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Environmental, Social, and Governance Disclosure Effects on Firm Value, Profitability, and Capital Structure in Indonesia

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Abstract

This investigation explores the intricate interplay between Environmental, Social, and Governance (ESG) disclosures and their impact on corporate valuation and profitability, with capital structure serving as a pivotal mediating factor. Despite growing stakeholder interest in ESG practices, research findings remain inconsistent, particularly in emerging markets. Drawing upon rigorous quantitative techniques and the application of PLS-SEM analysis, our study meticulously examined a sample of 42 publicly traded companies on the Indonesia Stock Exchange spanning the years 2017 to 2023. The findings illuminate a nuanced landscape: environmental disclosure exerts a positive influence on profitability, yet its impact on firm value remains statistically insignificant. Conversely, social disclosure emerges as a significant driver of firm value, although it does not markedly enhance profitability. Intriguingly, disclosures related to governance reveal a paradoxical negative association with profitability, challenging conventional assumptions about transparency and firm performance. Capital structure plays a significant mediating role, with environmental disclosure showing positive indirect effects on both performance metrics, while social disclosure exhibits negative indirect effects. These findings contribute to understanding ESG implementation dynamics in emerging markets, highlighting how each ESG component influences corporate performance through distinct pathways. The study offers practical insights for companies integrating sustainability practices, suggesting that strategic alignment between ESG initiatives and financial management is crucial for optimizing performance outcomes in Indonesia's evolving business landscape.

Keywords

ESG Disclosure, Firm Value, Profitability, Capital Structure.

1. Introduction

In today's globalized world, the landscape of business development has evolved into a more intricate and ever-changing realm. Stakeholders, encompassing investors, regulatory bodies, and the wider community, now place significant emphasis on matters concerning the environment, social responsibility, and corporate governance. In an era where consciousness of broader impacts has become paramount, it is imperative for corporations to transcend the narrow pursuit of profit and instead embrace a vigilant stewardship over the environmental, social, and governance repercussions woven into the fabric of their enterprise (Atan et al., 2018). The Environmental, Social, and Governance (ESG) framework has arisen as an all-encompassing assessment tool. It serves to evaluate how well corporations perform in relation to their environmental footprint, their dedication to social responsibility, and the quality of their corporate governance practices, all of which are outcomes of their operational activities (Ningwati et al., 2022; Saygili et al., 2022; Sklavos et al., 2024).

Integrating Environmental, Social, and Governance (ESG) reporting into the very heart of corporate strategy has emerged as a pivotal focus, capturing the keen interest of scholars and industry practitioners alike an endeavor that signifies a profound shift toward responsible and sustainable business practices. This heightened attention stems from the considerable influence that ESG disclosure can potentially exert on a company's overall performance (Saygili et al., 2022). Integrating Environmental, Social, and Governance (ESG) reporting into the very heart of corporate strategy has emerged as a pivotal focus, capturing the keen interest of scholars and industry practitioners alike an endeavour that signifies a profound shift toward responsible and sustainable business practices. It demonstrates the extent to which a company is working to lessen its negative impacts on the environment, advance social responsibility throughout its operations, and maintain sound governance structures (Bloomberg, 2023). Notwithstanding the worldwide momentum building towards greater transparency in Environmental, Social, and Governance (ESG) matters, research based on real-world data concerning its financial effects has yielded varied and sometimes contradictory results. This is particularly evident in developing economies, such as Indonesia, where the integration of ESG principles and practices is still in its early stages of progression (Ningwati et al., 2022; Luckyardi, 2024). Certain scholarly works posit that the incorporation of Environmental, Social, and Governance (ESG) practices can lead to an increase in a company's value and its earnings potential. This enhancement is attributed to factors such as the streamlining of operational processes, the strengthening of trust among stakeholders, and the greater appeal to potential investors (Dalal & Thaker, 2019; Naeem et al., 2021). For instance, the findings of Lucia et al. (2020) indicate a positive correlation between how well a company performs in Environmental, Social, and Governance aspects and its Return on Assets (ROA). This suggests that embracing sustainable practices may lead to improved financial gains. On the other hand, alternative studies emphasize the difficulties inherent in incorporating ESG principles, sometimes revealing an absence of a clear connection or even adverse financial consequences. These negative impacts can arise from the greater expenses associated with putting ESG measures into practice and the strains of reorganizing the company's structure (Grisales & Caracuel, 2021; Aydoğmuş et al., 2022).

These divergent findings may stem from differences in regulatory frameworks, stakeholder expectations, and firm-specific characteristics such as size, industry, and financial structure (Khodijah et al., 2023; Ning, 2024). Within Indonesia, the formalization of Environmental, Social, and Governance (ESG) regulations occurred through the issuance of POJK No. 51/POJK.03/2017. This regulatory framework

requires companies to make public their economic, social, and environmental endeavors. However, the actual impact of this mandated disclosure on shaping market outcomes and company performance in the Indonesian context is still a subject of uncertainty (Sudarni & Puspitasari, 2023). Moreover, a critical consideration is that Environmental, Social, and Governance (ESG) scoring systems, such as those offered by Bloomberg, predominantly gauge the caliber of a company's disclosures rather than the substantive results of their sustainability efforts. This focus on the quality of reporting, as opposed to actual sustainability performance, has the potential to mask the authentic association between a company's ESG undertakings and key financial indicators like its market valuation and profitability (Bloomberg, 2023; Veeravel et al., 2024). The role of capital structure is also increasingly recognized as a critical factor that may mediate the ESG–performance link, as companies with strong ESG performance may gain access to more favorable financing conditions, thereby influencing profitability and market valuation (Liang & Renneboog, 2017; Hersugondo & Aliyuna, 2024). Given the complex nature of these interactions and the inconsistent results in previous studies, there is an evident need for more thorough investigation. In particular, it is crucial to examine how each component of Environmental, Social, and Governance (ESG) factors uniquely impacts a company's value and its profitability. This examination should particularly consider the role of capital structure within the shifting context of developing economies.

2. Literature Review

2.1. Theoretical Foundation

The reporting of Environmental, Social, and Governance (ESG) information has become a subject of considerable focus within academic inquiry, largely due to its possible effects on a company's financial standing and earnings capacity. Although this area has attracted increasing scholarly attention, the body of research investigating these connections reveals varied and sometimes contradictory results, notably within the context of emerging economies. To establish a basis for comprehending the intricate interplay among ESG disclosure, firm value, profitability, and capital structure, this review of existing literature brings together pertinent theoretical frameworks and empirical evidence.

2.2. Alignment Theory

Robert S. Kaplan and David P. Norton's Alignment Theory offers a theoretical structure that underscores the significance of harmonizing a company's overarching strategy with its internal components. The central tenet of this framework is that such strategic alignment is crucial for the successful attainment of desired corporate outcomes (Elbanna et al., 2022). In the context of ESG disclosure implementation, this theory explains how to generate value and improve profitability, businesses must ensure their Environmental, Social, and Governance (ESG) practices are in harmony with their overarching business strategies. This alignment can be achieved through the skilful management of their capital structure.

The appeal of Environmental, Social, and Governance (ESG) investments has grown significantly, driven by their possible advantages for both investors and the broader community (Zhong, 2023). By factoring in environmental, social, and governance aspects when making investment choices, investors can pinpoint companies that exhibit not just financial stability but also a commitment to responsible corporate conduct. Employing the perspective of Alignment Theory, the congruence between financial objectives and these values can be examined through social-ecological network analysis (SENA). This analytical method takes into account the ways in which social entities connect and how these interrelationships influence sustainability and environmental oversight (Sayles & Baggio, 2017).

2.3. ESG Components

The systematic reporting of a company's environmental performance and its implemented practices constitutes environmental disclosure. This form of disclosure functions as a standard against which a company's handling of environmental consequences, arising from its operational activities as it strives for sustainable business practices, can be assessed (Bloomberg, 2023). This dimension includes carbon emissions management, energy efficiency, waste management, and natural resource conservation. Social disclosure focuses on a company's effectiveness in addressing social issues, enabling the company to manage risks and opportunities for social sustainability (Bloomberg, 2023). This dimension encompasses employee welfare, human rights, community involvement, social inclusion, and corporate social responsibility initiatives.

A systematic method employed to assess corporate governance practices is reflected in governance disclosure. By integrating both numerical metrics and descriptive analyses, this disclosure offers a thorough understanding of a company's governance practices, established policies, and organizational framework (Bloomberg, 2023). This includes board structure, audit policies, risk management committees, and compliance with regulations and governance standards. Firm value represents the total selling price or the level of willingness of potential buyers to pay when a company is offered for sale. Meanwhile, profitability serves as a crucial measure of a company's financial performance, reflecting its capacity to produce profits relative to revenue, assets, or equity. Consequently, this metric aids in evaluating the company's financial stability and operational effectiveness (Titman et al., 2018).

Capital structure encompasses the mix of short-term liabilities, long-term obligations, and shareholders' equity that a company employs to finance its business activities. Achieving an optimal capital structure is of paramount importance for the purpose of increasing a company's worth and profitability, given that it dictates both the cost of obtaining funds and the company's capacity to adapt financially. Although academic interest in the disclosure of Environmental, Social, and Governance (ESG) information is increasing, studies examining its effect on a company's financial performance and earning capacity are still limited and yield inconsistent results. Research into the relationship between ESG disclosure and firm value generally supports one of two perspectives: those studies that propose a positive correlation and those that suggest either an insignificant or even a negative relationship.

The research conducted by Saygili et al. (2022) indicated a positive link between Environmental, Social, and Governance (ESG) scores and a company's market value, suggesting that firms that integrate ESG principles are generally rewarded with higher valuations and greater investor appeal. Conversely, the work of Ningwati et al. (2022) revealed an inverse relationship, demonstrating that the disclosure of ESG information was associated with a negative market response, ultimately leading to a reduction in company value.

Likewise, studies investigating the connection between Environmental, Social, and Governance (ESG) disclosure and a company's profitability have yielded conflicting results. In their meticulous exploration, Lucia et al. (2020) revealed a compelling harmony between ESG principles and corporate vitality, notably reflected in the firm's Return on Assets. Their findings resonate with those of Naeem et al. (2021), who also discerned a meaningful, positive link connecting ESG engagement with both market valuation through Tobin's Q and profitability metrics like ROA. Yet, amidst this chorus of affirmation, Grisales and Caracuel (2021) offered a contrasting note: an inverse relationship, suggesting that higher ESG scores may, in some instances, hinder a company's capacity to generate profit a reminder that the narrative of sustainability and profit is as complex as it is compelling.

Several studies have suggested that comprehensive environmental disclosures can enhance a company's market valuation. In their meticulous study, Dalal and Thaker (2019) cast a keen eye upon sixty-five Indian enterprises, their roots anchored in the NSE 100 ESG Index between the years of 2015 and 2017. They uncovered a gentle but compelling truth: that the virtues of environmental, social, and governance excellence subtly yet surely bolstered both the firms' profitability measured through the return on assets and their overall worth, as glimpsed through Tobin's Q ratio. Likewise, Ning (2024) explored the bustling markets of Shanghai and Shenzhen from 2014 to 2020, revealing that the act of unveiling environmental information bore a significant, positive relationship with the valuation of firms an affirmation that transparency in ecological matters weaves itself into the fabric of corporate value. In the course of their inquiry, Giannopoulos et al. (2022) examined Norwegian publicly traded enterprises spanning the years from 2010 to 2019, uncovering a discernible and meaningful correlation: higher ESG scores appeared to elevate firm value. Yet, in the tangled web of this narrative, other voices emerge Aydoğmuş et al. (2022) whose findings cast doubt upon this optimism, suggesting that environmental disclosures, despite their virtue, failed to wield a positive influence on the worth of these firms.

Research by Aydoğmuş et al. (2022) indicated a significant positive influence of social disclosure on a company's market valuation. Companies that regularly report social information openly to the public can enhance company trust and reputation (Jain et al., 2019). This increased trust and reputation are expected to attract investors, enhance customer loyalty, and create harmonious relationships, thereby increasing company value.

The findings of Aydoğmuş et al. (2022) established a positive and significant impact of governance disclosure on a company's market value. Furthermore, Bhaskaran et al. (2020)'s investigation into the effect of governance disclosure on firm value, which encompassed 4,887 companies between 2014 and 2018, revealed that companies demonstrating strong governance performance are inclined to yield greater market value. This suggests the presence of competitive advantages that ultimately generate value for stakeholders. In their meticulous examination of firms traded on the Turkish Stock Exchange between 2007 and 2017, Saygili et al. (2022) uncovered a disconcerting trend: the divulgence of environmental information bore a negative correlation with a company's financial success. Yet, amid this complexity, their analysis also illuminated a contrasting truth namely, that diligent reporting on governance practices bore a positive and statistically significant relationship to financial performance.

The research conducted by Castillo et al. (2024) demonstrated that environmental disclosure has a positive effect on Corporate Financial Performance (CFP), suggesting that increased transparency in environmental information is associated with more accurate profit forecasts by analysts. Similarly, Dalal and Thaker (2019)'s study of polluting industries in the United States between 1990 and 2003 found that environmental disclosure has the potential to improve Corporate Financial Performance. Furthermore, Xie et al. (2019)'s global analysis of numerous companies, focusing on the connection between various Environmental, Social, and Governance (ESG) initiatives and financial performance, revealed that a majority of ESG initiatives exhibit a positive relationship with financial outcomes.

In their meticulous analysis, Aydoğmuş et al. (2022) illuminated the compelling truth that social disclosure yields a notably positive and significant effect on a company's profitability. Similarly, the rigorous inquiry conducted by Qiu et al. (2016), examining firms listed in the FTSE 350 from 2005 to 2009, revealed that the dissemination of social information substantively enhances Corporate Financial Performance, underscoring the profound link between transparency and economic success.

In study, Aydoğmuş et al. (2022) illuminated the compelling link between transparency in governance and a firm's financial success, revealing that the dissemination of governance-related information markedly enhances profitability. Echoing these findings, Febiyanti and Hersugondo (2022)'s examination of 807 companies on the Indonesia Stock Exchange from 2015 to 2020 further underscored this association, demonstrating that robust corporate governance practices are intrinsically tied to improved financial performance. Building upon prior inquiry, Han et al. (2016) examined corporations traded on the Korea Stock Market (KOSPI) from 2008 to 2014, uncovering a compelling and statistically significant link: the transparency of governance disclosures correlates positively with corporate earnings, suggesting that openness in governance practices may indeed serve as a catalyst for financial performance (Khasanah, & Sasana, 2022; Marpaung et al., 2024; Suparjo & Dana, 2024).

2.4. The Mediating Role of Capital Structure

Rasera et al. (2023) found that companies from countries with higher GDP levels tend to require larger capital structures to achieve positive Corporate Social Responsibility (CSR) indices, while companies from countries with lower GDP or smaller scale tend to require more minimal capital structures to demonstrate commitment to corporate social responsibility. Liang & Renneboog (2017) revealed that good corporate governance can increase investor confidence in management's ability to manage the company, enabling access to funding with more favorable terms and conditions such as lower interest rates or more accessible equity capital. Naseem et al. (2019) established that a company's capital structure plays a partial mediating role in how the characteristics of its Chief Executive Officer (CEO) influence its overall performance. Hersugondo and Aliyuna (2024) uncovered compelling evidence indicating that the capital structure functions as a mediator within the nexus of Corporate Governance practices and firm performance. Nonetheless, they described this mediating effect as a manifestation of inconsistent partial mediation, underscoring the nuanced and complex interplay at work.

Regarding the relationship between environmental disclosure and profitability, Clarkson et al. (2011) observed that companies exhibiting more extensive environmental reporting often benefit from improved access to financial resources, characterized by reduced capital expenses. This easier access and lower costs directly contribute to enhanced profitability for these firms.

In examining the intricate dance between social disclosure and profitability, Hunjra et al. (2020) illuminate the pivotal role of capital structure as an intermediary bridging the realm of corporate social responsibility (CSR) endeavors with the tangible realities of financial performance. This suggests that skillful management of capital can amplify the advantages derived from CSR activities. Furthermore, Fatemi et al. (2018) found that robust social disclosure enables companies to secure financing under more advantageous conditions, including reduced interest rates, because such firms are perceived as having lower social risk profiles.

In exploring the intricate dance between governance disclosure and corporate profitability, Febiyanti and Hersugondo (2022) illuminate a compelling truth. Their examination of 807 companies listed on the Indonesia Stock Exchange from 2015 to 2020 reveals that capital costs serve as a vital conduit an intermediary through which the practices of corporate governance influence the financial success of a firm.

Drawing upon the extensive body of existing scholarship and recognizing the heterogeneous results yielded by prior investigations especially within the context of developing economies such as Indonesia this study endeavors to explore the impact of Environmental, Social, and Governance (ESG) disclosures on corporate market valuation and profitability. Additionally, it seeks to elucidate the mediating role of capital structure within this dynamic, concentrating specifically on firms listed on the Indonesia Stock Exchange from 2017 to 2023.

2.5. Hypotheses Development

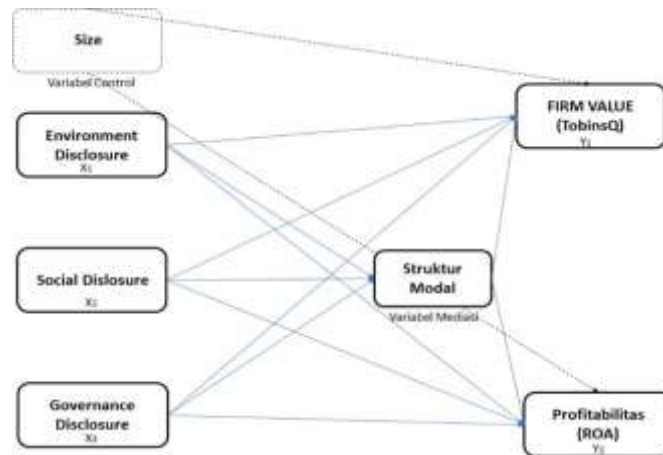


Figure 1. Conceptual Framework

Drawing from both the theoretical framework and previous empirical research, this study develops a series of hypotheses aimed at analyzing how ESG (Environmental, Social, and Governance) disclosures relate to corporate performance. It is posited that each dimension of ESG positively contributes to a firm's value and profitability, as such disclosures are thought to enhance transparency, increase operational efficiency, foster stakeholder trust, and improve corporate reputation. The hypothesis asserts that environmental disclosure positively affects firm value (H₁) and profitability (H₄), primarily because of its links to cost efficiency, better resource management, and a favorable public perception. Similarly, social disclosure is projected to exert a beneficial effect on firm value (H₂) and profitability (H₅) by promoting stronger employee relations, heightened customer loyalty, and more effective community engagement. Governance-related disclosures are likewise expected to have a constructive impact on both firm value (H₃) and profitability (H₆), due to their role in bolstering corporate oversight, reinforcing accountability mechanisms, and enhancing investor trust. Furthermore, the research investigates capital structure as a mediating variable, under the assumption that ESG activities shape financial strategies and influence firms' access to capital. As such, it is proposed that capital structure serves as a mediator in the associations between environmental disclosure and firm value (H₇) and profitability (H₁₀); social disclosure and firm value (H₈) and profitability (H₁₁); as well as governance disclosure and firm value (H₉) and profitability (H₁₂).

3. Methods

Adopting a positivist philosophical stance, this research utilizes a quantitative methodology. The study is structured to examine the formulated hypotheses through the application of statistical analysis (Sekaran, 2016). This research investigates how Environmental, Social, and Governance (ESG) disclosure influences a company's market value and its profitability, while also considering the role of capital structure as an intermediary factor. To conduct this analysis, secondary data was gathered from Bloomberg reports, concentrating on ESG ratings, indicators of financial performance, and metrics related to capital structure for companies that were listed on the Indonesia Stock Exchange during the period spanning from 2017 to 2023.

The study includes a total of 915 companies across 11 different sectors that are listed on the Indonesia Stock Exchange. Through the application of a purposive sampling method, a subset of 42 companies spanning 9 sectors was chosen based on particular requirements. These criteria included companies that had completed their Initial Public Offering (IPO) by the year 2017, had a consistent record of publishing financial reports throughout the entire study period from 2017 to 2023, and had regularly disclosed their Environmental, Social, and Governance (ESG) scores within the Bloomberg database during the same timeframe.

Drawing inspiration from the scholarly tone of a renowned author, the present study employs Firm Value measured via Tobin's Q , defined as the ratio of market capitalization to the book value of equity, as established by Alareeni and Hamdan (2020) and Profitability, gauged through Return on Assets (ROA), which reflects net income relative to total assets, as delineated by Setiawan (2022), as the primary outcome variables. The predictor variables consist of Environmental Disclosure, Social Disclosure, and Governance Disclosure, each quantified through Bloomberg scores on a scale from 0 to 100, providing a comprehensive framework for analysis. These scores assess performance across a spectrum of sustainability indicators (Bloomberg, 2023). In the intricate tapestry of corporate finance, the Capital Structure emerges as a pivotal intermediary, its essence captured succinctly through the Debt-to-Asset Ratio (DAR) a simple yet profound measure derived by dividing total debt by total assets Syadiah and Siswanto (2022). Adjunct to this, the measure of Firm Size, expressed through the natural logarithm of total assets, is incorporated as a controlling element within the analytical framework, underscoring its significance amidst the myriad variables at play (Aydoğmuş et al., 2022).

The statistical analysis for this study utilizes Partial Least Squares Structural Equation Modeling (PLS-SEM), selected for its effectiveness in managing intricate models involving numerous constructs and its suitability for analyses with moderately small sample sizes (Hair Jr et al., 2023). The analytical process consists of two stages: First, the measurement model (external model) is evaluated to determine the reliability and validity of the constructs; next, the structural model (internal model) is evaluated to test the relationships between these constructs. The assessment of the measurement model involves a meticulous scrutiny of its constituent elements: first, the reliability of the indicators, which are to exhibit outer loadings of no less than 0.7; second, the internal consistency, gauged by composite reliability, should meet or exceed the threshold of 0.7; third, the convergent validity, determined through the Average Variance Extracted (AVE), ought to be at least 0.5; and finally, the discriminant validity must be corroborated through both the Fornell-Larcker criterion and the examination of cross-loadings, ensuring that each construct remains distinct and well-defined within the overarching framework (Hair Jr et al., 2023).

The assessment of the structural model includes examining various important metrics such as the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and path coefficients. To assess multicollinearity, the Variance Inflation Factor (VIF) is utilized, with an acceptable threshold set at a maximum value of 5.0. Heteroscedasticity issues are managed through the application of consistent Partial Least Squares (PLS) bootstrapping, employing 5,000 resamples to ensure robustness. Hypotheses are tested through bootstrapping techniques, where acceptance is determined by achieving a t-statistic greater than 1.96 and a p-value below 0.05, corresponding to a 95% confidence interval (Hair Jr et al., 2023). For hypotheses involving mediation, the analysis employs Specific Indirect Effects with bootstrapping, and a mediation effect is considered significant if the bootstrap confidence interval does not include zero. Additionally, the overall fit of the model is assessed by examining the standardized root mean square residual (SRMR), which

should be less than 0.08, and the normed fit index (NFI), which should exceed 0.90 to indicate a good model fit (Hair Jr et al., 2023).

4. Results

Looked at information from 42 companies in Indonesia from 2017 to 2023. Our study shows that when companies share details about how they care for the environment, treat people, and run their business (called ESG), it can affect how much money they are worth and how much profit they make. We also found that the way a company manages its money and debts (called capital structure) can help explain how ESG sharing impacts these things.

Table 1. Results of Hypothesis-testing

Path	Coefficient (β)	p-value
Panel A: Direct Effects on Tobin's Q		
ENV \rightarrow Tobin's Q	0.055	0.218
SOC \rightarrow Tobin's Q	0.148	0.009
GOV \rightarrow Tobin's Q	-0.029	0.326
Panel B: Direct Effects on ROA		
ENV \rightarrow ROA	0.227	0.007
SOC \rightarrow ROA	0.084	0.121
GOV \rightarrow ROA	-0.153	0.010
Panel C: Indirect Effects through Capital Structure (DEBT)		
ENV \rightarrow DEBT \rightarrow Tobin's Q	0.144	0.000
SOC \rightarrow DEBT \rightarrow Tobin's Q	-0.149	0.000
GOV \rightarrow DEBT \rightarrow Tobin's Q	-0.029	0.188
ENV \rightarrow DEBT \rightarrow ROA	0.059	0.008
SOC \rightarrow DEBT \rightarrow ROA	-0.061	0.006
GOV \rightarrow DEBT \rightarrow ROA	-0.012	0.211

An exploration into the immediate impacts of Environmental, Social, and Governance (ESG) factors on a corporation's market valuation—measured by Tobin's Q reveals a tapestry of varied connections. As detailed in Table 1, Panel A, environmental disclosure (ENV) shows a positive yet statistically non-significant correlation with firm value ($\beta = 0.055$, $p = 0.218$), thereby offering no support for Hypothesis 1. This outcome implies that although environmental efforts might have a positive contribution to a company's value, investors in Indonesia may not yet fully incorporate environmental performance into their assessments of company valuations. This could be attributed to the nascent stage of awareness and integration of ESG factors within the Indonesian market.

In contrast, social disclosure (SOC) exerts a notably positive and statistically significant influence on firm value ($\beta = 0.148$, $p = 0.009$), thereby underpinning Hypothesis 2. This finding is consistent with the research of Aydoğmuş et al. (2022) and Deegan (2002), affirming that companies that consistently disclose social information are able to strengthen stakeholder trust and their reputation, which in turn can attract investors and lead to an increase in market valuation. The notable influence of social disclosure might indicate a rising level of investor awareness regarding social sustainability concerns within Indonesia.

In contrast, governance disclosure (GOV) reveals a negative but statistically insignificant association with firm value ($\beta = -0.029$, $p = 0.326$), thus failing to support Hypothesis 3. This unanticipated outcome diverges from the findings of Aydoğmuş et al. (2022), and Bhaskaran et al. (2020), implying that investors within the Indonesian market might not yet place a premium on governance disclosures.

Alternatively, it is possible that enhancements in governance practices entail immediate costs that temporarily overshadow any perceived advantages.

An analysis of how Environmental, Social, and Governance (ESG) factors directly affect profitability, measured through Return on Assets (ROA), uncovers compelling differences, as depicted in Table 1, Panel B. Notably, environmental disclosure exhibits a statistically significant and positive impact on profitability ($\beta = 0.227$, $p = 0.007$), thereby lending support to Hypothesis 4. This result is consistent with the findings of Aerts et al. (2008), Clarkson et al. (2011), and Xie et al. (2019), indicating that environmental efforts such as improved resource utilization and decreased waste generation can lead to enhanced operational efficiency and reduced expenditures, directly contributing to greater profitability.

Social disclosure demonstrates a positive but non-significant relationship with profitability ($\beta = 0.084$, $p = 0.121$), failing to support Hypothesis 5. This result diverges from Aydoğmuş et al. (2022) and Qiu et al. (2016), indicating that while social initiatives may generate intangible benefits, their direct financial impact may take longer to materialize in Indonesia's business context.

Unexpectedly, the data reveals that disclosures related to governance exert a markedly negative influence on profitability ($\beta = -0.153$, $p = 0.010$), thereby challenging Hypothesis 6 and running counter to the conclusions drawn by Aydoğmuş et al. (2022), Febiyanti and Hersugondo (2022), as well as Han et al. (2016). The negative but non-significant relationship between governance disclosure and firm value might be a consequence of the initial investments and expenditures required for establishing strong governance frameworks and practices. These upfront costs could potentially put a temporary strain on a company's financial resources before any long-term advantages are realized and reflected in market valuations.

In examining Table 1, Panel C, one discerns the subtle yet compelling ways in which the fabric of a company's capital structure weaves itself between the threads of Environmental, Social, and Governance (ESG) elements and the broader measure of market worth. Notably, the act of environmental disclosure emerges as a significant catalyst its influence on firm value, mediated through the intricacies of capital structure, bears a statistically robust and positive sign ($\beta = 0.144$, $p < 0.001$). This finding lends credence to Hypothesis 7, illuminating the delicate interplay that underscores the modern corporate landscape. This result is consistent with the trade-off theory and the seminal work of Modigliani & Miller (1958), implying that robust environmental performance can lead to better access to financing with more advantageous conditions. This improved access, in turn, optimizes the capital structure and ultimately increases the company's market value.

Conversely, social disclosure demonstrates a statistically significant negative indirect impact on a company's market value when mediated by capital structure ($\beta = -0.149$, $p < 0.001$), a finding that contradicts Hypothesis 8. This surprising outcome indicates that although social initiatives may strengthen connections with stakeholders, they could also necessitate considerable investments. These investments might lead to a temporary increase in debt levels or otherwise affect the optimization of the capital structure, potentially resulting in a reduced market valuation.

Governance disclosure, when mediated by capital structure, exhibits a statistically insignificant indirect impact on firm value ($\beta = -0.029$, $p = 0.188$), thus not supporting Hypothesis 9. This outcome contrasts with the findings of Liang & Renneboog (2017), Naseem et al. (2019), and Hersugondo and Aliyuna (2024), implying that the positive influence of governance practices on achieving an optimal capital structure may not yet be fully evident within the Indonesian market.

Regarding the connection between Environmental, Social, and Governance (ESG) elements and a company's profitability, capital structure assumes different

intermediary roles. Specifically, environmental disclosure exhibits a statistically significant positive indirect influence on profitability when mediated by capital structure ($\beta = 0.059$, $p = 0.008$), thereby supporting Hypothesis 10. This result is consistent with the research of Clarkson et al. (2011), which suggests that robust environmental performance can result in reduced financing expenses and a more effective allocation of capital, consequently leading to improved profitability.

Conversely, social disclosure demonstrates a statistically significant negative indirect impact on profitability when mediated by capital structure ($\beta = -0.061$, $p = 0.006$), a finding that contradicts Hypothesis 11 and differs from the results reported by Hunjra et al. (2020) and Fatemi et al. (2018). This outcome implies that investments in social initiatives might lead to a temporary rise in the cost of capital or negatively influence the optimal capital structure, thereby creating short-term challenges for profitability, even if long-term advantages are anticipated. When mediated by capital structure, governance disclosure demonstrates a statistically insignificant indirect impact on profitability ($\beta = -0.012$, $p = 0.211$), thus not supporting Hypothesis 12. This finding is in opposition to the research of Febiyanti and Hersugondo (2022), suggesting that the interplay between governance practices, the optimization of capital structure, and a company's profitability might be more intricate or necessitate a longer period to become apparent within the business environment of Indonesia.

5. Discussion

This trend suggests that investors in Indonesia recognize and value the social initiatives undertaken by companies. This finding aligns with the research of Aydoğmuş et al. (2022) and supports Deegan (2002) legitimacy theory, which states that transparent social reporting enhances a company's reputation and builds stakeholder trust. The results of this analysis reveal a complex and nuanced relationship between the different elements of ESG and financial performance metrics, highlighting the intricate nature of implementing sustainability initiatives within a developing market such as Indonesia.

The results of our analysis reveal that environmental disclosure has a positive but statistically insignificant direct influence on a company's market value, while it demonstrates a significant positive impact on its profitability. This divergence is especially interesting because it implies that although environmental efforts directly contribute to enhanced operational efficiency and improved financial outcomes, these advancements are not yet fully appreciated by the Indonesian market. The insignificant relationship observed with Tobin's Q contrasts with the findings of studies conducted by Dalal and Thaker (2019) and Giannopoulos et al. (2022), which reported positive effects in different market contexts. This difference could potentially be explained by Indonesia's classification as a developing market where investor awareness and understanding of Environmental, Social, and Governance (ESG) factors are still in the process of evolving, a point highlighted by Luckyardi (2024).

Nevertheless, the statistically significant positive impact on profitability is consistent with the findings of Aerts et al. (2008) and Clarkson et al. (2011), which affirm that environmental management practices can translate into concrete financial advantages through enhanced resource efficiency, decreased waste generation, and energy conservation measures. This implies that the operational benefits derived from environmental initiatives are realized irrespective of the level of market acknowledgment.

The statistically significant positive indirect influence of environmental disclosure on both a company's market value and its profitability, as mediated by capital structure, lends support to the alignment theory as proposed by Kaplan and

Norton (2006) and the perspectives of trade off theory. It is probable that companies demonstrating robust environmental performance benefit from more favorable financing conditions and are able to optimize their capital structure, which in turn leads to improvements in both their market valuation and financial returns. This outcome corroborates the observation made by Clarkson et al. (2011) that companies with a commitment to environmental responsibility often experience lower costs of capital, thereby establishing a beneficial cycle between sustainable practices and financial performance.

Our analysis indicates that social disclosure exerts a statistically significant positive direct influence on a company's market value, yet it does not show a significant impact on its profitability. This trend suggests that investors in Indonesia recognize and value the social initiatives undertaken by companies. This finding aligns with the research of Aydoğmuş et al. (2022) and supports Deegan (2002) legitimacy theory, which states that transparent social reporting enhances a company's reputation and builds stakeholder trust. The positive reaction from the market to social disclosure suggests an increasing level of awareness regarding social sustainability issues among investors in Indonesia.

Nevertheless, the absence of a significant direct correlation with profitability contrasts with the results reported by Qiu et al. (2016) in more developed economies. This discrepancy might be attributed to the fact that the returns on social investments often manifest over a longer period. Benefits such as improved employee retention, enhanced customer loyalty, and stronger community relationships tend to accrue gradually rather than producing an immediate impact on financial reports. This temporal delay is especially pertinent in emerging markets where the economic rationale for social sustainability is still in the process of being solidified.

In a surprising turn, social disclosure exhibits statistically significant negative indirect effects on both a company's market value and its profitability when mediated by capital structure. This unanticipated result stands in contrast to our initial hypotheses and the findings of Fatemi et al. (2018) and Hunjra et al. (2020). One potential explanation for this could be that implementing social initiatives within the Indonesian business environment necessitates significant initial investments. These substantial upfront costs might lead to a temporary increase in a company's debt levels or cause a deviation from its optimal capital structure, thus creating short-term financial strain despite the possibility of long-term advantages. Rasera et al. (2023) observed that companies operating in countries with lower GDP levels may need different capital structures to effectively implement Corporate Social Responsibility (CSR). This supports the idea that contextual factors are important when evaluating the effects of Environmental, Social, and Governance (ESG) practices across various economic settings.

The outcomes pertaining to governance disclosure reveal what are perhaps the most surprising trends in our research. Specifically, governance disclosure demonstrates statistically insignificant negative direct impacts on a company's market value and significant negative impacts on its profitability, a result that contradicts our initial hypotheses as well as the findings of studies like Bhaskaran et al. (2020) and Han et al. (2016). Furthermore, the indirect effects of governance disclosure, mediated through capital structure, are also found to be statistically insignificant for both the company's market value and its profitability.

These unexpected findings might be attributable to the considerable initial financial outlays involved in establishing strong governance frameworks within the Indonesian business landscape. The implementation of measures such as greater board independence, the formation of audit committees, the establishment of compliance systems, and the enhancement of transparency mechanisms frequently necessitates significant resource allocation before any resulting advantages can be realized. This explanation is consistent with the viewpoint of institutional theory,

which suggests that governance reforms can entail substantial costs of adaptation in developing markets that possess distinct institutional settings.

The observed differences from findings in more developed economies underscore the potential influence of context on the implementation of governance practices. As pointed out by Saygili et al. (2022), the impact of governance reporting can vary across different markets based on the level of institutional maturity. In Indonesia, which, as indicated by Luckyardi (2024), is in the initial phases of adopting Environmental, Social, and Governance (ESG) principles, the expenses associated with enhancing governance structures might temporarily exceed the perceived advantages. This could be particularly true when the impetus for implementation stems from regulatory requirements rather than a strategic incorporation of these practices into the core business operations.

The statistically insignificant mediating effect of capital structure on the relationship between governance and performance stands in contrast to the findings of Febiyanti and Hersugondo (2022), suggesting that in Indonesia, governance practices may not yet substantially affect investor confidence or the conditions of financing. This could imply that the capital markets within Indonesia are still in the process of developing refined assessment tools for evaluating the quality of corporate governance.

The results of our study corroborate that capital structure functions as a notable intermediary in the connection between particular elements of Environmental, Social, and Governance (ESG) and financial outcomes, although this mediating effect is not consistent across all aspects. This observation lends support to the broader framework of alignment theory, as proposed by Kaplan and Norton (2006), which underscores the significance of harmonizing sustainability endeavors with financial strategies to generate value.

In accordance with the venerable trade off theory of Modigliani and Miller (1958), the discernible and statistically significant indirect effects of environmental disclosure channeled through the company's capital structure upon both its market valuation and profitability emerge as a testament to the intricate balance at play. This indicates that a firm's commitment to environmental performance is not merely a moral obligation but also a strategic instrument in refining and harmonizing its capital framework. Firms with strong environmental reputations may experience benefits such as lower perceived risk, better access to environmentally focused financing options, and increased investor trust. These advantages can lead to more favorable capital costs, which in turn enhance both the company's market valuation and its profitability.

A noteworthy contrast arises from the statistically significant negative indirect effects of social disclosure when mediated by capital structure. This trend might be indicative of the capital-intensive characteristics of social initiatives within Indonesia. Substantial investments in areas such as employee well-being, community development, and social infrastructure could potentially lead to a temporary increase in a company's debt levels or interfere with the ideal allocation of capital. Although these investments may generate long-term advantages, their immediate effect on the capital structure seems to create financial strain in the short term.

The statistically insignificant mediating effect of capital structure on the relationship between governance and performance presents a contrast to the findings of Liang and Renneboog (2017), implying that the ways in which governance practices influence financial outcomes in Indonesia may differ from those seen in more developed economies. This underscores the importance of developing a context-specific understanding of how Environmental, Social, and Governance (ESG) implementation pathways function within emerging economic landscapes.

6. Conclusion

Based on data collected from companies listed on the Indonesia Stock Exchange between 2017 and 2023, this study investigates how Environmental, Social, and Governance (ESG) disclosures influence both a company's market value and profitability. Additionally, it examines the mediating effect of capital structure. The results highlight that the influence of each ESG component on financial performance differs, demonstrating the complex and multifaceted nature of sustainability practices in a developing market. Environmental disclosure consistently demonstrates a positive influence on profitability and indirectly contributes to both firm value and profitability through an enhanced capital structure, suggesting a strong connection between environmental initiatives, operational efficiency gains, and financing benefits. Social disclosure directly impacts firm value positively but exhibits a negative indirect effect through capital structure, potentially indicating short-term financial pressures resulting from substantial investments in social initiatives, despite positive market sentiment. Governance disclosure produces the most unexpected results, showing no significant impact on firm value and a negative effect on profitability, possibly stemming from the substantial costs associated with governance reforms that are driven more by regulatory compliance than by strategic integration. The mediating role of capital structure, particularly for environmental and social disclosures, aligns with theoretical predictions and emphasizes the significance of harmonizing sustainability efforts with financial decision-making processes. Ultimately, this study improves the understanding of ESG in emerging markets by examining the unique effects of its individual components, offering valuable practical insights for corporate leaders, investors, and policymakers aiming to incorporate ESG principles into long-term financial sustainability.

Several limitations should be considered when interpreting the findings of this research. The relatively brief study period spanning 2017 to 2023 might not entirely encompass the long-term consequences of Environmental, Social, and Governance (ESG) initiatives, particularly for governance and social aspects that tend to develop over extended periods. Furthermore, while Bloomberg ESG scores provide standardized measurements, their use might not fully represent the actual on-the-ground sustainability outcomes or be perfectly adapted to the specific characteristics of Indonesia as an emerging market. The limited sample size of 42 companies, predominantly larger firms with consistent ESG reporting, also restricts the extent to which these results can be generalized, especially to smaller or newer companies. The lack of detailed analysis at the industry level and qualitative insights into ESG strategy and implementation further limits a more thorough understanding of how sustainability practices affect financial results. In light of these limitations, it is advisable for companies to embrace a strategic approach to ESG, prioritizing environmental initiatives and ensuring that sustainability efforts are aligned with financial objectives. Investors should take into account the varied mechanisms and time horizons through which ESG factors influence performance, while policymakers are encouraged to develop regulations that are tailored to specific industries and to support businesses through transitional frameworks. Future research endeavors should aim to explore longer timeframes, integrate qualitative methodologies, and examine specific ESG practices, financing tools, and broader impacts on corporate risk and investor behavior to gain a more profound understanding of ESG dynamics within emerging markets.

References

- Aerts, W., Cormier, D., & Magnan, M. (2008). Corporate environmental disclosure, financial markets and the media: An international perspective. *Ecological Economics*, 64(3), 643–659.
- Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance (Bingley)*, 20(7), 1409–1428.
- Atan, R., Alam, M. M., Said, J., & Zamri, M. (2018). The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality: An International Journal*, 29(2), 182–194.
- Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22(2), 119–127.
- Bhaskaran, R. K., Ting, I. W. K., Sukumaran, S. K., & Sumod, S. D. (2020). Environmental, social and governance initiatives and wealth creation for firms: An empirical examination. *Managerial and Decision Economics*, 41(5), 710–729. <https://doi.org/10.1002/mde.3131>
- Bloomberg. (2023). *Environmental, Social and Governance (ESG) Scores Methodology and Field Information A Bloomberg Professional Services Offering*. 1–50.
- Castillo, V. P. N., García-Benau, M. A., Sierra-García, L., & Gambetta, N. (2024). Are material ESG issues making their way into key audit matters? An analysis of Colombian innovative companies. *Journal of Innovation & Knowledge*, 9(4), 100574.
- Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2011). Does it really pay to be green? Determinants and consequences of proactive environmental strategies. *Journal of Accounting and Public Policy*, 30(2), 122–144.
- Dalal, K. K., & Thaker, N. (2019). ESG and corporate financial performance: A panel study of Indian companies. *IUP Journal of Corporate Governance*, 18(1), 44–59.
- Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282–311.
- Elbanna, S., Kamel, H., Fatima, T., & Eid, R. (2022). An investigation of the causality links in the balanced scorecard: The case of the Gulf Cooperation Council hospitality industry. *Tourism Management Perspectives*, 41(3),
- Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global finance journal*, 38(1), 45–64.
- Febiyanti, E., & Hersugondo, H. (2022). Corporate Governance and Profitability: The Role of Cost of Capital as Mediation. *Jurnal Keuangan Dan Perbankan*, 26(2), 460–474.
- Giannopoulos, G., Kihle Fagernes, R. V., Elmarzouky, M., & Afzal Hossain, K. A. B. M. (2022). The ESG disclosure and the financial performance of Norwegian listed firms. *Journal of Risk and Financial Management*, 15(6), 237.
- Grisales, E. D., & Caracuel, J. A. (2021). Environmental, Social and Governance (ESG) Scores and Financial Performance of Multilatinas: Moderating Effects of Geographic International Diversification and Financial Slack. *Journal of Business Ethics*, 168(2), 315–334.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Cham, S. R. (2023). Review of Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook. In *Structural Equation Modeling: A Multidisciplinary Journal*, 30(1), 165–167.
- Han, J.-J., Kim, H. J., & Yu, J. (2016). Empirical study on relationship between corporate social responsibility and financial performance in Korea. *Asian Journal of Sustainability and Social Responsibility*, 1(1), 61–76.
- Hersugondo, H., & Aliyuna, A. (2024). Peran Struktur Modal sebagai Variabel Mediasi pada Pengaruh Corporate Governance dan Karakteristik CEO terhadap Kinerja Perusahaan. *AFRE Accounting and Financial Review*, 7(1), 88–106.
- Hunjra, A. I., Verhoeven, P., & Zureigat, Q. (2020). Capital structure as a mediating factor in the relationship between uncertainty, CSR, stakeholder interest and financial performance. *Journal of Risk and Financial Management*, 13(6), 117.
- Jain, M., Sharma, G. D., & Srivastava, M. (2019). Can sustainable investment yield better financial returns: A comparative study of ESG indices and MSCI indices. *Risks Journal*, 7(1), 22–42.
- Kaplan, R. S., & Norton, D. P. (2006). *ALIGNMENT Using The Balanced Scorecard to Create Corporate Synergies*. Harvard Business Scholl Press.

- Khasanah, U., & Sasana, H. (2022). Empirical relationship between gender equality and socio-economic developments: An error correction model. *Arthatama*, 6(1), 12-25.
- Khodijah, S., Fasa, M. I., & Suharto, S. (2023). Penerapan Green Banking di Lingkungan Bank BJB Syariah Indonesia. *Jihbiz: Jurnal Ekonomi, Keuangan Dan Perbankan Syariah*, 7(2), 111-123.
- Liang, H., & Renneboog, L. (2017). On the Foundations of Corporate Social Responsibility. *Journal of Finance*, 72(2), 853-910.
- Lucia, C. D., Paziienza, P., & Bartlett, M. (2020). Does good ESG lead to better financial performances by firms? Machine learning and logistic regression models of public enterprises in Europe. *Sustainability (Switzerland)*, 12(13), 1-26.
- Luckyardi, S. (2024). Editorial Volume 18 Issue 5: Special Issue on Sustainable Transformation Towards Digitalization. *Australasian Accounting, Business and Finance Journal*, 18(5), 1-5.
- Marpaung, C. R., Za'im Tsabit, I. A., & Pangestuti, I. R. D. (2024). The role of Gen-Z in supporting sustainable development through green economy towards Golden Indonesia 2045. *Research Horizon*, 4(4), 315-320.
- Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review*, 48(2), 261-297.
- Naeem, M., Ullah, H., & Jan, S. (2021). The impact of ESG practices on firm performance: Evidence from emerging countries. *Indian Journal of Economics and Business*, 20(1), 731-750.
- Naseem, M. A., Lin, J., Rehman, R. ur, Ahmad, M. I., & Ali, R. (2019). Does capital structure mediate the link between CEO characteristics and firm performance? *Management Decision*, 58(1), 164-181. <https://doi.org/10.1108/MD-05-2018-0594>
- Ning, W. (2024). The Impact of Environmental Information Disclosure on Carbon Efficiency. *Frontiers in Business, Economics and Management*, 15(3), 13-16.
- Ningwati, G., Septiyanti, R., & Desriani, N. (2022). Pengaruh Environment, Social and Governance Disclosure terhadap Kinerja Perusahaan. *Goodwood Akuntansi Dan Auditing Reviu*, 1(1), 67-78.
- Qiu, Y., Shaukat, A., & Tharyan, R. (2016). Environmental and social disclosures: Link with corporate financial performance. *British Accounting Review*, 48(1), 102-116.
- Rasera, P. P. de C., Passos, G. de A., & Colauto, R. D. (2023). Corporate social responsibility and capital budgeting. *Advances in Scientific and Applied Accounting*, 16(July), 197-211.
- Saygili, E., Arslan, S., & Birkan, A. O. (2022). ESG practices and corporate financial performance: Evidence from Borsa Istanbul. *Borsa Istanbul Review*, 22(3), 525-533.
- Sayles, J. S., & Baggio, J. A. (2017). Social-ecological network analysis of scale mismatches in estuary watershed restoration. *Proceedings of the National Academy of Sciences of the United States of America*, 114(10), E1776-E1785.
- Sekaran, U. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Setiawan, E. (2022). *Profitabilitas, Ukuran Perusahaan dan Pertumbuhan Asset Serta Pengaruhnya Terhadap Leverage pada Perusahaan (Teori Hingga Empirik)*. Perkumpulan Rumah Cemerlang Indonesia.
- Skavos, G., Theodossiou, G., Papanikolaou, Z., Karelakis, C., & Ragazou, K. (2024). Environmental, social, and governance-based artificial intelligence governance: Digitalizing firms' leadership and human resources management. *Sustainability*, 16(16), 7154.
- Sudarni, A. N. S., & Puspitasari, E. (2023). Pengaruh Tata Kelola Dan Kepatuhan Syariah Terhadap Kecurangan Pada Bank Umum Syariah. *Jurnal KRISNA: Kumpulan Riset Akuntansi*, 14(2), 175-188.
- Suparjo, S., & Dana, Y. A. (2024). The Role of Corporate Social Responsibility and Reputation Management in Global Marketing Success. *Economic and Business Horizon*, 3(3), 102-107.
- Syadiah, H., & Siswanto, E. (2022). Analisis Kinerja Keuangan Perusahaan BUMN Sebelum dan Sesudah Privatisasi. *E-Jurnal Akuntansi*, 32(4), 953.
- Titman, S., Keown, A. J., & Martin, J. D. (2018). *Financial management: Principles and applications*. Pearson.
- Veeravel, V., Murugesan, V. P., & Narayanamurthy, V. (2024). Does ESG disclosure really influence the firm performance? Evidence from India. *Quarterly Review of Economics and Finance*, 95(3), 193-202.

- Xie, J., Nozawa, W., Yagi, M., Fujii, H., & Managi, S. (2019). Do environmental, social, and governance activities improve corporate financial performance? *Business Strategy and the Environment*, 28(2), 286–300.
- Zhong, W. (2023). An analysis of focusing on ESG investment. *Highlights in Business, Economics and Management*, 17(1), 8–13.



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