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ESG AND FIRM VALUE: THE MODERATING ROLE OF STOCK RETURNS AND EPS

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Abstract:

This study examines the influence of Environmental, Social, and Governance (ESG) on firm value, and explores the role of stock returns and Earnings Per Share (EPS) as moderating variables. Using secondary data from 84 public companies listed on the Indonesia Stock Exchange from 2020 to 2023, this study applies a panel regression approach with a fixed effects model. The analysis results indicate that ESG has a negative and significant influence on firm value. Furthermore, the interaction between ESG and stock returns also shows a significant negative effect, indicating that high stock returns can amplify the negative impact of ESG on firm value. Conversely, the interaction between ESG and EPS does not show a significant effect, indicating that EPS does not act as a moderator in this relationship. This finding has an important implication that ESG implementation does not automatically increase firm value. This occurs because ESG initiatives need to be supported by appropriate management strategies and effective communication with investors.

Keywords: ESG, Firm Value, Stock Return, Tobin's Q, EPS

INTRODUCTION

In recent years, sustainability issues have become a global focus, particularly for companies seeking to create long-term value. Environmental, Social, and Governance (ESG) reporting is increasingly important in influencing corporate performance (Rahman et al., 2023). In an increasingly competitive economic environment, companies face significant pressure to meet stakeholder demands. Companies are not only required to present transparent financial reports but also to integrate sustainability reports that reflect the social and environmental impacts of their business activities. This includes a comprehensive assessment of the company's operations, demonstrating a holistic commitment to social and environmental responsibility.

Therefore, comprehensive Environmental, Social, and Governance (ESG) reporting is crucial for building a company's reputation and competitiveness in a market that increasingly prioritizes sustainability. In line with this, ESG disclosure has become a new framework for addressing demands from various stakeholders, particularly institutional investors, to assess the extent of a company's commitment to operational sustainability (Olsen et al., 2021; Wedajo et al., 2024). Global investors are also increasingly integrating ESG factors into their investment decisions, as sound ESG practices can enhance a company's long-term value (Brogi & Lagasio, 2019). Institutional investors are increasingly selective in their investments, considering ESG scores as a risk management indicator. Therefore, ESG reporting is not only a corporate social obligation but also a strategic factor for long-term growth due to transparency, enhanced reputation, and institutional investors' preference for assessing risk and business sustainability indicators over a company's sustainability orientation (Wedajo et al., 2024). Therefore, companies that demonstrate a commitment to ESG are considered more resilient and able to create a competitive advantage. However, the extent to which ESG actually impacts company value, as measured by Tobin's Q, remains a matter of academic debate.



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Several studies have shown that ESG has a positive impact on firm value, particularly in countries with strong regulations and long-term ownership structures, particularly in developed countries compared to developing countries due to the lack of ESG regulations and the high costs of ESG implementation (Rahat & Nguyen, 2024; Jung & Yoo, 2023). Furthermore, Gillan et al. (2021) revealed that companies with strong ESG performance have good firm value, higher market valuation, lower cost of capital and increased attractiveness to institutional investors, which is reflected in Tobin's Q. However, different results emerge in developing countries, where the costs of ESG implementation are often not offset by increased market value, particularly in highly competitive industries or in countries with weak regulatory enforcement (Narula et al., 2025; Ademi & Klungseth, 2022). In addition, Eliwa & (2025) showed that ESG has no effect on company value with short-term investor ownership because they lose the incentive to implement ESG strategies, as sustainability benefits are seen in the future, while short-term investors focus on quarterly performance.

Corporate value reflects a company's performance and market prospects for growth. In the context of corporate value, earnings per share (EPS) and stock returns are key indicators of investment attractiveness and assess a company's prospects. EPS reflects a company's ability to generate profits, while stock returns indicate the return investors receive on their investment. Therefore, EPS and stock returns serve as indicators of financial success, ultimately increasing company value. ESG integration generally strengthens a company's reputation and value, but is highly dependent on the financial context and market conditions (Khaled et al., 2025). This suggests that integration and reputation signals alone are not strong enough to increase company value without the support of profitability and stock returns. Although there is a correlation between ESG levels and stock returns, stock return movements are largely influenced by fundamental factors, not ESG itself (Lin et al., 2025).

Companies with high EPS may be better able to absorb the costs of ESG implementation and translate them into competitive advantages, thus strengthening the impact of ESG on market value. Conversely, when EPS is low or stock returns are negative, the market tends to focus on short-term financial risks and overlook the added value of ESG commitments. Therefore, in this case, company value is not only influenced by ESG but can also be strengthened or weakened by EPS and stock returns.

The main contributions of this study are as follows. Although previous literature has discussed the influence of ESG on company value, research examining the moderating variables of Earnings per Share (EPS) and stock returns in moderating the role of ESG on company value is still very limited, particularly in the context of emerging markets. Indonesia, as a developing country, is characterized by investors still dominated by speculative behavior regarding fluctuations in earnings and stock prices (Muhammad & Sunitiyoso, 2024), which are generally short-term oriented. This creates potential conflicts in market expectations regarding ESG achievement and company value. However, empirical studies on ESG and company value, considering the role of EPS and stock returns as moderating variables, are still very limited. As a developing country with active sustainability regulatory transformation, Indonesia is a unique and important context for research.

Thus, this study aims to bridge the existing gap in the literature by exploring the moderating role of earnings per share (EPS) and stock returns on ESG performance and firm value. These findings are expected to provide conceptual and practical contributions in clarifying the effectiveness of ESG as a driver of firm value, particularly when examined in conjunction with financial variables reflecting investor preferences.

This paper is structured as follows. Section 2 presents a literature review related to ESG, firm value, EPS, and stock returns. Section 3 explains the methodology and data used in the study. Section 4 discusses the research results and empirical tests, and Section 5 provides conclusions. Section 6 contains limitations and recommendations for further research.

Basic and Conceptual Theory. In the last decade, the paradigm for assessing corporate performance has undergone a significant shift. It is no longer solely focused on achieving financial returns, but also requires companies to demonstrate broader responsibility for Environmental, Social, and Governance (ESG) aspects. The understanding of ESG is often associated with two main theoretical approaches: stakeholder theory and agency theory. Stakeholder theory holds that companies are responsible not only to shareholders but also to all parties affected by their operational activities, including employees, consumers, communities, and the environment (Freeman, 1984). In this context, ESG implementation is considered capable of creating long-term value for companies by strengthening social relationships, reducing operational risks, and building a positive reputation (Rahat & Nguyen, 2024; Yu & Xiao, 2022).

Conversely, agency theory views ESG practices more skeptically. ESG activities can create conflicts of interest between management and shareholders. Costs incurred for ESG initiatives are considered inconsistent with shareholder objectives because they can reduce company profits. In some cases, ESG initiatives are considered a cost burden that can actually disrupt company efficiency if implemented without careful consideration or not aligned with shareholder interests (Wong et al., 2020). Therefore, within the agency theory framework, ESG activities have the potential to reduce company efficiency and profitability if not supported by strong governance. These two approaches illustrate the complexity of understanding ESG. This means that the influence of ESG on company performance and value is not always absolute but is highly dependent on the context and company strategy, as well as internal and external factors.

ESG Performance and Firm Value. Over the past two decades, Environmental, Social, and Governance (ESG) practices have become a crucial element of corporate business strategies globally. ESG performance has become a primary focus of numerous studies on the determinants of firm value, as ESG is considered a crucial instrument in creating competitive advantage, acting as a crucial signal for building market trust and enhancing long-term value (Rahat & Nguyen, 2024; Aydoğmuş et al., 2022).

Several empirical studies have shown a significant positive relationship between ESG scores and firm value. For example, Rahman et al. (2023), using a sample of 255 companies in Pakistan, found a positive effect of ESG on Tobin's Q, particularly when supported by a sustainability strategy and management commitment. Furthermore, Rahat and Nguyen (2024), using a sample of companies in emerging markets, demonstrated that ESG scores have a positive and significant effect on firm valuation, both in the short and long term. Furthermore, Wong et al. (2020) provide evidence that ESG certification increases firm value, lowers the cost of capital, and sends a positive signal regarding governance quality. However, other studies, such as those by Yu and Xiao (2022), show that if ESG practices are implemented inefficiently, they can actually burden a company's finances and reduce its value. In other words, the influence of ESG on firm value is highly dependent on the company's internal conditions and capacity. In line with this, Nurim et al. (2022) revealed that only companies with stable financial performance are able to optimize the impact of ESG on firm value. This suggests that financial stability is a prerequisite for successful ESG implementation. H1: ESG has a significant influence on firm value.

Stock Returns as a Moderating Variable. Stock returns are a market indicator that reflects investor response to a company's performance and prospects. Within the framework of signaling

theory, stock returns can reflect investor confidence in information generated by ESG activities (Aydoğmuş et al., 2022; Rahat & Nguyen, 2024). Several studies, such as those by Aydoğmuş et al. (2022); Xiao-Na Yin et al. (2023), show that the relationship between ESG and firm value is stronger when stock returns are positive, as ESG is considered a signal of quality and risk management. Other research also shows that companies with high stock returns are more likely to receive positive market assessments for their ESG practices (Rastogi et al., 2024). This is because investors tend to associate ESG performance with a company's long-term reputation and stability, which is reflected in stock price appreciation. However, when stock returns are low or volatile, ESG initiatives can be perceived as a distraction from negative signals of poor risk management. Therefore, the success of ESG in increasing firm value is strongly influenced by investor perceptions, as reflected in stock returns. Therefore, stock returns have the potential to act as a moderator, determining the direction and strength of the relationship between ESG and firm value. H2: Stock returns moderate the relationship between ESG and firm value.

Earnings Per Share as a Moderating Variable. Earnings per share (EPS) is one of the indicators most frequently used by investors to assess a company's financial health. EPS provides a concrete picture of how much profit is earned for each share held by an investor. Therefore, EPS is often associated with managerial performance and a company's growth potential. It is also used as a measure of operational and managerial efficiency, as well as a basis for investor investment decisions (Quintiliani, 2022).

Regarding ESG, EPS can play a crucial role. When a company demonstrates high EPS, the market is more likely to believe that its ESG initiatives are not merely formalities but part of a sustainable long-term strategy. Conversely, if EPS is low, the market tends to be skeptical of ESG because it doubts the company's ability to balance social responsibility with profitability demands. A study by Rastogi et al. (2024) supports this view by showing that EPS can either strengthen or weaken the influence of ESG on company value. This is because companies with high EPS tend to receive stronger market appreciation for ESG practices, due to their sufficient financial capacity to implement sustainability initiatives effectively.

On the other hand, companies with low or fluctuating EPS may face market skepticism regarding ESG effectiveness, even if the company's ESG score is high. Therefore, EPS not only reflects financial performance but also serves as an additional signal of the credibility of ESG implementation. H3: EPS moderates the relationship between ESG and firm value

Framework and Related Research. This study builds on the conceptual foundation of previous studies that suggest that ESG performance can increase firm value, but its impact depends on the company's financial and market context. Stock returns and EPS are positioned as factors that can moderate ESG performance on firm value, which translates more tangibly into market valuation. Therefore, this study seeks to address this gap in the literature by formulating an empirical model that tests the effect of ESG on firm value, moderated by EPS and stock returns, specifically in the context of public companies in developing countries.

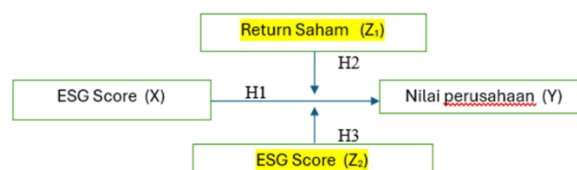


Figure 1. Conceptual Framework

METHODS

Research Design, Population, and Sample. This study uses panel data regression analysis with a population of all companies listed on the Indonesia Stock Exchange (IDX) during the 2020-2023 period. The ESG data used is secondary data obtained from Thomson Reuters Refinitiv, while stock returns and EPS data were obtained from company financial reports on IDX.co.id and the companies' official websites. This study selected the 2020-2023 period because these years encompass two important phenomena affecting the Indonesian economy and capital markets. At the beginning of the pandemic, economic uncertainty caused significant declines in various stock markets. In this context, ESG became a primary concern as investors became increasingly concerned with investment sustainability. Furthermore, this period encompassed the crisis phase, initial recovery, and stable stock market conditions. Based on the purposive sampling characteristics, only 32 companies met the four-year criteria (2020–2023), resulting in 128 observations (panel data).

Operational Definition and Variable Measurement. This study involved four main variables: ESG (Environmental, Social, and Governance) as the independent variable, firm value as the dependent variable, and stock returns and earnings per share (EPS) as moderating variables. The ESG variable represents a company's sustainability performance across three main dimensions: environmental (E), social (S), and corporate governance (G). The ESG score reflects the extent to which a company integrates social and environmental responsibility principles into its operational strategy and governance practices. Firm value is measured using the Tobin's Q ratio. This ratio is the most representative indicator of market perception of a company's intrinsic value. The higher the ratio, the more positive the market's assessment. Meanwhile, stock returns and EPS reflect financial performance and market response to a company's performance. The following are the definitions and measurement methods for each variable:

Table 1. Operational Definitions

Variable Type	Name	Symbol	Measurement
Independent	ESG Scores	X1	ESG score from Refinitiv or Bloomberg (scale 0–100)
Dependent	Company Value (Tobin's Q)	Y	Tobin's Q = Market value of shares + Book value Value of debt / Book value of total assets (Mansour et al., 2025).
Moderation	Stock Returns	M1	$R = (Pt - Pt-1) / Pt-1$
Moderation	Earnings Per Share	M2	EPS = Net income of owners of the parent entity / weighted average number of shares

Analysis Model and Technique. In the theoretical framework underlying this research, it is assumed that ESG is a strategic determinant of firm value, in line with the stakeholder and legitimacy approaches. However, the influence of ESG on firm value is likely contingent and influenced by a company's specific financial condition. Therefore, EPS and stock returns are included as moderating variables to evaluate whether financial performance and market response strengthen or weaken the relationship between ESG and firm value.

The regression model used is formulated in two parts. The first model is used to test ESG, stock returns, and EPS as independent variables. The second model is used to test the moderating interaction between the independent and dependent variables. The two-model regression approach is used to test the direct effect of ESG, stock returns, and EPS on firm value (Model 1), and then to evaluate whether returns and EPS moderate the relationship between ESG and firm value through interaction variables (Model 2). The regression model is as follows:



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- $FV_{it} = \alpha + \beta_1 * ESG_{it} + \beta_2 * Rit + \beta_3 * EPS_{it} + E_{it}$
- $FV_{it} = \alpha + \beta_1 * ESG_{it} + \beta_2 (ESG_{it} * Rit) + \beta_3 (ESG_{it} * EPS_{it}) + E_{it}$

Where:

- FV_{it} : The firm value of company i in year t, proxied by Tobin's Q
- ESG_{it} : The ESG score of company i in year t
- Rit : Annual stock return
- EPS_{it} : Earnings per Share
- $ESG_{it} * Rit$: Interaction between ESG and stock return
- $ESG_{it} * EPS_{it}$: Interaction between ESG and EPS
- α : Constant
- β_1 : Regression coefficient for ESG
- E_{it} : Residual error

RESULT AND DISCUSSION

Descriptive Statistics. This study examines the effect of Environmental, Social, and Governance (ESG) performance on firm value, as well as the moderating role of stock returns and earnings per share (EPS), using a fixed effects (FE) regression model on 128 observations from 32 companies listed on the IDX for the 2020–2023 period.

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Var_Y	128	1.791491	1.861116	.3420297	14.41466
Var_X1	128	51.07992	18.83008	16.83	88.86
Var_M1	128	1.051719	.2803596	.2580645	1.788321
Var_M2	128	735.4093	1860.449	.2957493	16799.14

Descriptive statistics in Table 1 show that the average ESG score (Var_X1) was 51.08, with a range of 16.83 to 88.86. This indicates significant differences in the implementation of sustainability principles between companies. Stock returns (Var_M1) had a positive average of 1.05, indicating that most companies in the sample experienced relatively good market performance during the study period, although there was significant variation between companies, as indicated by the standard deviation of 0.28.

Meanwhile, the average EPS score (Var_M2) reached 735.41 with a very high standard deviation, reflecting significant differences in profitability between companies. The firm value, measured by Tobin's Q (Var_Y), had an average of 1.79 and a maximum of 14.41, indicating that the market views some companies as having high growth prospects. In general, the variation in these values indicates that each company in the sample has different financial and ESG characteristics, thus supporting the use of a panel regression approach to test the relationship between the variables empirically.

Regression Model; Model 1: ESG, Stock Returns, and EPS as Independent Variables. The estimation results of the first model (Table 2) show that ESG has a significant negative effect on firm value with a coefficient ($\beta = -0.036$) and a probability ($p = 0.022$). This supports the first hypothesis, based on the previous assumption that there is a relationship between ESG and firm value. This indicates that an increase in ESG scores tends to decrease firm value.

Furthermore, stock returns also show a significant negative effect ($\beta = -0.5356$, $p = 0.031$), indicating that during the observation period, high returns do not always align with increased firm



value, particularly in the context of companies with a strong ESG commitment. Conversely, the EPS variable does not show a significant effect on firm value with a p-value ($p = 0.788$). The F-statistic value of 4.95 ($p = 0.0031$) indicates that the model has an overall good fit. Meanwhile, the coefficient of determination (overall R^2) of 5.74% indicates that the independent variables only explain a small portion of the variation in firm value. Meanwhile, the negative correlation between the individual effects and the predictor variables ($\text{corr}(u_i, X_b) = -0.557$) indicates a fairly strong relationship, making the fixed effects approach appropriate for this analysis.

Table 3. Regression Model 1

Var_Y	Coefficient	Std. err.	t	P> t	[95% conf. interval]
Var_X1	-.0362684	.0112789	-3.22	0.002	-.0586661 -0.0138707
Var_M1	-.5355809	.2442913	-2.19	0.031	-1.020695 -0.0504668
Var_M2	.0000146	.0000542	0.27	0.788	-.000093 .0001223
_cons	4.196592	.6398943	6.56	0.000	2.925889 5.467296

Model 2: ESG and the Interaction Variable between ESG and Stock Returns and EPS. In the second model (Table 3), the moderating variable stock returns (Var_X1M1) has a significant negative effect with a coefficient and p-value of ($\beta = -0.010286$; $p = 0.014$). This indicates that stock returns can moderate the relationship between ESG and firm value, weakening the relationship between ESG and firm value. Therefore, these results support hypothesis H2. Therefore, the higher a company's stock returns, the greater the negative effect of ESG on firm value. When returns increase, firm value decreases due to a high ESG score.

Conversely, the moderating variable EPS has no significant effect on value ($p = 0.887$), indicating that EPS does not act as a moderator in the relationship between ESG and firm value. Therefore, hypothesis H3 is rejected. This insignificance indicates that high reported EPS values are not strong enough to change investor or market perceptions of ESG as a signal of corporate value creation. However, the ESG variable still showed a significant negative effect in this model ($\beta = -0.0251063$; $p = 0.039$).

The second model had an F-statistic of 5.49 ($p = 0.0016$) and an overall R^2 of 6.18%, slightly higher than the baseline model. This strengthens the argument that the interaction between ESG and stock returns provides additional explanation for variations in firm value.

Table 4. Regression Model 2

Var_Y	Coefficient	Std. err.	T	P> t	[95% conf. interval]
Var_X1	-.0251063	.0119894	-2.09	0.039	-.0489149 -0.0012977
Var_X1M1	-.010286	.004101	-2.51	0.014	-.0184299 -0.0021422
Var_X1M2	9.54e-08	6.69e-07	0.14	0.887	-1.23e-06 1.42e-06
_cons	3.624676	.5738845	6.32	0.000	2.485055 4.764296

This study examines the relationship and mechanisms between ESG performance and firm value, with the moderating role of stock returns and EPS in companies listed on the Indonesia Stock Exchange. The first finding, the regression analysis results in Tables 1 and 2, indicate that ESG scores are negatively correlated with firm value (Tobin's Q). The higher the ESG score, the lower the firm value. This finding indicates that companies listed on the Indonesian capital market, within the observation period, do not yet view ESG as a value-creating instrument. ESG is not yet considered a factor that can add value or improve company performance.

This is consistent with the agency theory approach proposed by Wong et al. (2020), which states that managers often use ESG expenditures as a means of building personal reputation rather than as an instrument for creating economic value for the company. Furthermore, Aydoğmuş et al. (2022) documented the negative impact of ESG on corporate profitability in emerging markets. Furthermore, Olaf Stotz (2022) and Bradford Cornell (2020) also support these results, stating that portfolios focused on ESG performance tend to deliver lower actual returns than investor expectations, especially when the investment orientation is short-term. This finding reinforces the assumption that ESG costs, which do not directly impact profitability, can weaken market valuations of companies.

The second finding, in Table 2, shows that stock returns negatively moderate the relationship between ESG and firm value. The higher the company's return, the weaker the influence of ESG on firm value. This aligns with research by Dinh (2023) and Cornell (2021), which shows that investors often do not associate ESG performance with higher stock return expectations, especially in short-term investments. Furthermore, Dinh (2023) and López Prol and Kim (2022) reveal that short-term returns are often out of sync with long-term ESG objectives. The decline in company value in this context can be explained by the phenomenon of investors with low risk preferences but high return expectations (Mario La Torre et al., 2020). Therefore, in unstable market conditions, resource allocation to ESG, but not accompanied by positive stock market performance, will cause the market to view ESG efforts as a risk diversion, rather than a signal of long-term growth. This suggests that in the context of emerging markets like Indonesia, investor preferences are still dominated by a short-term investment orientation. The negative results from the interaction of ESG and stock returns can be understood as a reflection of the temporal discrepancy between ESG objectives and investor expectations.

Meanwhile, in Table 2, EPS shows no significant effect, either directly or as a moderator. In this context, earnings-based financial performance (EPS) is not yet a strong benchmark for assessing the synergy between ESG and company value. This indicates that accounting information, in this case EPS, is not credible enough in the eyes of investors to be a relevant indicator in decision-making related to ESG as a means of creating corporate value (Postiglione et al., 2023). Furthermore, Dorina Popa et al. (2022) also showed that EPS becomes informationally significant for ESG strategy if top management has a strong long-term commitment.

Thus, in the context of Indonesian companies, investors have not effectively used EPS as an instrument for assessing a company's ESG performance, or that EPS is still influenced by high accounting variability and does not consistently reflect intrinsic value.

CONCLUSION

This study concludes that, in the context of Indonesian companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2023 period, ESG scores exhibit a significant negative effect on firm value. This effect is further reinforced by the results of stock returns, which act as a negative moderator between ESG and firm value. Stock returns not only have a direct negative effect but also moderate the relationship between ESG and firm value, strengthening the downward influence of ESG on firm value. In other words, companies that demonstrate high returns but whose ESG commitments are not aligned with market performance will tend to be undervalued by the market, thus strengthening the argument that ESG is perceived as a cost rather than a long-term strategic investment in creating firm value. Conversely, EPS is not shown to have a moderating effect on this relationship.



- Muhammad, A. A., & Sunitiyoso, Y. (2024). Anticipating the Future of Capital Market and Investment Climate in Indonesia: A Scenario Personarrative Approach. *Journal of Futures Studies*, 28(3).
- Narula, R., Rao, P., Kumar, S., & Matta, R. (2024). ESG scores and firm performance-evidence from emerging markets. *International Review of Economics & Finance*, 89, 1170-1184.
- Nurim, Y., Harjanto, N., Prabawati, P. I., & Wijaya, N. R. (2022). Stable financial performance as the antecedent of ESG activity and firm value relationship: Evidence from Indonesia, in Quantitative analysis of social and financial market development (pp. 85-102). Emerald Publishing Limited.
- Olsen, B. C., Awuah-Offei, K., & Bumblauskas, D. (2021). Setting materiality thresholds for ESG disclosures: A case study of US mine safety disclosures. *Resources Policy*, 70, 101914.
- Postiglione, M., Carini, C., & Falini, A. (2024). ESG and firm value: A hybrid literature review on cost of capital implications from the Scopus database. *Corporate Social Responsibility and Environmental Management*, 31(6), 6457-6480.
- Quintiliani, A. (2022). ESG and firm value. *Accounting and Finance Research*, 11(4), 37.
- Rahat, B., & Nguyen, P. (2024). The impact of ESG profile on a Firm's valuation in emerging markets. *International review of financial analysis*, 95, 103361.
- Rahman, H. U., Zahid, M., & Al-Faryan, M. A. S. (2023). ESG and firm performance: The rarely explored moderation of sustainability strategy and top management commitment. *Journal of Cleaner Production*, 404, 136859.
- Rastogi, S., Singh, K., & Kanoujiya, J. (2024). Firm's value and ESG: the moderating role of ownership concentration and corporate disclosures. *Asian Review of Accounting*, 32(1), 70-90.
- Serafeim, G., & Yoon, A. (2023). Stock price reactions to ESG news: The role of ESG ratings and disagreement. *Review of accounting studies*, 28(3), 1500-1530.
- Shirasu, Y., & Kawakita, H. (2021). Long-term financial performance of corporate social responsibility. *Global Finance Journal*, 50, 100532.
- Stotz, O. (2022). Expected and realized returns on stocks with high-and low-ESG exposure. In *Risks Related to Environmental, Social and Governmental Issues (ESG)* (pp. 59-76). Cham: Springer Nature Switzerland.
- Wedajo, A. D., Salah, A. A., Bhat, M. A., Iqbal, R., & Khan, S. T. (2024). Analyzing the dynamic relationship between ESG scores and firm value in Chinese listed companies: insights from generalized cross-lagged panel model. *Discover Sustainability*, 5(1), 336.
- Wong, W. C., Batten, J. A., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2021). Does ESG certification add firm value?. *Finance Research Letters*, 39, 101593.
- Yin, X. N., Li, J. P., & Su, C. W. (2023). How does ESG performance affect stock returns? Empirical evidence from listed companies in China. *Heliyon*, 9(5).
- 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.