG) factors on the value and performance of high-growth companies in Indonesia. The study utilises the most recent data available, covering a period of five years from 2018 to 2022 (Chairani & Siregar, 2021). This study examines the impact of environmental, social, and governance (ESG) factors on the value and performance of companies. It also considers how industry characteristics, in line with sustainability and stakeholder theory, may moderate this relationship. Furthermore, it offers insights into the correlation between Environmental, Social, and Governance (ESG) factors and the value and performance of a company, considering industry characteristics as a moderating variable.

LITERATURE REVIEW

Environment, Social, and Governance (ESG) and Firm Value

According to the principles of sustainability theory, businesses that provide information about their environmental, social, and governance (ESG) practices can enhance their social standing and receive acknowledgment from the community, while also promoting their long-term growth (Baid & Jayaraman, 2022; Wu et al., 2022). Investors utilise ESG as a long-term investment strategy due to its ability to depict a company's present condition and potential hazards. Consequently, businesses that have high Environmental, Social, and Governance (ESG) scores are more prone to receiving recognition from authorities and are more likely to attract customers and investors (Agarwal et al. 2023). This enhances the company's ability to compete and strengthens its reputation. ESG disclosures enhance corporate transparency regarding governance, social, and environmental activities. This level of transparency presents managers, investors, and stakeholders with additional inquiries to contemplate to enhance their decision-making and evaluations. ESG enhances the quantity and calibre of accessible information (Li et al., 2023; Samy El-Deeb et al., 2023; Zhang & Chen, 2023).

Business performance is positively influenced by environmental, social, and governance factors, as demonstrated by studies conducted by Orellana et al. (2023), Rastogi and Singh (2023), and Yu and Xiao (2022). Orellana et al. (2023) conducted a study utilising data obtained from Refinitiv Eikon DataStream, which included information from a total of 219 oil and gas companies. Rastogi and Singh (2023) conducted a study using a sample of 34 Indian companies over a span of 10 years, from 2010 to 2019, resulting in a total of 340 data nts. Yu and Xiao (2022) conducted a study using a dataset of 3069 observations, which included 804 companies listed on the Chinese Shenzhen Stock Exchange and Shanghai Stock Exchange. The study covered the period from 2010 to 2019. According to their statement, there is a positive correlation between the level of implementation of Environment, Social, and Governance (ESG) practices and the value of a company. Therefore, the hypothesis is:

H_1 : ESG has a positive effect on firm value.

Environment, Social, and Governance (ESG) and Firm Performance

Stakeholder theory posits that a company's long-term success is directly correlated with the quality of its relationships with stakeholders (Yu and Xiao, 2022; Jalali et al., 2020). Stakeholders are individuals or groups that can exert influence on the company and are also susceptible to being influenced by the company. Stakeholder theory suggests that ESG (Environmental, Social, and Governance) factors are in line with a company's level of performance (Huang et al., 2023; Ma et al., 2023). For instance, employees who experience contentment with the organisation will exhibit higher levels of motivation in their tasks, contented suppliers will offer more cost-effective prices in comparison to prevailing market rates, and contented customers will develop loyalty towards the company. These factors collectively contribute to enhanced company performance.

The factors of Environment, Social, and Governance exert a beneficial impact on the performance of companies, as evidenced by studies conducted by Maji and Lohia (2022), DasGupta and Roy (2023), and Bheenick et al. (2023). Maji and Lohia (2022) conducted a study utilising data from the CRISIL ESG Compendium, which included information from 222 companies in India spanning the years 2018 to 2022. DasGupta and Roy (2023) conducted a study using a dataset of 27,730 observations collected from 27 different countries between the years 2010 and 2019. Bheenick et al (2023) conducted a study with a sample size of 202 observations, involving a total of 23 companies from the period of 2006 to 2015. The 23 companies are categorised into 3 sectors: 5 companies belong to the mining industry, 6 companies belong to the manufacturing industry, and 12 companies belong to the service industry. According to their statement, there is a positive correlation between the level of implementation of Environment, Social, and Governance (ESG) practices and the performance of the company. Therefore, the hypothesis is:

H_2 : ESG has a positive effect on firm performance.

Moderating Industry Growth, Environment, Social, and Governance (ESG), Company Value and Performance

Industry growth is a crucial factor in industry structure that is often mentioned as a determining factor when assessing future performance in different competitive environments. Additionally, it functions as a gauge of industry progress regarding new participants. This is since companies operating in rapidly expanding sectors possess greater allure for investors. With the expansion of the industry, there will be an increased integration with society, necessitating that every company assumes accountability for its actions. ESG activities serve as a crucial gauge to evaluate a company's actions amidst industry expansion (Chang & Lee, 2022; Chen et al., 2023). Expanding sectors also offer increased prospects for business expansion. Addressing social issues such as ageing, environmental pollution, and unethical employment management in high-growth industries can lead to the emergence of new economic opportunities (Daradkeh, 2023; Siddiqua et al., 2022). Instances such as the surge in sales of environmentally friendly products due to a rise in fine dust levels, the expansion of the market for active seniors due to an ageing population, and the scarcity of labour all create opportunities for recruiting highly skilled workers. Moreover, these actions have the potential to enhance brand awareness, enhance customer loyalty, and expedite sales expansion, all of which contribute to the overall value of the company. Implementing Environmental, Social, and Governance (ESG) practices will enhance the company's ability to pursue additional business opportunities swiftly and effectively, thereby increasing its overall worth in this burgeoning market. Consequently, the company's worth and efficiency will be enhanced. Therefore, the hypothesis is:

H_3 : Industry growth moderates the relationship between ESG and firm value.

H_4 : Industry growth moderates the relationship between ESG and firm performance.

Figure 1 represents the conceptual framework.

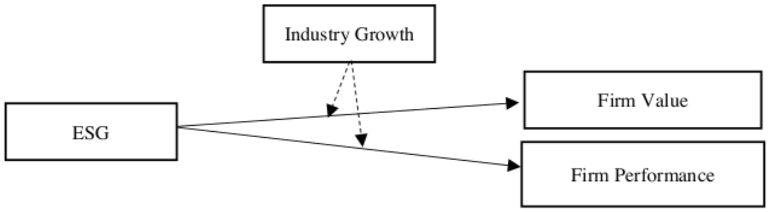

Figure 1. Conceptual Framework

RESEARCH METHODS

Data Collection

This study utilizes a sample of 45 companies that are listed on the Indonesia Stock Exchange (IDX) in the LQ45 category. The observation period for this study spans from 2018 to 2022, resulting in a total of 225 observations (45 companies multiplied by 5 years). Subsequently, the dataset was trimmed down to 160 observations, representing 43 companies. This reduction was necessary due to the absence of ESG reporting by certain companies in specific years, as well as the inclusion of newly listed companies in the LQ45 category on the IDX, which made it unfeasible for researchers to access information pertaining to these companies. The object of study for researchers is LQ45 companies, which are IDX companies that have been selected based on their high liquidity and large market capitalization. To streamline this research, the researchers categorized the 45 companies into 9 sectors.

Table 1. Distribution of Sample Companies by Industry

Sector	Sample
Communication Service	6
Consumer Staples	7
Energy	8
Financials	8
Health Care	1
Materials	10
Utilities	1
Consumer Discretionary	2
Total	**43**

Independent Variable

This study employs Environmental, Social, and Governance (ESG) factors as an independent variable to evaluate their influence on the value and performance of a firm. ESG stands for Environmental, Social, and Governance, which encompasses the implementation of lawful and ethical corporate practices that prioritize environmental sustainability and social responsibility. In the past, companies depended on conventional management techniques that placed emphasis on financial performance. Recently, a development-focused approach has been implemented that evaluates both financial and non-financial performance using ESG criteria. This study assesses the Environmental, Social, and Governance (ESG) factors by utilizing Refinitiv's ESG score. The ESG score obtained has a numerical range spanning from 0 to 100. A high score value signifies a company's superior ESG performance, while a low score value indicates inferior ESG performance.

Dependent Variable

Firm Value

Firm value is a metric that quantifies a company's proficiency in overseeing and executing its business operations (Bui et al., 2023). The firm's value serves as an indicator of the company's success (Arianpoor et al., 2023; Bui et al., 2023). High-performing companies may attract the interest of investors looking to invest their funds. The reason for this is that companies that perform well can generate significant profits for their shareholders. When there is an increase in the demand for a company's stock, the price of that stock increases.

This study employs Tobin's Q as a metric for assessing the worth of a company. The Tobin's Q ratio offers an advantage due to its forward-looking nature, as it considers future profitability rather than solely reflecting present profitability. This ratio encompasses all facets of the company's performance, specifically the market value and the company's total assets. A higher Tobin's Q value indicates that the market value of the company is greater than the current value of its assets. Tobin's Q is a metric used to assess a company's performance by dividing its total market value by its total assets. A higher Tobin's Q ratio indicates that the company has a greater firm value (Chang and Lee, 2022).

$$\text{Tobin's Q}_{it} = \text{Market Value}_{it} / \text{Total Asset}_{it}$$

Tobin's Q < 1, Market value less than total asset, undervalued.
Tobin's Q = 1, Market value equal to total asset, average
Tobin's Q > 1, Market value more than total asset, overvalued.

Firm Performance

Firm performance refers to the assessment of the company's condition and capability during previous and current periods. This study employs Return on Asset as a metric for evaluating the performance of a company (Chen et al., 2022). The Return on Assets (ROA) metric has been extensively utilized in the assessment of firm performance, as evidenced by its application in studies conducted by Wasiuzzaman et.al (2022), Chen et.al (2022), and DasGupta and Roy (2023). The Return on Assets (ROA) is a financial ratio that provides investors with an indication of how effectively a company's management utilizes its assets to generate revenue. Return on assets (ROA) is determined by dividing the net income of a company by its total assets.

$$ROA_{it} = \text{Net Income}_{it} / \text{Total Asset}_{it}$$

Control Variable

The controlling variable of the study is leverage. This variable is employed to manage the financial exposure of the company. Opler suggests that a higher leverage ratio can signal increased financial risk, which can have a negative impact on financial performance (DasGupta and Roy, 2023). Moreover, it is believed that companies with superior Environmental, Social, and Governance (ESG) performance experience reduced "insurance impact" and consequently incur lower costs for debt capital (DasGupta and Roy, 2023). This has the potential to enhance financial performance even more. While the pandemic year could also serve as a control variable, the focus on leverage provides a more direct measure of financial exposure and its impact on performance, allowing for more precise insights into the relationship between leverage and financial outcomes. Leverage is a quantitative measure that assesses a company's capacity to settle its debts in proportion to its assets. To compute this variable, perform the division of the total debt by the company's total assets.

$$LEV_{it} = \text{Total Debt}_{it} / \text{Total Asset}_{it}$$

Industry Growth

Businesses exhibiting rapid growth rates are considered highly desirable due to their ability to offer valuable insights into the future trajectory of the domestic market within the industry (Chang and Lee, 2022). This study utilises the compound annual growth rate (CAGR) to measure the growth of the industry. This study recognizes the significance of understanding the varying impacts of ESG on firm value and performance across different industries. The sample consists of 45 LQ45 companies listed on the Indonesia Stock Exchange (IDX), categorized into nine sectors, offering a broad perspective on ESG influences. Businesses exhibiting rapid growth rates are considered highly desirable due to their ability to offer valuable insights into the future trajectory of the domestic market within their industry (Chang and Lee, 2022). This study employs the compound annual growth rate (CAGR) to measure industry growth, highlighting the potential for sector-specific ESG impacts. The CAGR model utilises the geometric average of the consistent annual growth rate that the industry has experienced in recent years. An approach to calculate Compound Annual Growth Rate (CAGR) is as follows:

$$CAGR(t_0, t) = (S_t / S_{t_0})^{1/(t-t_0)} - 1$$

t0 is the starting point t is the ending point, St and St0 are market sizes calculated based on sales in the starting year and ending year.

Data Analysis Method

This study uses moderate regression analysis using the PLS-SEM-based WarpPLS 7.0 application. The regression equation is as follows:
Model 1
$TQit=\alpha+\beta 1\ ESGit+\ \beta 2\ CAGRit\ {*}ESGit+\ \varepsilon$
Model 2
$ROAit=\alpha+\beta 1\ ESGit+\ \beta 2\ CAGRit\ {*}ESGit+\ \varepsilon$

Description:

TQ	= Firm Value
ROA	= Firm Performance
α	= Constant
β1, β2	= variable regression coefficient
ESG	= Company ESG score
CAGR *ESG	= Moderation between industry growth and ESG
ε	= error
i	= Firm
ε	= Year

RESULTS AND DISCUSSION

Descriptive Statistic

To obtain a general description of the data used, a descriptive statistical analysis was carried out. Table 2 are the results obtained from descriptive statistics.

Table 2. Descriptive Statistic

Variable	Minimal	Maximal	Mean	Std. Dev.
ESG	13.22	88.02	56.62	18.874
TQ	0.002	17.449	1.556	2.079
RoA	-0.035	0.474	0.078	0.081
CAGR	-0.022	0.088	0.058	0.240

Source: WarpPLS 7.0 (treated)

The data presented in Table 2 provides information on the minimum, maximum, mean, and standard deviation of various research variables collected from 43 companies listed on the IDX in the LQ45 category between 2018 and 2022. The variable ESG exhibits the lowest value of 13.22 in PT Barito Pacific Tbk (BRPT) and the highest value of 88.02 in PT Bank Central Asia Tbk (BBCA). The mean value of 56.62 suggests that Indonesian companies listed on the IDX in the LQ45 category for the period of 2018-2022 have implemented over 50% of their ESG activities. ESG scores have a numerical range of 0 to 100, with the average ESG score being 56.62. The standard deviation of the ESG variable is 18.874, which is smaller than the mean value. This suggests that there is relatively little variation in the data.

The dependent variable Tobin's Q has a minimum value of 0.002 for PT. Bank Tabungan Negara (BBTN), suggesting that the company's market value is lower than its total assets. On the other hand, PT Unilever Indonesia Tbk (UNVR) has the highest value of 17.449, indicating that Unilever's market value surpasses its total assets. The mean value of 1.556 suggests that Indonesian companies listed in the IDX LQ45 category from 2018 to 2022 have a market value that exceeds their total assets. The standard deviation of the Tobin's Q variable is 2.079, which exceeds the mean value. This suggests that there is a significant variation in the data. The second dependent variable, ROA, exhibits the lowest value of -0.035 from PT Perusahaan Gas Negara Tbk (PGAS), signifying that PGAS experiences a net loss of 3.5% of total assets rather than a profit. Conversely, it attains the highest value of 0.474 from PT Unilever Indonesia Tbk (UNVR), indicating that the company achieves a profit of 47.4% of total assets. The mean value of 0.078 suggests that Indonesian companies listed in the IDX LQ45 category achieved an average profit of 7.8% of their total assets from 2018 to 2022.

The standard deviation of the ROA variable is 0.081, which exceeds the mean value. This suggests that the data for the ROA variable has a significant range. The moderating variable CAGR exhibits a minimum value of -0.022 in the utilities sector, indicating a decline of 2% per year in the 2018-2022 period. Conversely, it demonstrates a maximum value of 0.088 in the financial sector. The data suggests that the financial sector experienced a compound annual growth rate of 8% from 2018 to 2022. The mean value of 0.058 suggests that the industries in Indonesia are projected to experience an annual growth rate of 5.8% from 2018 to 2022. The standard deviation of the CAGR variable is 0.240, which exceeds the mean value. This suggests that there is substantial variation in the data. The control variable LEV exhibits the minimum value of 0.126 for PT. Vale Indonesia Tbk (INCO), signifying that the company's debt amounts to 12.6% of its total assets. Conversely, it attains the maximum value of 0.944 for PT Bank Tabungan Negara (BBTN), indicating that the company's debt constitutes 94.4% of its total assets.

The mean value is 0.553. Indonesian companies listed on the IDX LQ45 category from 2018 to 2022 have, on average, a debt that amounts to 55.3% of their total assets. The standard deviation of the ESG variable is 0.230, which is lower than the mean value. This suggests that there is minimal variation in the data for the ESG variable.

Analysis

Table 3 shows that H2 and H4 are accepted with p-values <0.05 and a positive influence. H2 is accepted as ESG positively impacts company performance (β = 0.13, p = 0.043). The hypothesis that industry growth improves the relationship between ESG, and firm performance is accepted (β = 0.13, p = 0.041). H1 is rejected due to ESG's negative impact on firm value (β = -0.15, p = 0.025), while H3 is rejected due to a P-value greater than 0.05 (β = -0.125, p = 0.054).

Table 3. Summary of Hypothesis

Testing Direct Effects	Path Coefficients	P-Values	Hipothesis
ESG → Firm Value	-0.150	0.025	Not Supported
ESG → Firm Performance	0.130	0.043	Supported
Moderation effects of Growth industries			
GI → ESG & Firm Value	0.125	0.054	Not Supported
GI → ESG & Firm Performance	0.140	0.041	Supported

Source: WarpPLS 7.0 (treated)

Discussion

The Effect of ESG on Firm Value

The test results outlined in the preceding section demonstrate that ESG factors have an adverse effect on the value of the company. The relationship can be elucidated as follows: as the ESG value or score increases, the corresponding impact on company value decreases. The researcher posits that there are three underlying factors contributing to the rejection of the initial hypothesis. One reason is that this study encompasses the years impacted by the COVID-19 pandemic. Initially, Indonesian companies were relatively unaffected by the COVID-19 pandemic, while companies in other countries experienced its impact. During the cash is king phenomenon, foreign investors started to withdraw their funds from Indonesia, leading to a decline in the share price of Indonesian companies, despite their continued engagement in ESG activities. It is important to highlight that Tobin's Q, which is used to assess the value of a firm, relies on the investor's perception of the company, and requires market value. The second reason is that amidst the COVID-19 pandemic, Indonesian companies experienced the impact of lockdowns, leading to a reduction in ESG (Environmental, Social, and Governance) spending. Surprisingly, stock prices increased during this time. This was due to the rise in share prices of nickel mining companies, driven by the growing demand for electric cars, which rely on nickel as a key component. Investors became optimistic about this trend. Additionally, the construction sector experienced a boost in stock prices due to the IKN project, further attracting investor attention. The third reason is that the study's findings align with agency theory, which posits that ESG activities can lead to conflicts of interest between managers and shareholders. Investing in ESG (Environmental, Social, and Governance) initiatives is not advantageous for shareholders as it leads to the inefficient allocation of company resources, ultimately leading to reduced profitability and diminished company valuation (Yu and Xiao, 2022).

The Effect of ESG on Firm Performance

The second hypothesis posits that Environmental, Social, and Governance (ESG) factors have a beneficial influence on the performance of companies. The H2 research findings indicate a positive correlation between the increase in ESG value and the improvement in the company's performance. The findings will unquestionably corroborate prior studies (Maji and Lohia, 2022; DasGupta and Roy, 2023; Bheenick et al., 2023) indicating that employing ESG as a corporate strategy can enhance performance. Moreover, these findings corroborate the stakeholder theory, which posits that a company's ability to sustain relationships with stakeholders directly correlates with its level of success. This suggests that employees who are content with the company are likely to exhibit higher levels of motivation in their work. Content suppliers will provide prices that are lower than the prevailing market rates. Customers who are content with the company's products or services will develop a sense of loyalty.

Moderation Effect of Industry Growth on the Relationship between ESG and Firm Value

The third hypothesis suggests that the relationship between ESG (Environmental, Social, and Governance) factors and business value is influenced by the growth of the industry. The H3 research findings indicate that the growth of the industry does not diminish the correlation between environmental, social, and governance (ESG) factors and the value of a firm. Therefore, H3 is deemed unacceptable or unsupported. Chang and Lee (2022) conducted a study which found that as an industry expands, businesses demonstrate increased dedication and responsibility in their decision-making processes. Additionally, there is a growing acknowledgment that owners and management bear the responsibility for any errors made. This conclusion contradicts their theory. As the sector expands, corporate social responsibility and moral management objectives, such as promoting national policies and public interests, will also increase. In other words, ESG initiatives are increasing in parallel with the industry's growth trajectory.

Moderation Effect of Industry Growth on the Relationship between ESG and Firm Performance

The fourth hypothesis, which suggests that the growth of the industry influences the connection between ESG (Environmental, Social, and Governance) factors and the performance of the firm, has been confirmed. Irrespective of the significance of Environmental, Social, and Governance (ESG) factors, the growth of the industry has an impact on the overall performance of the firm. As industries with higher growth rates experience an increase in ESG levels, firm performance will improve (Chang & Lee, 2022). This hypothesis supports the initial argument that businesses can capitalise on this situation to establish new markets that prioritise enhancing environmental, social, and governance (ESG) factors. This can be achieved by improving company operations or producing products in an eco-friendlier manner, ultimately leading to enhanced company performance.

CONCLUSIONS

This study provides a strategic analysis of how Environmental, Social, and Governance (ESG) actions impact the value and performance of firms, considering the unique characteristics of the industry. The empirical findings serve as the basis for these conclusions. Primarily, ESG exerts a substantial adverse influence on the value of a business. The findings indicate that the initial hypothesis is not substantiated, suggesting that businesses are unable to utilise ESG (Environmental, Social, and Governance) practices to enhance the value of the company. Furthermore, the study's results validate that implementing ESG practices can serve as a strategic approach to enhance business performance and yield a favourable influence on company performance. Furthermore, the correlation between ESG and company value remains unchanged despite the expansion of the industry, indicating that the growth of the industry does not impact this relationship. Furthermore, corporations can enhance environmental, social, and governance (ESG) practices in industries that are experiencing higher levels of performance. This can lead to a more rapid improvement in overall firm performance, particularly as industry growth helps to moderate the connection between ESG practices and firm performance. Despite the implementation of ESG practice regulations in 2017 (No. 51/POJK. 03/2017), there are still several organisations that have not adopted ESG practices. This has posed challenges in gathering data for this study.

Suggestions

This study employs industry growth as a means of defining industry characteristics and presents the findings of hypothesis 3, which were not supported. In future research, industry concentration can be utilised by researchers to define industry characteristics. For the subsequent research analysis, a multilevel analysis method can be employed to categorise industries and companies into distinct levels. Through the utilisation of multilevel analysis, researchers can validate the impact of variables originating from various levels. Due to the presence of multilevel characteristics, it is expected that this data will result in industries and companies being at different levels. Assuming that companies and industries are on equal footing, analysing them in this way can result in ecological inaccuracies.

While this study provides a comprehensive overview, it does not include an analysis for each individual sector. Future research should aim to collect more granular data across different industries to uncover nuanced ESG effects. Conducting a detailed sectoral analysis would offer more targeted insights, enabling stakeholders to make more informed decisions tailored to each industry's unique characteristics. This approach would enhance the understanding of how ESG factors influence firm value and performance in specific sectors, providing valuable information for policymakers and investors. Furthermore, future research could consider using the pandemic year as a control variable. This would provide additional insights into how extraordinary economic conditions influence the relationship between ESG factors and firm performance, offering a more comprehensive understanding of financial exposure and outcomes.

REFERENCES

Agarwal, B., Gautam, R. S., Jain, P., Rastogi, S., Bhimavarapu, V. M., & Singh, S. (2023). Impact of environmental, social, and governance activities on the financial performance of Indian health care sector firms: using competition as a moderator. *Journal of Risk and Financial Management, 16*(2), 109.

Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. In Borsa Istanbul Review (Vol. 22, pp. S119–S127). *Borsa Istanbul Anonim Sirketi*. https://doi.org/10.1016/j.bir.2022.11.006

Behl, A., Kumari, P. R., Makhija, H., & Sharma, D. (2022). Exploring the relationship of ESG score and firm value using cross-lagged panel analyses: Case of the Indian energy sector. *Annals of Operations Research, 313*(1), 231-256.

Bissoondoyal-Bheenick, E., Brooks, R., & Do, H. X. (2023). ESG and firm performance: The role of size and media channels. *Economic Modelling, 121*, 106203.

Chang, Y. J., & Lee, B. H. (2022). The impact of ESG activities on firm value: Multi-level analysis of industrial characteristics. *Sustainability, 14*(21), 14444.

Chen, H. M., Kuo, T. C., & Chen, J. L. (2022). Impacts on the ESG and financial performance of companies in the manufacturing industry based on the climate change related risks. *Journal of Cleaner Production, 380*, 134951.

DasGupta, R., & Roy, A. (2023). Moderation impact of national culture on international firm's environmental, social, governance and financial performance. *International Journal of Intercultural Relations, 92*, 101749.

Dincă, M. S., Vezeteu, C. D., & Dincă, D. (2022). The relationship between ESG and firm value. Case study of the automotive industry. *Frontiers in Environmental Science, 10*, 2655.

Fuadah, L. L., Mukhtaruddin, M., Andriana, I., & Arisman, A. (2022). The ownership structure, and the Environmental, Social, and Governance (ESG) disclosure, firm value and firm performance: The audit committee as moderating variable. *Economies, 10*(12), 314.

Li, S., Liu, Y., & Xu, Y. (2023). Does ESG performance improve the quantity and quality of innovation? The mediating role of internal control effectiveness and analyst coverage. *Sustainability (Switzerland), 15*(1). https://doi.org/10.3390/su15010104

Habib, A. M., & Mourad, N. (2023). The influence of Environmental, Social, and Governance (ESG) practices on US firms' performance: Evidence from the coronavirus crisis. *Journal of the Knowledge Economy*, 1-22

Kementrian Perindustrian Republik Indonesia. "Tahun 2021, Menperin: Sektor Industri Masih Jadi Penopang Utama Ekonomi." Kemenperin.go.id. https://www.kemenperin.go.id/artikel/23048/Tahun-2021.

Lorenza, D., Kadir, M. A., & Sjahruddin, H. (2020). Pengaruh struktur modal dan ukuran perusahaan terhadap profitabilitas pada perusahaan otomotif yang terdaftar di Bursa Efek Indonesia. *Jurnal Ekonomi Manajemen, 6*(1), 13-20.

Maama, H., & Appiah, K. O. (2019). Green accounting practices: lesson from an emerging economy. *Qualitative Research in Financial Markets, 11*(4), 456-478.

Maji, S. G., & Lohia, P. (2023). Environmental, Social and Governance (ESG) performance and firm performance in India. *Society and Business Review, 18*(1), 175-194

Ramírez-Orellana, A., Martínez-Victoria, M., García-Amate, A., & Rojo-Ramírez, A. A. (2023). Is the corporate financial strategy in the oil and gas sector affected by ESG dimensions? *Resources Policy, 81*, 103303.

Rastogi, S., & Singh, K. (2022). The impact of ESG on the bank valuation: evidence of moderation by ICT. *Journal of Global Responsibility*, (ahead-of-print)

Rohendi, H., Ghozali, I., & Ratmono, D. (2024). Environmental, Social, and Governance (ESG) disclosure and firm value: the role of competitive advantage as a mediator. *Cogent Business & Management, 11*(1). https://doi.org/10.1080/23311975.2023.2297446

Samy El-Deeb, M., Ismail, T. H., & El Banna, A. A. (2023). Does audit quality moderate the impact of environmental, social and governance disclosure on firm value? Further evidence from Egypt. *Journal of Humanities and Applied Social Sciences, 5*(4), 293–322. https://doi.org/10.1108/jhass-11-2022-0155

Shakil, Mohammad Hassan. (2021). Environmental, Social and Governance performance and financial risk: Moderating role of ESG controversies and board gender diversity. *Resources Policy, 72*.

Wasiuzzaman, S., Ibrahim, S. A., & Kawi, F. (2022). Environmental, Social and Governance (ESG) disclosure and firm performance: does national culture matter? *Meditari Accountancy Research,* (ahead-of-print).

Wu, S., Li, X., Du, X., & Li, Z. (2022). The impact of ESG performance on firm value: The moderating role of ownership structure. *Sustainability, 14*(21), 14507.

World Economic Forum. (2023). *Global risk report 2023*. Retrieved from https://www.weforum.org/reports/global-risks-report-2023

Yu, X., & Xiao, K. (2022). Does ESG performance affect firm value? Evidence from a New ESG-scoring approach for Chinese enterprises. *Sustainability, 14*(24), 16940

Zhang, C., & Chen, D. (2023). Do environmental, social, and governance scores improve green innovation? Empirical evidence from Chinese-listed companies. *PLoS One, 18*(5).

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