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The Role of ESG and External Assurance in Firm Performance: External Assurance as a Moderator

Eduard Ary Binsar Naibaho, Dara Raudhotuzanah*
Department of Accounting, Faculty of Economics and Business, Universitas Pelita Harapan, Jakarta, Indonesia

ORCIDs:
First AUTHOR : https://orcid.org/0000-0002-4266-4193
Second AUTHOR : https://orcid.org/0009-0001-4059-7193

*Corresponding author email: dararz30@gmail.com

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ABSTRACT

Purpose: This study seeks to assess the impact of Environmental, Social, and Governance (ESG) factors and External Assurance on Firm Performance, with External Assurance acting as a moderating variable in the ESG-Firm Performance relationship. This research is based on agency theory, which explains the potential conflict of interest between management and shareholders over sustainability spending.

Method: This research employs a quantitative methodology, utilizing panel data regression analysis. The sample consists of 120 publicly listed non-financial companies from ASEAN-5 countries over the period 2019–2023. Secondary data were obtained through a literature review from S&P Capital IQ and Thomson Reuters Eikon, and the sample was selected using a purposive sampling technique.

Findings: The study's results indicate that ESG and External Assurance have a negative impact on Company Performance, as indicated by Tobin's Q, with coefficient values of -0.013 and -0.214. However, neither does it show a significant influence when measured by ROA. Furthermore, External Assurance influences the relationship between ESG and Company Performance (Tobin's Q) with a coefficient value of -0.002. Still, it does not affect the relationship when ROA is used as a measure of Firm Performance.

Novelty/Value: This study contributes to the current literature by providing empirical evidence on the moderating effect of External Assurance on the relationship between ESG and Firm Performance within the ASEAN-5 countries, incorporating two performance metrics.

Keywords: ESG, External Assurance, Firm Performance, Sustainability.

INTRODUCTION

Firm performance is a key indicator for evaluating a company's ability to manage and allocate its resources effectively. This indicator plays a crucial role in driving corporate performance and maintaining a competitive advantage in the market. Financial performance assessment encompasses various aspects, including revenue, operating expenses, asset and debt structure, and return on investment. Information on corporate performance reflects the company's overall financial condition; therefore, investors and stakeholders generally use it as a basis for strategic decision-making (Naibaho & Mayayogini, 2023).

Financial performance is evaluated in this study using accounting and market-based approaches. The market-based proxy uses Tobin's Q, which measures the market's valuation of a company's future earnings potential. This ratio is considered relevant because it reflects how the market assesses a company's ability to create long-term value (Dkhili, 2024). Meanwhile, ROA was chosen as an accounting-based performance proxy because it is considered the most representative indicator of a company's effectiveness in utilizing its total assets to generate profits over a given period. Return on assets (ROA) is determined by dividing net income by total assets. The combination of market-based and accounting-based techniques provides a more comprehensive assessment of a company's financial performance (Tanggamani et al., 2022).

As global awareness and investor interest in environmental and sustainability issues grow, companies are no longer solely focused on shareholder well-being but also on strengthening stakeholder relationships. Companies are now under pressure to address non-financial aspects such as ESG. Investors, regulators, and other stakeholders recognize that non-financial factors can have a direct impact on a company's reputation, risk profile, and long-term business continuity. Therefore, one of the strategic steps companies are implementing is the integration of ESG practices and performance reporting to maintain market trust and create long-term value (Aydoğmuş et al., 2022).

In evaluating corporate success, this idea aligns with the Triple Bottom Line concept proposed by Elkington (1997). This concept emphasizes the importance of balancing profit, people, and the planet. This concept emphasizes that corporate success depends on generating profits while simultaneously considering its impact on the environment and human well-being. Therefore, companies must implement sustainability-oriented business practices by integrating ESG into their business strategies. This implementation contributes to enhancing reputation and providing long-term value for stakeholders.

By integrating ESG practices, businesses demonstrate their support for the UN 2030 Agenda for Sustainable Development, specifically the Sustainable Development Goals (SDGs). Aimed at eradicating poverty, protecting the environment, and improving the quality of life, the SDGs comprise 17 key objectives and 169 specific targets to be achieved by 2030. Companies must integrate these goals into their business practices by aligning them with the SDGs. This is not only crucial for global progress but also has a direct impact on long-term business sustainability and competitiveness (Gutiérrez-Ponce & Wibowo, 2023).

Adopting ESG principles is a tangible contribution by companies to the implementation of the SDGs. The term "ESG" refers to a set of guidelines for assessing and managing social responsibility, environmental impact, and corporate governance practices. These three pillars are directly linked to various SDG targets. Therefore, ESG implementation not only serves to meet stakeholder expectations but also aligns sustainability principles with business strategies as part of the global development agenda, particularly in achieving the SDGs (Sadiq et al., 2023).

Firm performance is believed to be influenced by the integration of ESG into business practices. The results of several studies examining the relationship between ESG and company performance have been contradictory. According to Le (2024) Southeast Asian companies that implement ESG tend to demonstrate better financial performance, making ESG a key component in investment decision-making. This supports the view that integrating ESG into business practices helps build reputation and generate sustainable value. Therefore, integrating ESG into strategic planning is crucial as a key driver in achieving sustainable development.

Pulino et al. (2022) showed that ESG disclosure, as measured by ESG scores, positively impacts company performance. ESG plays a crucial role in shaping consumer purchasing decisions, as consumers tend to choose companies that implement ESG practices, thereby increasing revenue and directly contributing to higher profitability. Furthermore, ESG disclosure can strengthen investor and stakeholder confidence in a company's sustainable resource management, ultimately driving investment decisions that improve company performance.

Contrary to research showing positive impacts, some studies show that ESG implementation can have a negative effect on company performance. Duque-Grisales & Aguilera-Caracuel (2021) argue that ESG implementation in multinational companies in developing countries often requires substantial financial allocations to strengthen sustainability practices and build organizational capacity. However, these costs may not be reflected in financial performance due to ineffective ESG initiatives or a lack of institutional support. As a result, companies may have to sacrifice cash flow or divert critical resources from core operations, potentially degrading company performance.

Furthermore, according to Firmansyah et al. (2023)The implementation of ESG and the mandatory disclosure of ESG-related information can lead to increased operational costs for companies. Agency theory by Jensen & Meckling (1976) also supports the idea that ESG does not provide financial benefits, as companies waste resources on unproductive activities. In the early stages of ESG adoption, companies often incur substantial capital expenditures as long-term investments, which can reduce short-term profitability. Furthermore, an inadequate understanding of ESG principles and their implementation can lead to ineffective or misguided adoption, ultimately harming company performance.

Kitulazzi et al. (2025) state that sustainability-related investments can reduce company value if executed inefficiently or with poor allocation, resulting in suboptimal results. Therefore, companies should focus on sustainability strategies that improve cost efficiency or mitigate risks. Furthermore, investors should be more selective, as ESG investments do not always result in improved performance or value. This is important because sustainability is a major global agenda and is often viewed as a crucial factor in investment decisions.

In addition to studies showing positive or negative impacts, several studies have concluded that ESG does not affect company performance. According to Johnson et al. (2019), companies in South Africa show no correlation between ESG ratings and business performance. This is mainly due to limited ESG disclosure in certain industries. Similar findings were reported by Junius et al. (2020) in the ASEAN context, which showed that corporate sustainability efforts and ESG implementation had no significant impact on company performance, either positively or negatively.

Furthermore, companies demonstrate accountability for their social and environmental commitments to stakeholders through the practice of sustainability reporting. Over the past few decades, the number of companies preparing and publishing sustainability reports has increased significantly, ensuring ESG transparency and accountability. According to a KPMG survey, the percentage of the world’s 250 largest companies publishing sustainability reports increased from 35% in 1999 to 96% in 2022. A similar trend is observed among the N100 companies, with reporting rates rising from 12% in 1993 to 79% in 2022 (KPMG, 2022).

The global adoption of sustainability reporting demonstrates that it has become a crucial component of modern business practices. Companies publish sustainability reports to meet information demands, build trust, and support investment decision-making. Therefore, the quality of sustainability reporting is crucial, as it reflects corporate accountability and transparency. In this context, corporate integrity and external assurance play a key role in enhancing the credibility and reliability of sustainability report disclosures (Elaigwu et al., 2024).

The term “external assurance” describes a process in which auditors, consultants, or other third parties independently verify the accuracy and reliability of the data presented in a sustainability report. This aims to increase transparency, reduce information asymmetry, and build stakeholder confidence in the quality of the disclosed report. With external assurance, disclosed sustainability information is expected not only to comply with applicable reporting standards but also to be more accountable due to an independent third-party evaluation (Miralles-Quirós et al., 2021).

In business practice, external assurance is believed to impact company performance. According to Astuti et al. (2023), external assurance reflects a company's commitment to the credibility and quality of its reporting. Assurance by an independent party enhances the credibility of sustainability reports, particularly for investors when making investment decisions. This enhances transparency and perceptions of company accountability, positively influencing the evaluation of company performance and reputation. Furthermore, it helps investors interpret sustainability information more objectively and avoid misinterpretation of company performance.

Conversely, Oware & Mallikarjunappa (2019) found that external assurance had a negative impact on corporate performance among public companies in India. This was due to stakeholders' limited understanding of the importance of external assurance in sustainability reporting. Furthermore, company management viewed external assurance as an additional operational burden. The costs incurred made minimal direct contributions to profitability and were therefore considered economically disadvantageous.

A similar conclusion was drawn by Shafira & Hersugondo (2023). Their study of public companies in Indonesia found that external assurance had a negative impact on corporate performance. This finding reinforces the assumption that stakeholders do not fully understand external assurance as a strategic tool, so its benefits are not directly reflected in financial results. Furthermore, companies that use external assurance services incur additional costs, which are not always offset by increased profits and are therefore viewed as inefficient expenditures.

A study by Naibaho & Shahab (2025) Fortune 500 companies in the industrial, materials, and energy sectors revealed different results. They found no significant effect of external assurance on corporate performance in sustainability reporting. This may be due to differences in the quality and scope of assurance services, stakeholder trust in assurance providers, or specific conditions in a company's operating environment. Furthermore, investor and stakeholder perceptions of the value of external assurance vary, resulting in inconsistent impacts on market performance.

Several studies have shown that external assurance plays a moderating role. There is a complementary influence between sustainability reporting and external assurance in determining firm value, as demonstrated by Thompson et al. (2022). External assurance moderates the relationship between sustainability reporting and firm value. Whether sustainability reporting is supported by external certification does influence its impact.

Furthermore, the relationship between mandatory CSR reporting and business performance, as well as the effect of charitable giving on firm performance, is both mitigated by external assurance, according to research by Oware et al. (2022). Corporate management can use this information to refine their sustainability reporting practices, demonstrating how external assurance influences the impact of CSR on business performance.

The inconsistency in previous research findings indicates a gap that warrants further investigation. Furthermore, no prior research has comprehensively examined the simultaneous influence of ESG and external assurance on corporate performance, with external assurance acting as a moderating variable. Therefore, this study presents a novel research framework that simultaneously analyzes these variables and their impact on corporate performance.

Despite the abundance of research on this topic, no study has examined how external assurance moderates the relationship between ESG and corporate success. This study contributes to the existing literature by examining the relationship between ESG and business performance, with external assurance acting as both an independent and a moderating variable.

The sample selection included public companies from the non-financial sector in ASEAN-5 countries. Previous research has yielded inconsistent results regarding the influence of each ESG factor and external assurance on corporate performance. However, few studies have examined samples from developing regions, such as Southeast Asia, where companies prioritize profit over social responsibility. In light of this, the current study aims to address this knowledge gap by investigating ESG outcomes and external assurance in five ASEAN member countries (Lerskullawat & Ungphakorn, 2024).

The ASEAN-5 plays a crucial role in advancing global economic growth. Over the past two decades, the ASEAN-5 has achieved significant progress in trade integration. In 2021, the ASEAN-5 accounted for 90% of the region's total trade-to-GDP ratio. This indicates that the ASEAN-5 region is a promising market, offering attractive investment opportunities for global investors. Therefore,

analyzing sustainability aspects, such as ESG and external assurance, is becoming increasingly relevant in assessing a company's non-financial performance (Baek et al., 2023). This study utilizes data from the last five years, spanning the period 2019–2023, to provide a deeper and more comprehensive understanding of the current trends and dynamics related to the impact of ESG and external assurance on company performance, with external assurance serving as a moderator. Considering the above, this study aims to (1) provide evidence of the impact of ESG and external assurance on company performance and (2) demonstrate the moderating role of external assurance in the ESG-company performance relationship. Therefore, the research questions guiding this study are: Do ESG and External Assurance affect firm performance as measured by Tobin's Q and ROA? Does External Assurance moderate the relationship between ESG and Firm Performance as measured by Tobin's Q and ROA?

The findings of this study are expected to benefit future researchers, practitioners, and academics, enriching their work. This study is expected to serve as a reference for future researchers aiming to broaden their understanding of the impact of ESG factors and external assurance on business performance, with external assurance acting as a moderating variable. Furthermore, the results of this study can serve as a basis for additional research investigating the relationship between these factors in various fields or settings. For practitioners and academics, this study is expected to enhance their understanding and insight into the role of ESG and external assurance as strategic factors influencing corporate financial performance. This information can inform policy formulation and support effective and efficient decision-making. Furthermore, this study is expected to contribute to the existing academic literature by enhancing understanding and information regarding the relationship between ESG, external assurance, and corporate performance. This knowledge can be applied in teaching and future research contexts.

This study is divided into several components, organized in a methodical manner. It begins with an introduction that explains the accounting phenomena and issues underlying the analysis. This section also presents the research topic, objectives, and expected contributions. The following literature review provides further details on the conceptual foundations and key theoretical underpinnings of key variables, including agency theory, firm performance, Environmental, Social, and Governance (ESG) considerations, and external assurance. A section on hypothesis development, which validates the proposed theories, follows. The methodological strategy employed in this study is then explained in the research methods section. The empirical results are then presented, along with a comprehensive analysis and interpretation, in the Results and Discussion section. A conclusion section, highlighting key conclusions, consequences, and potential avenues for further research, concludes this study.

LITERATURE REVIEW

Agency Theory

Agency theory states that every organization primarily involves two parties: a principal and an agent. With this delegation of authority, the principal gives the agent responsibility for making decisions and overseeing resource allocation. In turn, the agent's role is to obey the principal's directives and fulfill the principal's duties. Agency problems arise when the principal's goals conflict with the agent's interests, causing the agent to act in a manner detrimental to their employer's goals. Agency expenses, including monitoring costs, bonding costs, and residual losses, are directly related to this agency challenge. Because agents often prioritize their interests over those of the principal, the costs incurred to oversee their behavior are referred to as monitoring costs. Bonding costs represent the time and effort the agent spends building credibility with the principal. The purpose of these expenses is to reduce the need for close supervision by aligning the agent's interests with those of the principal. Residual losses represent the ongoing losses that arise when the agent continues to act contrary to the principal's interests, despite monitoring and bonding measures (Jensen & Meckling, 1976).

Agency theory highlights the potential conflict of interest between management and shareholders over the allocation of sustainability-related expenditures in sustainability practices, facilitated by the implementation of ESG initiatives and external assurance. Shareholders may perceive

that these expenditures are potentially reducing their profits, while management may prioritize non-financial objectives, such as enhancing the company's reputation or attracting investors. This conflict of interest can lead to agency costs, which include monitoring costs associated with management's sustainability initiatives and residual losses manifested as decreased business performance (Truong, 2024).

The introduction of agency costs emphasizes the need to manage agency difficulties, particularly when agents, as decision-makers, do not bear the direct risks or consequences of their decisions. This imbalance can result in decisions that are detrimental to the principal. Therefore, robust oversight procedures are necessary, including a clear separation between decision-making and implementation, as well as monitoring and approval. This separation aims to reduce the possibility of agents abusing their positions and minimize the resulting agency costs (Fama & Jensen, 1983).

Firm Performance

Firm performance is characterized by the aggregation of a series of ongoing managerial decisions, including investment, operational, and financial choices. The primary goal of business performance is to enhance operational efficiency, enabling the company to compete effectively with its competitors and build credibility with investors and stakeholders. Financial performance assessment is crucial because it allows the company and its stakeholders to gauge the organization's effectiveness in achieving its objectives over a specific period (Beaver, 1966).

Firm performance reflects the company's ability to allocate and manage resources effectively, thereby improving performance and maintaining competitiveness. Financial performance evaluation encompasses various financial dimensions, including revenue, operating expenses, assets, debt composition, and return on investment. Corporate performance reflects a company's achievements over a specific period and is commonly used by stakeholders as a basis for strategic decision-making (Naibaho & Mayayogini, 2023).

Several approaches exist to determine corporate performance. This analysis uses accounting and market proxies. Tobin's Q, a market-based approach, reflects investors' views of a company's future profit potential. Market-based methods often use this ratio, which is calculated by dividing the total book value of all assets by the sum of equity and liabilities (Dkhili, 2024). This study uses the Return on Assets (ROA) profitability ratio to assess accounting-based business success. The rationale for its selection lies in its designation as the gold standard for determining a company's ability to convert its current and non-current assets into profits. This ratio is determined by dividing net income by the book value of total assets (Tanggamani et al., 2022).

Environmental, Social, and Governance (ESG)

Global attention is increasingly focused on ESG issues. A comprehensive understanding of sustainable development has emerged as a key theme in international discussions, driven by this growing concern. Since their official introduction in 2004, ESG principles have evolved over the past 19 years. Various countries continue to promote integrated growth in the ESG domain (Li et al., 2021). ESG is a framework used in environmental, social, and governance to analyze and measure company performance across these three aspects simultaneously (Ismillah & Faisal, 2023).

ESG is a set of criteria intended to regulate and analyze an organization's environmental, social, and business performance (Purnomo et al., 2024). ESG demonstrates a company's commitment to social responsibility, environmental sustainability, and good corporate governance. Beyond serving as an analytical or monitoring tool, ESG illustrates how well a company's policies incorporate sustainability principles. Therefore, ESG has become a key indicator for assessing a company's commitment to sustainable and responsible business practices (Sadiq et al., 2023). ESG encompasses three main pillars, namely environmental, social, and governance, which were first introduced in 2004 through proactive actions by the United Nations and 20 leading financial institutions (Ma'ruf & Adi, 2025).

The environmental component evaluates a company's effectiveness in preserving and protecting the environment, including emissions reduction, climate change mitigation, waste management, biodiversity conservation, and water conservation. The social component assesses a company's engagement with the community and its various stakeholders regarding ethical business practices, including labor standards, human rights, gender diversity, and community relations.

Governance ensures corporate oversight and leadership direction, encompassing board diversity, executive compensation, audit mechanisms, shareholder rights protection, and intellectual property rights protection (PwC, 2025).

ESG scores are measured using the Thomson Reuters Eikon™ database. This assessment is based on ten themes within three key ESG pillars, with over 600 evaluation criteria. These ten topics are divided into three pillars: environmental, social, and governance. Scores range from 0 to 100, with higher numbers indicating excellent ESG performance and transparency in ESG reporting, while lower scores indicate poor ESG performance and inadequate transparency in disclosing ESG information to the public (Aydoğmuş et al., 2022).

External Assurance

The purpose of sustainability reporting is to serve as a communication tool that helps convey a company's sustainability performance and link business operations to the Sustainable Development Goals (Dwiyandi, 2025). Companies that adhere to these criteria tend to be more transparent in their disclosures. With the adoption of legislation such as the European Sustainability Reporting Standards (ESRS) and the Corporate Sustainability Reporting Directive (CSRD), which require companies to report on their sustainability initiatives, this topic has become increasingly important. The purpose of these standards is to help companies improve transparency, compliance, and strategic integration of sustainability, with the ultimate goal of contributing to the overall achievement of the Sustainable Development Goals (SDGs) (Beretta et al., 2024).

This technique has become an integral part of the corporate agenda, as evidenced by the increasing number of organizations worldwide that implement sustainability reporting. Informing stakeholders about a company's performance on environmental, social, and governance (ESG) factors is referred to as sustainability reporting. Its primary objectives are to ensure that information needs are met, foster trust, and facilitate investment decision-making. Therefore, the quality of sustainability reporting is crucial because it demonstrates the accountability and transparency of the organization it represents. Within this framework, the implementation of integrity and corporate assurance activities significantly contributes to improving the reliability and quality of information provided through sustainability reports (Elaigwu et al., 2024).

The term "external assurance" refers to independent verification procedures conducted by auditors, consultants, or other third parties to assess the reliability and integrity of the information contained in an organization's sustainability report. This is done to increase transparency, reduce information asymmetry, and build stakeholder trust in the authenticity and quality of the information contained in published reports. With third-party assurance, the sustainability information provided is not only required to comply with mandatory reporting criteria but also carries a higher level of accountability due to having undergone an independent third-party evaluation procedure (Miralles-Quirós et al., 2021).

Hypothesis Development

The Influence of ESG on Firm Performance

Rising global awareness and investor interest in sustainability issues are driving companies to pay greater attention to non-financial aspects such as ESG (Nugroho et al., 2024). Investors, regulators, and other stakeholders are now recognizing that non-financial variables have a significant impact on a company's reputation, risk, and sustainable business prospects. Consequently, successfully integrating ESG practices and reporting is a strategic step to maintain market confidence and generate sustainable value. From a company's perspective, ESG implementation requires significant investment and resources, prompting discussions among management regarding the financial benefits relative to the associated costs (Aydoğmuş et al., 2022).

According to Jensen & Meckling (1976), agency theory suggests that implementing environmental, social, and governance (ESG) policies can create a conflict of interest between management and shareholders regarding the allocation of sustainability-related costs. Shareholders prioritize cost efficiency and profitability, while management tends to pursue non-financial goals, such as enhancing the business's reputation or attracting investors. This conflict generates agency costs,

including expenses related to management oversight of sustainability initiatives, as well as residual loss costs reflected in decreased business performance.

Several studies have presented conflicting findings regarding the relationship between ESG and corporate performance. While some studies demonstrate a positive influence, a significant number have shown a negative effect of ESG on corporate financial performance. According to Duque-Grisales & Aguilera-Caracuel (2021), improving sustainability practices and enhancing organizational capabilities requires significant financial resources. These costs are often not reflected in financial performance, either due to inadequate ESG measures or a lack of institutional support. As a result, organizations may have to sacrifice cash flow and divert resources from core operations, resulting in lower corporate performance.

Firmansyah et al. (2023) argue that the use and reporting of ESG data incur additional operational costs, especially in the early stages of ESG implementation. These costs are related to commitment and regulatory compliance, which can negatively impact a company's short-term financial performance. Furthermore, a lack of awareness of ESG ideas and practices is problematic. This can result in poorly focused or ineffective ESG implementation, ultimately weakening business performance.

Furthermore, Kitulazzi et al. (2025) concluded that investments in sustainability initiatives can reduce Tobin's Q if executed inefficiently or if financial resources are misallocated, resulting in poor results. Consequently, companies should prioritize sustainability solutions that improve cost efficiency or mitigate risks. Similarly, investors should be more discerning, as ESG investments do not inherently improve business performance or value. This is particularly important because sustainability is now a global goal and is often considered a crucial element in influencing investment decisions. Based on the discussion, it can be concluded that improving ESG ratings without proper implementation can have a negative impact on a company's financial success. Therefore, the theory proposed in this study is as follows:

H_{1a}: ESG has a negative effect on Firm Performance as measured by Tobin's Q.
H_{1b}: ESG has a negative effect on Firm Performance as measured by ROA

The Influence of External Assurance on Firm Performance

Sustainability reporting is increasingly becoming an integral part of global corporate strategy. Sustainability reporting serves to communicate ESG performance to stakeholders, meet information requirements, foster trust, and facilitate investment decisions. Therefore, the quality of such reporting is crucial, as it reflects corporate responsibility and transparency. In this context, corporate integrity and external assurance significantly enhance the quality of information in sustainability reports (Elaigwu et al., 2024).

External assurance is an independent verification procedure conducted by auditors, consultants, or other third parties to assess the reliability and authenticity of sustainability reports. The goal is to increase transparency, eliminate information asymmetry, and enhance stakeholder confidence in the accuracy of the information released. External assurance ensures that sustainability information is not only verified by mandatory reporting regulations but also has a higher level of accountability due to having undergone an independent third-party evaluation procedure (Miralles-Quirós et al., 2021).

Several studies have examined the effect of external assurance on corporate performance, but the findings are mixed. Some studies report positive impacts, while others report negative ones. According to Oware & Mallikarjunappa (2019) external assurance in sustainability reporting can reduce company performance. This is due to stakeholders' limited understanding of the relevance of assurance and the misconception that using external assurance services actually increases operational costs. These costs are perceived as indirectly contributing to profitability, resulting in low economic benefits for the company.

Research by Shafira & Hersugondo (2023) It was also found that external verification in sustainability reporting has a negative impact on company performance. This underscores the notion that stakeholders do not fully understand external assurance as a strategic tool, resulting in its benefits not being fully realized in the company's financial results. The use of external assurance services incurs additional costs, which in practice do not directly impact profit growth. Consequently, these expenditures are perceived as inefficient, negatively impacting the company's financial performance.

Agency theory supports this perspective, as divergent goals between management and shareholders can result in agency costs. In this context, the use of external assurance can increase operational costs, which are not necessarily perceived as directly contributing to company profitability. Shareholders may perceive these costs as inefficient, which can negatively impact company performance. This argument suggests that the application of external assurance in sustainability reporting can undermine business performance unless combined with a clear strategy and effective execution. The hypotheses proposed in this study are as follows:

H_{2a}: External assurance has a negative effect on Firm Performance as measured by Tobin's Q.
H_{2b}: External assurance has a negative effect on Firm Performance as measured by ROA.

The Effect of External Assurance in Moderating the ESG Relationship to Firm Performance

Corporate solutions to social and environmental issues include formulating strategies that advance sustainability principles, including ESG efforts. Companies publish sustainability reports to communicate their ESG performance, meet societal expectations, alleviate market concerns about transparency, and demonstrate their commitment to ESG principles and the public interest. These sustainability reports are an essential tool for enhancing corporate engagement with stakeholders (Kao et al., 2024).

However, the effectiveness of ESG reporting in improving financial performance remains a matter of debate. Some argue that ESG disclosure can enhance reputation, build stakeholder trust, and create long-term value, which in turn improves corporate performance (Le, 2024). Conversely, others argue that ESG implementation and disclosure can impose additional costs and reduce operational efficiency, negatively impacting corporate performance (Firmansyah et al., 2023). This is particularly true when sustainability disclosures lack credibility and transparency.

In this context, external assurance, as an independent entity that verifies sustainability reports, is crucial in enhancing the credibility and trustworthiness of the information provided. According to GRI (2014) the purpose of external assurance is to enhance the robustness, accuracy, and stakeholder confidence in the sustainability information provided by an organization. Therefore, the use of external assurance can improve reporting quality and credibility, minimizing knowledge asymmetries between management and users of sustainability reports (Thompson et al., 2022).

However, Jensen & Meckling (1976) agency theory states that ESG implementation and external assurance can incur agency costs. This problem stems from conflicting interests between management and shareholders, resulting in conflict that generates agency costs. The implementation of ESG practices and external certification typically requires substantial initial investment, placing a financial burden on the business in the short term. This creates agency costs, including monitoring costs and residual losses.

In the previous discussion, the use of external assurance as an independent variable with a direct impact on company performance was examined. However, from a more holistic perspective, it is possible that external assurance can moderate the relationship between environmental, social, and governance factors and company performance. The inclusion of external assurance in sustainability reporting can either enhance or diminish the influence of environmental, social, and governance factors on company performance.

Several studies demonstrate this moderating function. Thompson et al. (2022) argue that the use of external assurance has the potential to reduce the correlation between sustainability reporting and a company's environmental business value. Consequently, this suggests that the impacts of sustainability reporting and external assurance on firm value are complementary. In other words, the presence of external assurance in corporate reports has the potential to impact, at least to some extent, the value derived from sustainability reporting.

Similarly, Oware et al. (2022) found that external assurance influences the relationship between charitable contributions and business performance, as well as mandated CSR reporting and firm performance. The results suggest that external assurance can be strategically implemented to enhance the value of sustainability disclosure. The use of external assurance in sustainability reporting mitigates the influence of ESG on firm performance. The theories presented in this study are as follows:

H_{3a}: External assurance moderates the relationship between ESG and Firm Performance as measured by Tobin's Q
H_{3b}: External assurance moderates the relationship between ESG and Firm Performance as measured by ROA.

This study aims to examine the impact of ESG and external assurance on business performance, with external assurance as a moderating variable. Firm performance, the dependent variable, is assessed based on two indicators: Tobin's Q and Return on Assets (ROA). Figure 1 illustrates the research framework, which consists of three categories of variables and illustrates the relationships between them as used in this study.

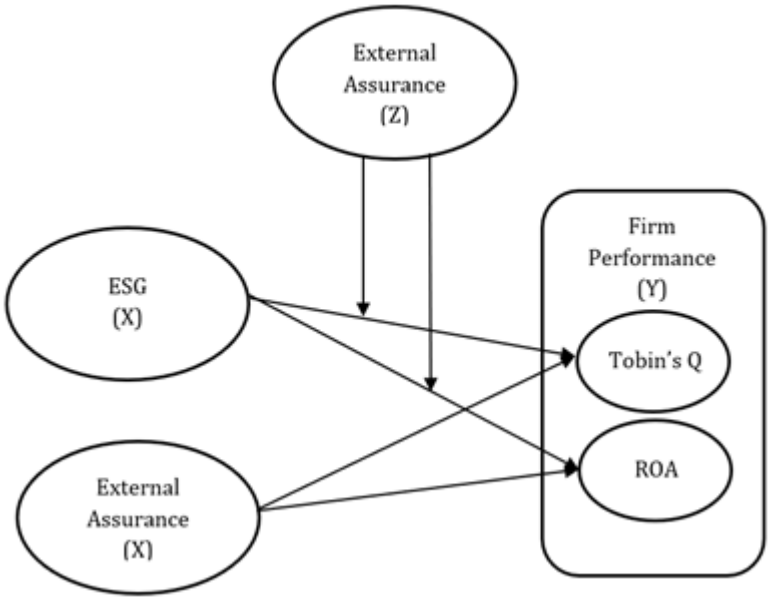

Figure 1. Research Framework
Source: Author's Idea (2025)

RESEARCH METHOD

To maintain a relevant focus and scope consistent with its stated objectives and contributions, this study is limited to the following dimensions: research object, timeframe, and methodology. This study employs a quantitative research methodology, utilizing panel data regression methods, to investigate the relationship between ESG variables, external assurance, and corporate performance over time and across entities. Quantitative methods allow for objective measurement and statistical testing of hypotheses, thereby enhancing the generalizability and validity of the results. Four model configurations were developed to evaluate the proposed hypotheses. Hypotheses 1a and 2a are tested through the first model, Hypotheses 1b and 2b are tested through the second model, Hypothesis 3a is tested through the third model, and Hypothesis 3b is tested through the fourth model. The empirical model set is formulated as follows:

Research Model 1:

$$TOBIN_{i,t} = \alpha_0 + \beta_1 ESG + \beta_2 EXTASSUR_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 DAR_{i,t} + \beta_5 GDP_{i,t} + \beta_6 INFL_{i,t} + \beta_7 COV_{i,t} + \varepsilon$$

Research Model 2:

$$ROA_{i,t} = \alpha_0 + \beta_1 ESG + \beta_2 EXTASSUR_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 DAR_{i,t} + \beta_5 GDP_{i,t} + \beta_6 INFL_{i,t} + \beta_7 COV_{i,t} + \varepsilon$$

Research Model 3:

$$TOBIN_{i,t} = \alpha_0 + \beta_1 ESG + \beta_2 ESG^{*} EXTASSUR_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 DAR_{i,t} + \beta_5 GDP_{i,t} + \beta_6 INFL_{i,t} + \beta_7 COV_{i,t} + \varepsilon$$

Research Model 4:

$$ROA_{i,t} = \alpha_0 + \beta_1 ESG + \beta_2 ESG^{*} EXTASSUR_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 DAR_{i,t} + \beta_5 GDP_{i,t} + \beta_6 INFL_{i,t} + \beta_7 COV_{i,t} + \varepsilon$$

Description:

α	= Constant
β 1,2,..,7	= Variable coefficient
TOBIN	= Tobin's Q
ROA	= Return on Assets (ROA)
ESG	= Environmental, Social, and Governance (ESG)
ESG*EXTASSUR	= External Assurance (Moderator)
SIZE	= Firm size
DAR	= Debt-to-Asset Ratio (DAR)
GDP	= Gross Domestic Product
INFL	= Inflation
COV	= COVID-19

Based on the empirical model developed, this study predicts the direction of the coefficient parameters of each variable (β) involved, with the following details: Hypothesis 1a states that Environmental, Social and Governance (ESG) affects Company Performance represented by the proxy Tobin's Q. Therefore, it is predicted that the coefficient $\beta 1<0$ is statistically significant in Model 1. Hypothesis 1b states that Environmental, Social, and Governance (ESG) affects Company Performance, represented by the proxy ROA. Therefore, it is predicted that the coefficient $\beta 1<0$ is statistically significant in Model 2. Hypothesis 2a states that External Assurance affects Company Performance, represented by the proxy Tobin's Q. Therefore, this study predicts that the coefficient $\beta 2<0$ is statistically significant in Model 1. Hypothesis 2b states that External Assurance affects Company Performance, represented by the proxy ROA. Therefore, this study predicts that the coefficient $\beta 2<0$ is statistically significant in Model 2. Hypothesis 3a states that External Assurance can moderate Environmental, Social, and Governance (ESG) with Firm Performance represented by Tobin's Q proxy. Therefore, the predicted coefficient β2 is statistically significant in Model 3. Hypothesis 3b states that External Assurance can moderate Environmental, Social, and Governance (ESG) with Firm Performance proxied by ROA. Therefore, this study predicts that the coefficient β2 is statistically significant in Model 4.

The population of this study includes all non-financial companies listed on the stock exchanges of ASEAN-5 member countries between 2019 and 2023. The financial sector is excluded due to its unique regulatory framework and specific financial reporting requirements. The sample was selected using a non-probability purposive sampling method based on the following criteria: (1) non-financial companies listed in the S&P Capital IQ database between 2019 and 2023, (2) companies with ESG scores from Thomson Reuters Eikon™, and (3) companies that published a complete sustainability report during the study period. Table 3 presents the results of the study sample selection in relation to several specific criteria.

Based on the sample selection results shown in Table 1, 200 public companies listed on the stock exchanges of each ASEAN-5 Member country obtained ESG scores from the Thomson Reuters Eikon database for the 2019-2023 period. All these companies are also listed in the S&P Capital IQ database. Of these companies, 33 were excluded because they are in the financial sector, 41 companies did not have complete sustainability reports for the 2019-2023 period, and six companies lacked

complete data to calculate the variables. Thus, the final sample in this study consisted of 120 companies over a five-year period, resulting in a total sample of 600.

This study used traditional assumption tests as part of the regression diagnostics to ensure the robustness of the analysis and the validity of the results. Other statistical difficulties encountered during the testing included normality, heteroscedasticity, and autocorrelation. Although these issues typically arise in extensive panel data studies, no specific data adjustments were made to address them. This study employs the Driscoll-Kraay standard error regression approach to mitigate potential estimation bias, as this approach is well-suited for panel data with cross-sectional dependence and heteroscedasticity. This strategy enhances the reliability of statistical conclusions and complements the study's rigorous analytical framework and sampling design.

Table 1. Data Sample Selection Results

Sample Selection Criteria	Total Company	Total Year
Public companies in ASEAN 5 that obtained ESG scores from the Thomson Reuters Eikon™ database and are presented in the S&P Capital IQ database for the period 2019-2023	200	1000
Deducted Companies in the financial sector	(33)	(165)
The company published incomplete sustainability reports in the research period, namely from 2019 to 2023	(41)	(205)
Incomplete data to calculate variables	(6)	(30)
Total	120	600

Source: Data processed by the author (2025)

To measure firm performance through the market approach, this study utilizes Tobin's Q, as this approach reflects investors' assessment of the company's potential to generate future profits. This ratio is commonly used in the market-based approach, which is calculated by dividing the sum of the market value of equity and total liabilities by total assets. The market value of equity is obtained by multiplying the number of shares outstanding by the closing price (Dkhili, 2024).

This study chose ROA as an accounting-based approach to measuring company performance. ROA was selected because it is considered the most representative indicator of a company's effectiveness in managing total assets to achieve profit over a given period. This ratio is calculated by comparing total net income to total assets (Tanggamani et al., 2022).

ESG is a strategic approach adopted by companies to enhance their commitment to sustainable practices. ESG implementation aims to meet the expectations of investors and stakeholders regarding the integration of sustainability principles and the disclosure of non-financial information. In addition to financial aspects, investors concerned with social responsibility also consider non-financial factors, such as ESG implementation, before making sustainable investment decisions (Veeravel et al., 2024). In this study, ESG was measured using the ESG Score from the Thomson Reuters Eikon™ database for the period 2019–2023. The assessment is based on a combination of three key ESG pillars with a score range of 0 to 100. A high score reflects superior ESG performance and good transparency in ESG reporting. Conversely, a low score indicates weak ESG performance and a lack of transparency in ESG reporting to the public (Aydoğmuş et al., 2022).

External assurance is an independent verification process conducted by auditors, consultants, or external experts to assess the reliability and credibility of information in a company's sustainability report. This process aims to increase transparency, reduce information asymmetry, and build stakeholder confidence in the quality of the reports presented (Miralles-Quirós et al., 2021).. External assurance in this study is used as an independent variable as well as a moderating variable, which is measured using a dummy variable with the following conditions: 1 if the company conducts external assurance on its sustainability report, and zero if not (Thompson et al., 2022).

RESULTS AND DISCUSSION

Results

Descriptive Statistic Analysis

Based on Table 2, the results of the descriptive statistical analysis indicate 600 observations, comprising 120 companies, over a five-year period (2019–2023). This analysis is the initial step in understanding the basic characteristics of the data used.

Table 2. Descriptive Statistics Analysis

Variable	Obs	Mean	Std. dev.	Min	Max
TOBIN	600	1.717	1.842	0.437	16.418
ROA	600	0.050	0.080	-0.563	0.793
ESG	600	56.684	17.289	6.659	91.834
EXTASSUR	600	0.412	0.493	0	1
ESGEXTASSUR	600	27.947	34.411	0	91.834
SIZE	600	8.522	1.083	5.526	11.032
DAR	600	0.510	0.197	0.022	1.229
GDP	600	0.039	0.079	-0.080	0.242
INFL	600	2.367	2.048	-1.139	6.121
COV	600	0.4	0.490	0	1

Source: Data processed – STATA 17 (2025)

Table 2 shows that the Tobin's Q (TOBIN) variable, which serves as a market-based proxy for firm performance, has a mean value of 1.717 and a standard deviation of 1.842. A standard deviation above the mean indicates that the distribution of Tobin's Q is extensive or highly heterogeneous. This shows substantial disparities in market perceptions of firm performance across the sample. PT Unilever Indonesia Tbk achieved the highest Tobin's Q value of 16.418 in 2019, while Wing Tai Holdings Ltd (Singapore) recorded the lowest Tobin's Q value of 0.437 in 2023.

The ROA variable measures Return on Assets (ROA), an accounting-based metric that indicates a firm's financial success. Analysis shows a mean ROA of 0.050, with a standard deviation of 0.080. This indicates significant disparities in firm performance. This suggests substantial inequality in the efficiency of asset management across businesses in generating profits. Sapura Energy Bhd (Malaysia) achieved the lowest ROA of -0.563 in 2022, while Top Glove Corporation Bhd (Malaysia) achieved the highest ROA of 0.793 in 2021.

The ESG variable assesses a company's environmental, social, and governance (ESG) assets. Analysis shows an average ESG score of 56.684, with a standard deviation of 17.289. This indicates a spread in the data, but it is still within the normal range. Berjaya Corporation Bhd (Malaysia) had the lowest ESG score in 2019, with a score of 6.659. Delta Electronics Thailand PCL achieved the highest ESG score in 2022, with a score of 91.834. A high ESG score indicates superior ESG performance and transparency, while a low ESG score indicates poor ESG performance and inadequate public disclosure.

The EXTASSUR variable serves as an independent variable, indicating the presence of External Assurance in sustainability reports, and is quantified through a dummy variable. The study shows that the EXTASSUR variable has a mean of 0.412 and a standard deviation of 0.493. Approximately 41.2% of the sample organizations use external assurance. On the other hand, the standard deviation, which is close to the maximum value of the dummy scale, indicates significant variability in the data distribution.

The moderating variable ESGEXTASSUR is the result of the interaction between ESG and External Assurance as moderators. Descriptive statistics reveal that this variable has a mean of 27.947 and a standard deviation of 34.411, indicating a diverse range of ESG scores among companies with relatively high levels of external assurance. Furthermore, the minimum value of this variable is zero, and the maximum value is 91.834.

The control variable SIZE is used to measure company size. Based on the analysis, the mean value of SIZE is 8.522, with a standard deviation of 1.083. This suggests that the distribution of company size data in the sample is relatively low and does not vary significantly. The lowest company size value was recorded at British American Tobacco Bhd (Malaysia) in 2019 with a logarithmic asset

value of 5.526, while the highest company size value was recorded at Wilmar International Ltd (Singapore) in 2023 with a value of 11.032.

The control variable DAR is used to measure company capital structure. The analysis revealed a mean DAR of 0.510 and a standard deviation of 0.197. This indicates a fairly diverse data distribution, but still within the normal or non-extreme range. The lowest DAR value, at 0.022, was held by Haw Par Corporation Ltd (Singapore) in 2020, while the highest DAR value, at 1.229, was held by Sapura Energy Bhd (Malaysia) in 2023.

The GDP control variable is used to measure a country's economic growth rate, calculated based on the GDP growth rate of each ASEAN-5 country during the study period. The analysis revealed a mean GDP growth rate of 0.039, with a standard deviation of 0.079. This suggests that economic growth rates vary significantly across countries and within years of the sample. The lowest GDP value, at -0.080, was recorded by Thailand in 2020, and the highest GDP value, at 0.242, was recorded by Singapore in 2021.

The INFL control variable is used to measure the annual inflation rate at the ASEAN 5 country level. The analysis shows an average inflation value of 2.367 and a standard deviation of 2.048, indicating significant variation across countries and years within the study period. The lowest recorded inflation value, at -1.139, occurred in Malaysia in 2020, while the highest inflation value, at 6.121, was recorded in Singapore in 2022.

The COVID-19 control variable is used to identify differences in economic conditions between the crisis period due to the COVID-19 pandemic and normal periods. This variable is measured using a dummy variable. The analysis shows that the COVID-19 variable has an average value of 0.4, indicating that approximately 40% of the observations in the sample come from the pandemic-affected period, while the remainder come from the normal period. The standard deviation value of 0.490 indicates high variability in the distribution of data between crisis and non-crisis years in the sample.

Correlation Analysis

Table 3 shows the results of data processing for correlation analysis using Paired Correlation with significance levels of 1%, 5%, and 10%. Based on Table 3, the correlation test results show a correlation coefficient of 0.5425 between the independent variables, ESG and External Assurance. This value indicates a positive and significant linear relationship at the 1% significance level, but remains below the multicollinearity threshold (0.8), thus not raising concerns about multicollinearity.

Furthermore, the ESG variable exhibits a significant and positive correlation with company performance, as represented by the proxies Tobin's Q and ROA, with correlation coefficients of 0.2120 and 0.1675, respectively. These values indicate a positive and statistically significant linear relationship at the 1% significance level, suggesting that improvements in company performance tend to be accompanied by corresponding improvements in ESG scores.

Furthermore, External Assurance also exhibits a significant and positive correlation with company performance, as represented by the proxies Tobin's Q and ROA, with correlation coefficients of 0.1063 and 0.1108, respectively. These correlations are positive and significant at the 1% significance level. This means that companies that use external assurance services for their sustainability reports tend to have better corporate performance.

Regarding the control variables, ESG exhibits a positive and significant correlation with SIZE and DAR, at 0.1031 and 0.1013, respectively, at the 5% significance level. However, its correlations with GDP, Inflation, and COVID-19 are relatively weak and insignificant, at -0.0367, 0.0551, and -0.0461, respectively.

The relationship between External Assurance and SIZE and DAR is found to be significant and positive, at 0.1979 and 0.1846, respectively, at the 1% significance level. At the same time, the correlations with GDP, Inflation, and COVID-19 are not statistically significant, at -0.0314, 0.0336, and -0.0401. Meanwhile, the correlation value between ESG and the moderating variable, External Assurance, was 0.6382, indicating a positive and significant correlation at the 1% significance level. The correlation values between the moderating variable, External Assurance, and Tobin's Q and ROA were 0.1552 and 0.1231, indicating a positive and significant correlation at the 1% significance level.

Table 3. Correlation Analysis – Pairwise Correlation

Variable	(1)	(2)	(3)	(4)	(5)
(1) TOBIN	1.0000				
(2) ROA	0.4806***	1.0000			
	0.0000				
(3) ESG	0.2120***	0.1675***	1.0000		
	0.0000	0.0000			
(4) EXTASSUR	0.1063***	0.1108***	0.5425***	1.0000	
	0.0092	0.0066	0.0000		
(5) ESGEXTASSUR	0.1552***	0.1231***	0.6382***	0.9717***	1.0000
	0.0001	0.0025	0.0000	0.0000	
(6) SIZE	-0.3570***	-0.3182***	0.1031**	0.1979***	0.1659***
	0.0000	0.0000	0.0115	0.0000	0.0000
(7) DAR	0.0470	-0.2144***	0.1013**	0.1846***	0.1788***
	0.2501	0.0000	0.0131	0.0000	0.0000
(8) GDP	-0.0872**	0.0770*	-0.0367	-0.0314	-0.0396
	0.0327	0.0596	0.3694	0.4424	0.3324
(9) INFL	-0.1060***	0.0375	0.0551	0.0336	0.0502
	0.0094	0.3598	0.1779	0.4110	0.2195
(10) COV	0.0406	-0.0437	-0.0461	-0.0401	-0.0498
	0.3209	0.2849	0.2594	0.3269	0.2229

Variable	(6)	(7)	(8)	(9)	(10)
(6) SIZE	1.0000				
(7) DAR	0.2528***	1.0000			
	0.0000				
(8) GDP	-0.0184	-0.0591	1.0000		
	0.6527	0.1485			
(9) INFL	0.0573	0.0062	0.4485***	1.0000	
	0.1609	0.8790	0.0000		
(10) COV	-0.0094	0.0168	-0.1305***	-0.4888***	1.0000
	0.8185	0.6815	0.0014	0.0000	

***, **, * Significance level of 1%, 5%, and 10%

Source: Data processed – STATA 17 (2025)

Overall, there was no indication of multicollinearity, as all correlation coefficients between the main independent variables did not exceed the 0.8 threshold. Although the correlation between External Assurance and the moderating variable, External Assurance, reached 0.9717, this did not pose a problem in the main regression because the moderating variable was not analyzed simultaneously in the model with the original variables.

Model Specification Test

Due to the violation of classical assumptions in the regression model, which could potentially reduce the reliability of the research results, the Driscoll-Kraay standard error regression method was used to address this issue. This method is capable of producing robust standard error estimates, ensuring consistent and reliable analysis results despite data interference (Hoechle, 2007). The following are the results of the Driscoll-Kraay standard error regression:

Table 4. Model Specification Test – Model 1

Regression with Driscoll-Kraay standard errors		Number of obs	600
Method	Fixed-effects regression	Number of groups	120
Group variable (i)	ID	F (7, 4)	1089.22
Maximum lag	2	Prob > F	0.0000
Corr (u_i, Xb)	0 (assumed)	within R-Squared	0.0829

Source: Data processed – STATA 17 (2025)

Table 5. Model Specification Test – Model 2

Regression with Driscoll-Kraay standard errors		Number of obs	600
Method	Fixed-effects regression	Number of groups	120
Group variable (i)	ID	F (7, 4)	8.49
Maximum lag	2	Prob > F	0.0281
Corr (u_i, Xb)	0 (assumed)	within R-Squared	0.0665

Source: Data processed – STATA 17 (2025)

Table 6. Model Specification Test – Model 3

Regression with Driscoll-Kraay standard errors		Number of obs	600
Method	Fixed-effects regression	Number of groups	120
Group variable (i)	ID	F (7, 4)	1037.55
Maximum lag	2	Prob > F	0.0000
Corr (u_i, Xb)	0 (assumed)	within R-Squared	0.0814

Source: Data processed – STATA 17 (2025)

Table 7. Model Specification Test – Model 4

Regression with Driscoll-Kraay standard errors		Number of obs	600
Method	Fixed-effects regression	Number of groups	120
Group variable (i)	ID	F (7, 4)	222.05
Maximum lag	2	Prob > F	0.0001
Corr (u_i, Xb)	0 (assumed)	within R-Squared	0.0655

Source: Data processed – STATA 17 (2025)

Table 4 shows the results of the F-test for Model 1 with Tobin's Q as a proxy for the dependent variable. The probability value (Prob > F) of 0.0000 is lower than the specified significance limit of 5% (0.05), so it can be concluded that all independent variables in Model 1 simultaneously have a significant effect on Tobin's Q. The results of the F-test for Model 2 with ROA as a proxy for the dependent variable can be seen in Table 5. The probability value (Prob > F) of 0.0281 is lower than the specified significance limit of 5% (0.05), so it can be concluded that all independent variables in Model 2 simultaneously have a significant effect on ROA. The results of the F-test for Model 3, with Tobin's Q as a proxy for the dependent variable, are presented in Table 6. The probability value (Prob > F) is 0.0000, which is lower than the specified significance limit of 5% (0.05); therefore, it can be concluded that all independent variables in Model 3 simultaneously have a significant effect on the Tobin's Q variable. The results of the F-test for Model 4, with ROA as a proxy for the dependent variable, are presented in Table 7. The probability value (Prob > F) of 0.0001 is lower than the specified significance limit of 5% (0.05), so it can be concluded that all independent variables in Model 4 simultaneously have a significant effect on the ROA variable.

As shown in Table 4, Model 1 yielded a coefficient of determination (R-squared) of 0.0829. This indicates that only approximately 8.29% of the variation in Tobin's Q, a company performance indicator, can be explained by all of the analyzed independent variables. Meanwhile, the remaining 91.71% is due to the influence of other external factors not included in this research model framework. According to Table 5, Model 2 yielded a coefficient of determination (R-squared) of 0.0665. This indicates that only approximately 6.65% of the variation in ROA, a company performance indicator, can be explained by all of the analyzed independent variables. Meanwhile, the remaining 93.35% is due to the influence of other external factors not included in this research model framework. According to Table 6, Model 3 yielded a coefficient of determination (R-squared) of 0.0814. This indicates that only approximately 8.14% of the variation in Tobin's Q, a company performance indicator, can be explained by all the independent variables analyzed. Meanwhile, the remaining 91.86% is influenced by other external factors not included in this research model framework. Based on Table 7, Model 4 yields a coefficient of determination (R-squared) of 0.0655. This indicates that only approximately 6.55% of the variation in ROA, a company performance indicator, can be explained by all the independent variables analyzed. Meanwhile, the remaining 93.45% is influenced by other external factors not included in this research model framework.

Hypothesis Test

The t-statistic and p-value were used to test the hypotheses in this study. The hypothesis is declared supported if the p-value is less than the significance threshold of 0.05. The findings of the hypothesis testing are shown in Table 8.

Table 8. Hypothesis Test

Variable	Coefficient	std. err.	t	P > |t|	[95% conf. interval]	
ESG -> Tobin's Q	-0.013	0.005	-2.48	0.068	-0.027	0.001
ESG -> ROA	-0.001	0.000	-1.61	0.182	-0.002	0.001
EXTASSUR -> Tobin's Q	-0.214	0.031	-6.82	0.002	-0.301	-0.127
EXTASSUR -> ROA	0.009	0.009	0.94	0.401	-0.017	0.035
ESGEXTASSUR -> Tobin's Q	-0.002	0.000	-5.84	0.004	-0.003	-0.001
ESGEXTASSUR -> ROA	0.000	0.000	0.34	0.753	0.000	0.000

Source: Data processed – STATA 17 (2025)

Discussion

ESG Has a Negative and Significant Effect on Firm Performance (Tobin's Q)

The one-tailed hypothesis test in Table 8 yields a probability value of 0.068, or 6.8%, for the ESG variable, which is subsequently halved to 0.034, or 3.4%. Hypothesis 1a was accepted at the 5% significance level (0.05) with a coefficient of -0.013. This indicates that ESG has a significant negative impact on company performance, as measured by Tobin's Q. This conclusion is consistent with research by Firmansyah et al. (2023) which states that in the early stages of ESG adoption, companies require significant capital expenditures as a form of long-term investment, potentially limiting company profitability. Furthermore, an inadequate understanding of ESG practices can result in ineffective or misguided implementation, negatively impacting a company's performance. The same is true for Truong (2024), who found that ESG has a detrimental impact on Tobin's Q.

This finding is consistent with agency theory, which emphasizes the existence of conflicts of interest between management and shareholders. Agency theory, developed by Jensen & Meckling (1976), suggests that ESG adoption can lead to agency conflicts regarding the allocation of sustainability management expenditures. Shareholders may be concerned that sustainability expenditures reduce profits, while management may be more focused on non-financial goals, such as enhancing the company's reputation or attracting investors. This conflict can lead to agency costs, including monitoring costs and residual losses. This also aligns with Friedman (1970) Shareholder theory, which states that managers may overinvest in ESG initiatives to the detriment of shareholder interests. The primary goal of a company is to maximize shareholder wealth; therefore, sustainability investments that exceed legal requirements are considered wasteful and detrimental to financial performance.

ESG has no Significant Effect on Firm Performance (ROA)

Based on Table 8, since the hypothesis test is one-tailed, the probability value of the ESG variable is 0.182, or 18.2%. This value is then divided by two to yield 0.091, or 9.1%. Hypothesis 1b is rejected because the significance level used in this investigation is 5%, or 0.05. This finding suggests that Environmental, Social, and Governance (ESG) performance does not significantly influence firm performance when measured by Return on Assets (ROA). In other words, companies with higher ESG scores do not necessarily achieve better operational efficiency or profitability in the short term. This conclusion aligns with the research conducted by Junius et al. (2020), which analyzed firms across four ASEAN countries and found no statistically significant relationship between ESG scores and financial indicators such as ROA, ROE, and Tobin's Q. The authors argue that ESG metrics may not yet be fully integrated into core business strategies or performance evaluations, particularly in developing markets where sustainability reporting is still evolving. Similarly, Johnson et al. (2019) observed that while ESG initiatives may enhance reputation or stakeholder trust, their direct impact on financial returns remains inconclusive.

This challenges the assumption that ESG adoption automatically translates into improved financial outcomes. Instead, they highlight the possibility that ESG benefits may be more long-term, reputational, or context-dependent. Factors such as industry type, regulatory environment, and stakeholder expectations may mediate the relationship between ESG and firm performance. Moreover, the lack of impact on ROA could reflect limitations in how ESG is measured or reported, as well as the time lag between ESG investments and their financial payoff. Therefore, while ESG remains a valuable framework for ethical and sustainable business conduct, its financial implications may require more nuanced analysis and longer observation periods to be fully understood.

This implies that ESG adoption has a limited effect on firm performance in terms of accounting-based measures. Similarly, Kitulazzi et al. (2025), who investigated the relationship between ESG investments and firm performance among publicly traded property companies in Johannesburg, found that composite ESG had a significant negative effect on firm performance as measured by Tobin's Q (a market-based indicator). Furthermore, research indicates that composite ESG does not significantly impact ROA and ROE, which are key accounting-based metrics of company performance.

External Assurance Has a Negative and Significant Effect on Firm Performance (Tobin's Q)

The External Assurance variable has a probability value of 0.002, or 0.2% (see Table 8), which is then divided by two to produce 0.001, or 0.1%, because the hypothesis test is one-tailed. With a significance level of 5% or 0.05 and a coefficient value of -0.214, Hypothesis 2a is accepted. Considering this, it can be concluded that External Assurance has a detrimental and substantial impact on company performance as measured by Tobin's Q. This result is in line with research conducted by Oware & Mallikarjunappa (2019) and Shafira & Hersugondo (2023) which concluded that the existence of external assurance has a detrimental and substantial impact on company performance. One contributing factor is the limited understanding of stakeholders regarding the importance of external assurance in sustainability reporting.

Furthermore, businesses that use external assurance services incur additional costs that do not directly contribute to profitability. As a result, these businesses offer limited economic benefits and negatively impact company performance. There is also a connection between these results and agency theory developed by Jensen & Meckling (1976). Conflicts of interest can arise between management and shareholders when allocating funds to engage independent third-party services, particularly in the implementation of external assurance for sustainability reporting. Shareholders may be concerned that such expenditures will reduce profits. Conversely, management may be more focused on achieving non-financial goals such as increasing the transparency and credibility of sustainability reporting to enhance reputation and attract investors. This conflict can result in additional agency expenses, such as monitoring costs and residual losses.

External Assurance Has No Significant Effect on Firm Performance (ROA)

The External Assurance variable has a probability value of 0.401, or 40.1%, which is then divided by two to yield 0.2005, or 20.05%, because the hypothesis test is one-sided (see Table 8). This study uses a significance threshold of 5%, equivalent to 0.05, and thus, Hypothesis 2b is rejected. This suggests that External Assurance does not impact firm performance, as measured by ROA. This finding suggests that the use of external assurance in sustainability reporting does not have a significant impact on firm performance, particularly when measured by Return on Assets (ROA). Naibaho & Shahab (2025) concluded that while assurance is intended to enhance the credibility of sustainability disclosures, it does not necessarily translate into improved operational efficiency or profitability. This may be due to variations in the quality and scope of assurance services, as well as stakeholder trust in the independence and competence of assurance providers. In many cases, assurance remains a formal compliance exercise rather than a strategic tool linked to financial outcomes.

Moreover, the influence of assurance on investor and stakeholder perceptions is highly dependent on the firm's specific operating conditions and the broader market's understanding of its value. In contexts where sustainability is not yet fully embedded into core business strategies, assurance may not be viewed as a key factor in investment decisions or performance evaluations. Therefore, while external assurance holds potential for strengthening transparency and accountability, its financial benefits appear to be more long-term and context-dependent rather than immediate or universal.

External Assurance as a Moderator Between ESG and Firm Performance (Tobin's Q)

In Table 8, External Assurance has a probability value of 0.004, equivalent to 0.4%, for the ESG variable it regulates. Hypothesis 3a is accepted when the significance level is set at 5% or 0.05, and the coefficient value is set at -0.002. This indicates that External Assurance can moderate the relationship between ESG and firm performance as proxied by Tobin's Q.

This finding is consistent with the research of Thompson et al. (2022), which states that the use of external assurance in sustainability reporting has a moderating effect on the relationship between sustainability reporting and firm value. To some extent, the value of sustainability reports depends on the presence of external assurance in a company's sustainability disclosure. Furthermore, this is consistent with the conclusion of Oware et al. (2022), who concluded that external assurance can moderate the relationship between philanthropic giving, as part of CSR implementation, and firm performance. According to their research findings, the relationship between mandatory corporate social responsibility reporting and business performance can also be mediated by external assurance.

External Assurance Does Not Moderate the Relationship Between ESG and Firm Performance (ROA)

Table 8 shows a probability value of 0.753, equivalent to 75.3%, for the ESG variable governed by External Assurance. Because this study used a significance threshold of 5%, or 0.05, Hypothesis 3b is not supported. This suggests that the impact of ESG on firm performance, as measured by ROA, is not significantly moderated by external assurance. The finding that external assurance does not significantly moderate the relationship between ESG and firm performance, as indicated by a probability value of 0.753, can be interpreted through the lens of agency theory.

Agency theory posits that mechanisms such as external assurance are designed to reduce information asymmetry between principals (shareholders) and agents (managers), thereby enhancing transparency and accountability (Jensen & Meckling, 1976). In theory, assurance should strengthen the credibility of ESG disclosures, signaling managerial commitment to long-term value creation and reducing opportunistic behavior. However, the absence of a significant moderating effect suggests that assurance may not be functioning as an effective governance tool in this context. This could be due to the voluntary nature of ESG assurance in many jurisdictions, its limited scope, or the possibility that stakeholders do not perceive assurance as a meaningful signal of performance-enhancing behavior (Manetti & Becatti, 2009; KPMG, 2024).

Empirical studies offer mixed evidence on this issue. For instance, while some research finds that assurance improves ESG credibility and is positively associated with firm value (Simnett et al., 2009; Clarkson et al., 2019), others report that assurance does not consistently enhance financial outcomes such as ROA (Inayati et al., 2025). In the Indonesian context, ESG implementation is still evolving, and assurance practices may lack standardization or depth, limiting their impact on investor perceptions and financial metrics. Moreover, ESG activities may be driven more by legitimacy-seeking behavior than by strategic integration, which weakens their link to performance outcomes (Suchman, 1995). The high p-value in this study suggests that external assurance does not significantly alter the ESG–ROA relationship, possibly because ESG disclosures—whether assured or not—do not yet translate into operational efficiencies or profitability gains that are measurable by ROA. This aligns with findings from regional studies that highlight the contextual and sectoral variability in ESG effectiveness (Almeyda & Darmansya, 2019; Tumewang et al., 2025).

CONCLUSION

This study aims to examine the influence of ESG and external assurance on firm performance, with external assurance acting as a moderating variable. Through purposeful selection, a total of 120 firms from ASEAN-5 countries were identified for the period spanning 2019 to 2023, resulting in 600 observations for the sample under investigation. These findings allow various conclusions to be drawn. The impact of Environmental, Social, and Governance (ESG) factors on firm performance, as assessed

by Tobin's Q, is highly negative and substantial. Meanwhile, there is no observable impact of ESG on the performance of publicly traded ASEAN-5 firms as assessed by ROA from 2019 to 2023. This indicates that the findings do not fully confirm the proposed hypothesis. The impact of external assurance on firm performance, as indicated by Tobin's Q, is highly negative and significant. Meanwhile, external assurance does not appear to impact corporate performance, as indicated by ROA, in publicly traded ASEAN-5 companies from 2019 to 2023. The findings of this study do not fully support the proposed hypothesis. The effect of ESG on business performance, as indicated by Tobin's Q, is moderated by external assurance. However, external assurance does not reduce the relationship between ESG and corporate performance, as indicated by ROA. This suggests that the findings of this study do not fully support the proposed hypothesis.

These findings have numerous implications that can benefit various stakeholders, including investors, companies, and the academic community. This study provides a framework for investors to assess and formulate appropriate investment strategies. The results, which indicate that ESG and external assurance have a negative impact on business performance, suggest that investors should exercise caution when assessing companies that implement sustainability initiatives. Before investing, investors are advised to assess not only the existence of such processes but also their effectiveness and actual impact on company performance. This study can serve as a reference for companies in assessing and evaluating the implementation of sustainability strategies, particularly those related to ESG and external assurance. Given the results showing a negative impact on company performance, companies must carefully formulate and implement sustainability programs to prevent compromising financial success.

Furthermore, companies should reassess their sustainability initiatives to ensure alignment with organizational performance objectives. This study lays the groundwork for future academic research on the relationship between ESG, external assurance, and company performance, with a particular focus on the moderating effect of external assurance. Future studies should expand their scope by including additional variables that may influence this relationship. Future research could examine the long-term impact of ESG implementation and external assurance on financial performance.

This study has several limitations that should be acknowledged. Initially, sample selection challenges arose when many listed companies in ASEAN-5 countries failed to meet sampling requirements, including the absence of ESG scores from the Thomson Reuters Eikon database, unpublished sustainability reports, or incomplete data for variable calculations. This study included a sample of 120 companies, resulting in a total of 600 observations. Its temporal parameters and geographic focus limit this study, as it only covers a five-year period (2019–2023) and focuses solely on firms located in ASEAN-5 countries, excluding the financial sector.

Authors' Contribution

All authors equally contribute to the research and writing the article.

Conflict of Interest

The authors declare no competing interests.

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Availability of Data and Materials

The data and materials can be accessed from the Indonesian Stock Exchange (https://www.idx.co.id/id) and the company's websites, which provide annual reports and sustainability reports.

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