

Audit Committee, ESG Score, and Firm Value: An Information Systems Audit Perspective for Automotive Companies

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ABSTRACT

This study investigates the effect of Environmental, Social, and Governance (ESG) scores on firm value and examines the moderating role of the audit committee from an information systems audit perspective in Indonesian automotive companies. Using an explanatory quantitative approach, this research employs firm-year secondary data from automotive sector firms listed on the Indonesia Stock Exchange over the 2021–2023 period. Firm value is measured using Tobin's Q, ESG performance is proxied by composite ESG scores, and the audit committee is represented by its size as an internal governance mechanism. Data are analyzed using multiple linear regression and Moderated Regression Analysis (MRA) with SPSS 27. The findings reveal that ESG scores do not have a significant effect on firm value, indicating that capital market participants have not fully internalized ESG information as a primary determinant of valuation within the Indonesian automotive sector. In contrast, the audit committee demonstrates a positive and significant effect on firm value, highlighting the importance of effective internal monitoring mechanisms in enhancing market confidence. Furthermore, the interaction between ESG scores and the audit committee is negative and statistically insignificant, suggesting that the audit committee does not strengthen the ESG–firm value relationship but functions more as a screening mechanism that ensures the credibility and reliability of ESG information produced by corporate information systems. This study contributes to the ESG and corporate governance literature by integrating an information systems audit perspective, emphasizing that ESG effectiveness as a value-relevant signal depends on the quality of internal oversight and data integrity. Practically, the findings imply that strengthening audit committees and ESG-related information systems is crucial for improving ESG credibility in emerging capital markets.

1. Introduction

In recent years, the integration of Environmental, Social, and Governance (ESG) factors into corporate decision-making has emerged as a crucial determinant of long-term business sustainability and investor confidence. Globally, ESG has evolved from a peripheral disclosure to a key non-financial risk metric, influencing firm valuation and market perception ([Aydoğmuş, Gülay, & Ergun, 2022](#); [Li, Lau, & Ng, 2025](#)). Empirical evidence suggests that high ESG performance is

positively associated with firm value and financial performance, particularly in developed markets with robust reporting and assurance mechanisms ([Desai, 2024](#); [Fatemi, Glaum, & Kaiser, 2018](#)). However, findings remain inconsistent across industries, countries, and measurement models, with some studies reporting insignificant or even negative relationships, especially in emerging markets where regulatory frameworks, corporate governance practices, and ESG data quality vary widely ([Duque-Grisales &](#)

[Aguilera-Caracuel, 2021](#); [Olivia, Riswandari, Nelson, & Jeninfer, 2025](#)). This highlights that ESG does not possess intrinsic value relevance universally; rather, its effectiveness as a signaling mechanism critically depends on the credibility and reliability of ESG data as perceived by the market.

In the Indonesian context, the importance of ESG is reinforced by regulatory pressures, institutional investor expectations, and national commitments toward sustainable development and green economic transitions. The Indonesia Stock Exchange (IDX) has responded by developing ESG-based indices and promoting sustainability disclosure among listed companies. Despite these initiatives, implementation challenges remain, including greenwashing risks, limited internal assurance, and heavy reliance on qualitative narratives that are not fully supported by robust information systems ([Negara, Ishak, & Priambodo, 2024](#)). For firms, especially in the automotive sector, ESG data quality hinges on the reliability of organizational information systems that capture environmental emissions, occupational safety, supplier compliance, and internal governance metrics. Digitalization further amplifies the role of data architecture in integrating operational reporting with ESG communication to stakeholders. Recent studies underscore how digital ESG indicators, such as carbon sentiment extracted from news sources, interact with ESG performance to affect sustainable growth, emphasizing the centrality of information ecosystems in ESG evaluation ([Xie, 2024](#)). Consequently, the key issue is not only whether ESG affects firm value but also the extent to which ESG is a credible and value-relevant signal—where the audit committee and an information systems audit perspective become particularly pertinent.

Despite growing literature, several research gaps remain. First, ESG–firm value studies often focus on direct relationships and cross-country or industry heterogeneity but rarely address ESG information credibility as an output of organizational information systems ([Xie, 2024](#)). Second, corporate

governance research emphasizes audit committee characteristics or external audit quality in enhancing ESG disclosure credibility, yet the role of the audit committee as a bridge via information systems audit remains underexplored, particularly in sector-specific contexts ([Adnan, Al-Ahdal, Almaqtari, Sahu, & Bajaher, 2026](#); [Maji & Tiwari, 2025](#)). Third, empirical evidence from Indonesia indicates that ESG scores may not significantly impact firm value, suggesting that market skepticism regarding ESG data quality, rather than ESG irrelevance, might explain inconsistent findings ([Negara et al., 2024](#); [Olivia et al., 2025](#)). These gaps justify an investigation into how audit committees influence the ESG–firm value relationship, using an information systems audit lens to capture mechanisms that ensure data reliability and market credibility.

Based on these gaps, this study addresses the following research problem: To what extent do ESG scores influence firm value in Indonesian automotive companies, and how does the audit committee moderate this relationship through an information systems audit perspective? Specifically, the study aims to examine (1) the direct effect of ESG scores on firm value, (2) the direct effect of audit committee characteristics on firm value, and (3) the moderating role of the audit committee in the ESG–firm value relationship.

Theoretically, this research contributes to ESG and corporate governance literature by reframing ESG as an output of information systems, emphasizing the role of internal governance in ensuring data integrity and credibility. By positioning the audit committee as a screening mechanism rather than a simple enhancer, the study advances a “digital-aware governance” perspective, integrating non-financial performance, internal monitoring, and data reliability. Practically, the findings provide guidance for automotive companies, regulators, and investors in emerging markets: strengthening audit committees and ESG-related information systems is critical for improving ESG credibility, enhancing investor confidence, and facilitating sustainable value

creation. The study's novelty lies in combining ESG evaluation, firm value assessment, and information systems audit within a developing market context, offering insights that are both academically rigorous and operationally relevant.

2. Literature Review

The literature review establishes the conceptual and empirical foundations of this study by integrating corporate governance theory, information asymmetry, and sustainability reporting with recent empirical evidence on Environmental, Social, and Governance (ESG) performance, audit committees, and firm value. Recent advances in sustainability and capital market research increasingly recognize ESG information as a strategic signal that may influence investor perception and firm valuation; however, its effectiveness depends heavily on governance quality and the credibility of the information systems underlying ESG disclosure ([Boulouta & Pitelis, 2022](#); [García-Sánchez et al., 2021](#)).

This section emphasizes how ESG information functions as market-relevant information whose value relevance is contingent upon internal governance mechanisms, particularly audit committees, and the reliability of ESG-related data generation processes. These issues are especially salient in emerging markets and high-risk industries such as automotive manufacturing, where institutional environments and sustainability risks are more complex ([Nguyen et al., 2023](#); [Lokuwaduge & De Silva, 2022](#)).

2.1 Conceptual and Theoretical Foundations

Environmental, Social, and Governance (ESG) performance has become an essential dimension of contemporary corporate evaluation, reflecting a firm's long-term commitment to sustainability, stakeholder engagement, and governance quality. From a theoretical standpoint, ESG disclosure is primarily explained through signaling theory and agency theory. Signaling theory posits that

firms voluntarily disclose ESG information to convey superior quality, reduced non-financial risk, and sustainable growth prospects to capital market participants ([Connelly et al., 2022](#)). When ESG disclosures are perceived as credible and consistent, they can reduce information asymmetry and enhance firm value ([Broadstock et al., 2021](#)).

Conversely, agency theory emphasizes the potential for managerial opportunism in ESG reporting, particularly when monitoring and assurance mechanisms are weak. Managers may engage in symbolic disclosure or greenwashing to enhance legitimacy without corresponding improvements in underlying performance ([Michelon et al., 2021](#); [Hummel & Schlick, 2023](#)). This theoretical tension highlights that ESG information is not inherently value-relevant; rather, its impact depends on governance structures that ensure credibility and accountability.

Within this framework, corporate governance mechanisms play a crucial role in shaping how ESG information is interpreted by investors. The audit committee, as a core internal governance body, is responsible for overseeing financial and non-financial reporting, internal control systems, and risk management processes. Consistent with agency theory, an effective audit committee mitigates conflicts of interest by strengthening monitoring and assurance functions ([Alqatamin, 2022](#)). Recent governance literature further documents an expansion of the audit committee's responsibilities beyond traditional financial reporting to include sustainability reporting and ESG-related oversight ([Velte, 2023](#)).

The increasing digitalization of corporate reporting reinforces the relevance of an information systems audit perspective in ESG research. ESG metrics are largely produced through organizational information systems that capture, process, and integrate data on emissions, energy consumption, workplace safety, supply chain compliance, and governance practices. Consequently, ESG performance can be conceptualized as an

output of corporate information systems, where data integrity, internal controls, and auditability determine reliability (Appel et al., 2022). In this context, the audit committee functions as a bridge between governance and information systems by ensuring that ESG-related data are accurate, consistent, and verifiable. Without effective oversight of ESG information systems, ESG disclosures may fail to operate as credible signals, thereby weakening their potential impact on firm value.

2.2 Review of Empirical Studies

Recent empirical studies provide mixed evidence regarding the relationship between ESG performance and firm value. Evidence from developed markets predominantly indicates a positive association between ESG performance and firm value, suggesting that investors reward firms with strong sustainability practices due to lower perceived risk and superior long-term prospects (Friede et al., 2021; Atan et al., 2022). These findings are often attributed to mature regulatory environments, standardized ESG reporting frameworks, and stronger external assurance that enhance ESG credibility.

In contrast, empirical evidence from emerging markets remains heterogeneous. Several recent studies document insignificant or even negative relationships between ESG performance and firm value, indicating that ESG information may not be fully incorporated into investor valuation decisions (Nguyen et al., 2023; Bamahros et al., 2022). These inconsistencies are frequently explained by institutional weaknesses, uneven ESG adoption, limited assurance, and persistent skepticism regarding ESG data quality. In such settings, ESG disclosures are often perceived as soft information with limited decision usefulness.

Parallel governance-oriented research consistently reports a positive relationship between audit committee characteristics and firm value. Firms with stronger audit committees—measured in terms of independence, expertise, and activity—tend to

exhibit higher valuation and enhanced market confidence (Alqatamin, 2022; Khatib et al., 2021). This effect is particularly salient in emerging markets, where internal governance mechanisms substitute for weaker external enforcement.

More recent sustainability-focused studies extend the role of audit committees to ESG oversight. Cross-country analyses and meta-analytic evidence suggest that audit committee effectiveness is positively associated with sustainability disclosure quality and ESG performance (Velte, 2023; García-Sánchez et al., 2022). However, empirical findings regarding the moderating role of audit committees in the ESG–firm value relationship remain inconclusive. While some studies find that audit committees strengthen the positive valuation effects of ESG, others report weak or insignificant moderation effects. This divergence suggests that audit committees may function less as amplifiers of ESG impact and more as screening mechanisms that evaluate ESG credibility.

2.3 Identification of the Research Gap

Despite the expanding literature on ESG and firm value, several critical gaps persist. First, most studies treat ESG scores as exogenous and inherently value-relevant, paying limited attention to the quality of the information systems that generate ESG data. This approach overlooks the possibility that inconsistent ESG–firm value relationships, particularly in emerging markets, stem from concerns over data integrity and assurance rather than ESG irrelevance.

Second, although audit committees are extensively examined as governance mechanisms, their role is predominantly conceptualized as a direct determinant or moderator of ESG outcomes. Limited research positions the audit committee as an information systems audit mechanism responsible for ensuring ESG data credibility. This gap is particularly relevant in high-risk and technologically complex industries such as automotive manufacturing, where ESG

indicators are highly sensitive to system quality and internal controls.

Third, empirical evidence from Indonesia and similar emerging economies frequently reports that ESG disclosure and ESG scores do not significantly affect firm value. However, existing studies provide limited mechanistic explanations for this phenomenon. Few studies integrate governance and information systems perspectives to explain why ESG information may fail to be internalized by capital markets. Addressing these gaps, this study conceptualizes the audit committee as a screening mechanism that shapes how ESG information is evaluated by investors rather than assuming a universally positive ESG–firm value relationship.

2.4 Development of the Conceptual Framework

Based on the preceding theoretical and empirical synthesis, this study develops a conceptual framework linking ESG Score, audit committee, and firm value from an information systems audit perspective. Firm value, proxied by Tobin's Q, reflects market assessments of a firm's current performance and future growth opportunities. ESG Score represents sustainability performance as perceived through disclosed ESG metrics, which are outputs of corporate information systems.

The audit committee is conceptualized as an internal governance mechanism overseeing both financial and non-financial reporting, including ESG-related data processes. Rather than merely strengthening the ESG–firm value relationship, the audit committee is expected to influence how ESG information is interpreted by the market by enhancing credibility and filtering out low-quality or symbolic disclosures. Consequently, the interaction between ESG Score and audit committee effectiveness is expected to be contextual and potentially non-linear, reflecting a screening rather than an amplifying role.

2.5 Hypotheses

Drawing on signaling theory, agency theory, and the information systems audit perspective, this study formulates the following hypotheses:

H1: Environmental, Social, and Governance (ESG) Score has a significant effect on firm value.

H2: The audit committee has a positive and significant effect on firm value.

H3: The audit committee moderates the relationship between ESG Score and firm value.

These hypotheses are empirically testable and contribute to ESG and corporate governance literature by emphasizing information credibility and internal oversight as key determinants of ESG value relevance, particularly in emerging markets and the automotive industry.

3. Research Methods

The research methodology section describes the systematic procedures adopted to examine the relationship between Environmental, Social, and Governance (ESG) score, audit committee, and firm value from an information systems audit perspective. The methodological design is structured to ensure transparency, rigor, and replicability, while maintaining strong alignment between the research objectives, data characteristics, and analytical techniques. By employing appropriate quantitative methods and validated measurements, this study seeks to generate robust empirical evidence that addresses the identified research gap and contributes to the ESG and corporate governance literature in emerging markets.

3.1 Research Design

This study adopts a quantitative explanatory research design aimed at testing hypothesized relationships among ESG score, audit committee, and firm value. The explanatory approach is suitable because the study focuses on identifying causal relationships grounded in corporate governance, signaling theory, and information systems audit perspectives. Quantitative

analysis enables objective measurement of relationships among variables and allows for statistical inference regarding their significance and direction. Furthermore, the use of moderated regression analysis facilitates examination of the audit committee's role in shaping the ESG–firm value relationship, consistent with the study's theoretical framework.

3.2 Research Context and Setting

The research is conducted within the automotive industry in Indonesia, focusing on firms listed on the Indonesia Stock Exchange. The automotive sector represents a context characterized by complex supply chains, high environmental exposure, and stringent safety and governance requirements, making ESG performance particularly salient. Indonesia is selected as the geographical setting due to its status as an emerging capital market where ESG implementation is still evolving and where market responses to sustainability information remain heterogeneous. This context provides a relevant setting for examining whether ESG information is internalized into firm value and how internal governance mechanisms influence this process.

3.3 Population and Sample

The population of this study consists of all automotive and automotive-related component firms listed on the Indonesia Stock Exchange during the observation period. A purposive sampling technique is employed to select firms that meet specific criteria, including consistent publication of annual reports and corporate governance disclosures, availability of ESG score data, and completeness of financial information throughout the study period. Based on these criteria, the final sample comprises firm-year observations over the 2021–2023 period. The firm-year unit of analysis allows the study to capture both cross-sectional and temporal variations in ESG performance, governance characteristics, and firm value.

3.4 Data Sources and Data Collection

This study utilizes secondary data obtained from publicly available sources. Firm-level financial data and governance information are collected from annual reports and official disclosures published by the Indonesia Stock Exchange. ESG score data are sourced from established ESG databases and sustainability disclosures. The use of secondary data minimizes respondent bias and enhances data consistency, while reliance on audited and publicly disclosed information strengthens the credibility and verifiability of the dataset.

3.5 Measurement of Variables and Research Instruments

Firm value is measured using Tobin's Q, which reflects market perceptions of firm performance and growth prospects by comparing the market value of assets to their book value. ESG performance is operationalized using a composite ESG score that captures environmental, social, and governance dimensions of sustainability performance. The audit committee variable is measured by the size of the audit committee, proxied by the number of committee members, reflecting the internal monitoring capacity of the firm. All measurements are adapted from prior empirical studies published in reputable international journals, ensuring construct validity and comparability with existing literature.

3.6 Data Analysis Techniques

Data analysis is conducted using Statistical Package for the Social Sciences (SPSS) version 27. The analysis begins with descriptive statistics to summarize the characteristics and distribution of the variables. Classical assumption tests, including assessments of normality and residual patterns, are performed to ensure the appropriateness of regression analysis. Multiple linear regression is employed to examine the direct effects of ESG score and audit committee on firm value. Moderated Regression Analysis (MRA) is then applied by

introducing an interaction term between ESG score and audit committee to test the moderating effect. Model evaluation is based on coefficient estimates, t-statistics, significance levels, and changes in explanatory power.

3.7 Validity, Reliability, and Trustworthiness

To ensure validity, this study employs measurement indicators that have been widely used and validated in prior empirical research. Construct validity is supported through the use of established proxies for firm value, ESG performance, and audit committee characteristics. Reliability is ensured by relying on audited financial statements and standardized ESG scoring methodologies. The robustness of the regression models is further supported through assumption testing and consistency checks, enhancing the overall trustworthiness of the findings.

3.8 Ethical Considerations

This research adheres to ethical standards applicable to empirical studies using secondary data. All data are obtained from publicly available sources, ensuring transparency and compliance with data protection regulations. No confidential or personal information is used, and all sources are properly acknowledged to maintain academic integrity and ethical responsibility.

3.9 Research Procedure

The research procedure follows a structured sequence beginning with the identification of the research problem and formulation of hypotheses based on theory and prior literature. This is followed by data collection from relevant databases and official disclosures, data screening and preparation, statistical analysis, and interpretation of results. The final stage involves discussion of findings in relation to the theoretical framework and derivation of conclusions and implications. This systematic procedure

enhances methodological clarity and facilitates replication.

3.10 Methodological Limitations

Despite its rigor, this study has several methodological limitations. The sample size is relatively limited and confined to a single industry, which may restrict the generalizability of the findings. The audit committee is measured solely by size, which may not fully capture qualitative aspects such as independence, expertise, or effectiveness. Additionally, the use of composite ESG scores limits the ability to examine the differential effects of environmental, social, and governance dimensions individually. These limitations provide avenues for future research to extend the methodological scope and deepen empirical insights.

4. Results and Discussion

This section presents and discusses the empirical findings of the study in a structured and transparent manner. The Results subsection focuses on reporting the outcomes of data analysis objectively through descriptive statistics, classical assumption tests, and regression results, supported by tables and figures. The Discussion subsection interprets these findings by linking them to relevant theories, prior empirical studies, and the research gap identified earlier. Together, these subsections demonstrate the contribution of the study to the literature on firm value, ESG, and corporate governance.

4.1 Research Results

This subsection reports the empirical findings derived from secondary data analysis of automotive companies. The results are organized sequentially, starting from descriptive statistics, followed by data quality assessment, hypothesis testing, and visual presentation of results.

4.1.1 Sample Description and Descriptive Statistics

The research sample consists of 20 firm-year observations that met the sampling

criteria. Descriptive statistics of the research variables are presented in **Table 2**, which provides an overview of the distribution, central tendency, and variability of each variable.

Table 2. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Tobin's Q	20	0.00	1294.00	1170.35	286.03
ESG	20	0.00	56.00	22.65	19.44
Audit Committee	20	0.00	6.00	2.85	1.18
Valid N (listwise)	20				

Source: SPSS output (processed)

As shown in Table 2, firm value measured by Tobin's Q exhibits a very wide range, indicating substantial variation in market valuation among automotive firms. The ESG variable also shows considerable dispersion, reflecting heterogeneous sustainability performance. In contrast, the audit committee variable demonstrates relatively low variability, suggesting a homogeneous governance structure across the sample firms.

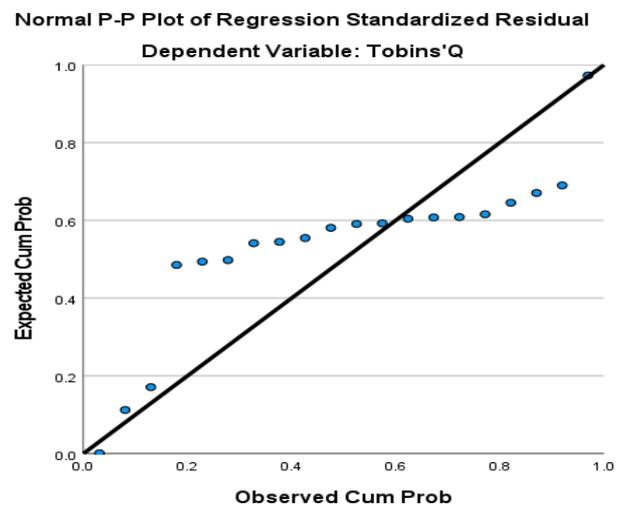
4.1.2 Data Quality and Preliminary Analysis

Prior to hypothesis testing, classical assumption tests were conducted to assess the suitability of the regression model. Normality was evaluated using the Normal Probability Plot (P-P Plot) of regression standardized residuals.

Figure 1. Normal P-P Plot of Regression Standardized Residuals

As illustrated in Figure 1, the residuals are distributed closely along the diagonal line, indicating that the normality assumption is reasonably satisfied. The dispersion pattern

also suggests no severe heteroskedasticity issues, confirming that the data meet the basic requirements for regression analysis.



4.1.3 Main Analytical Results and Hypothesis Testing

Multiple linear regression analysis using the Enter method was employed to examine the direct effects of ESG and audit committee size on firm value. The regression results are summarized in **Table 3**.

Table 3. Multiple Regression Results (Direct Effects Model)

Variable	Unstandardized Coefficient (B)	t-value	Sig.	R ²	ANOVA (Sig.)
Constant	802.34	5.247	0.001	0.285	0.058
ESG	1.280	0.386	0.704		
Audit Committee	118.94	2.179	0.044		

Source: SPSS output (processed)

Table 3 shows that the model explains 28.5% of the variation in firm value, with the ANOVA result indicating marginal significance

at the 10% level. Partially, the audit committee variable has a positive and statistically

significant effect on Tobin's Q, whereas ESG does not show a significant effect.

4.1.4 Moderated Regression Analysis

To examine the moderating role of the audit committee, moderated regression analysis

(MRA) was conducted by including the interaction term between ESG and audit committee size. The results are presented in

Table 4.
Table 4. Moderated Regression Analysis Results

Variable	Unstandardized Coefficient (B)	t-value	Sig.	R ²	ANOVA (Sig.)
Constant	647.000	3.771	0.002	0.394	0.041
ESG	15.058	1.728	0.103		
Audit Committee	187.579	2.854	0.011		
ESG × Audit Committee	-4.784	-1.696	0.109		

Source: SPSS output (processed)

As shown in Table 4, the inclusion of the interaction term increases the explanatory power of the model to 39.4%. The audit committee remains positively significant, while the interaction term shows a negative and marginally insignificant effect.

4.2 Research Discussion

4.2.1. ESG Does Not Have a Significant Effect on Firm Value

The results indicate that ESG performance does not have a significant effect on firm value as measured by Tobin's Q. This finding is supported by the empirical pattern showing that firms with low or even zero ESG scores are still able to maintain relatively high and stable market valuations. For instance, BOGA in 2021 and PMJS in 2021 recorded ESG scores of 0.00, yet their Tobin's Q values remained high at approximately 12.72 and 12.29, respectively. A similar pattern is observed for TURI in 2021 and 2022, where Tobin's Q remained strong (12.86 and 12.94) despite the absence of ESG scores.

This pattern suggests that ESG has not yet become a primary determinant of firm value in the Indonesian automotive sector. Investors appear to place greater emphasis on conventional financial fundamentals, such as operational performance (e.g., ROA and ROE), market position, and ownership stability. The relatively high level of institutional ownership across the sample firms, averaging above 80%, further indicates that governance stability and

control may outweigh sustainability considerations in valuation decisions.

From a theoretical perspective, these findings imply that ESG information functions primarily as *soft information* rather than a strong market signal. In emerging markets, ESG disclosures often suffer from limited standardization, uneven credibility, and weak integration into core business strategies. Consequently, ESG performance alone may not provide sufficient assurance to investors regarding future cash flows or risk mitigation. The insignificance of ESG in this study does not imply that ESG is irrelevant, but rather reflects that its credibility, consistency, and market integration remain limited. This condition is consistent with the characteristics of developing capital markets, where ESG adoption is still in an early phase and has not yet been fully internalized in firm valuation mechanisms.

4.2.2. Audit Committee Has a Significant Effect on Firm Value

In contrast to ESG, the audit committee is found to have a positive and statistically significant effect on firm value. The empirical evidence indicates that firms with a stable audit committee structure—typically consisting of three members—are able to maintain high and relatively consistent Tobin's Q values across observation periods. Companies such as ASLC, BOGA, CARS, MPMX, and PMJS consistently maintain audit

committees with three members, while their Tobin's Q values remain within the range of 12 to 13, even when ESG performance and profitability fluctuate.

This finding highlights that capital market participants are more responsive to governance mechanisms that are concrete, observable, and directly linked to internal oversight functions. The audit committee plays a critical role in supervising financial reporting processes, monitoring risk management practices, and ensuring regulatory compliance. As a result, its presence and stability provide a credible signal of transparency, accountability, and organizational reliability to investors.

In the context of the Indonesian automotive industry, which is characterized by high operational complexity, supply chain vulnerability, and environmental exposure, effective internal governance becomes a crucial factor in mitigating agency problems and information asymmetry. Therefore, the positive effect of the audit committee on firm value suggests that governance quality serves as a foundational element in shaping market confidence. This finding reinforces governance-based valuation theory, which posits that strong internal control mechanisms are essential for sustaining firm value, particularly in high-risk and capital-intensive industries.

4.2.3. The Interaction Between ESG and Audit Committee Is Negative and Not Significant

The moderated regression results reveal that the interaction between ESG and the audit committee has a negative coefficient and is statistically insignificant. Empirically, this result is reflected in cases where improvements in ESG performance are not followed by corresponding increases in firm value, even among firms with relatively strong audit committees. For example, MPMX recorded the highest ESG score in the sample in 2023 (0.56), yet its Tobin's Q declined slightly compared to the previous year. A similar pattern is observed in CARS, where an increase in ESG from 0.47 in 2022 to 0.49 in 2023 did not result in a meaningful increase in Tobin's Q.

The negative direction of the interaction coefficient suggests that the audit committee may function more as a *screening mechanism* rather than as a direct amplifier of ESG's impact on firm value. When audit committees operate effectively, they tend to scrutinize ESG disclosures more rigorously, thereby increasing the market's critical assessment of sustainability information. As a result, ESG initiatives that are not fully integrated into operational performance or lack substantive economic impact may not be immediately rewarded by investors.

Moreover, the insignificance of the moderating effect can also be attributed to the limited variation in audit committee size across the sample, with most firms maintaining a similar committee structure. This homogeneity reduces the statistical power of the model to capture strong moderating effects. Consequently, the weak moderation result does not imply the absence of governance mechanisms, but rather indicates that the audit committee's primary role lies in safeguarding firm value stability and controlling reputational and financial risks, rather than directly strengthening the valuation impact of ESG performance.

5. Conclusion

This section synthesizes the main findings of the study and highlights their significance without introducing new data or analysis. The conclusion demonstrates how the research objectives have been achieved, clarifies the theoretical and practical contributions of the study, and outlines its limitations and directions for future research. Overall, this section reinforces the coherence between the research problem, empirical results, and the contributions of the study to the literature on ESG, corporate governance, and firm value in emerging markets.

5.1 Summary of Key Findings

This study aimed to examine the effect of Environmental, Social, and Governance (ESG) performance on firm value and to analyze the

role of the audit committee in moderating this relationship from an information systems audit perspective in Indonesian automotive companies. Based on empirical analysis using multiple linear regression and moderated regression analysis, several key findings can be summarized.

First, the results show that ESG performance does not have a significant effect on firm value as measured by Tobin's Q. This finding indicates that ESG information has not yet been fully incorporated into market valuation mechanisms in the Indonesian automotive sector and remains supplementary rather than decisive in investors' decision-making processes.

Second, the audit committee is found to have a positive and significant effect on firm value. This result suggests that investors place greater trust in tangible internal governance mechanisms that directly enhance oversight quality, transparency, and internal control.

Third, the interaction between ESG and the audit committee is negative and not statistically significant. This finding implies that the audit committee does not function as a direct amplifier of ESG's impact on firm value, but rather as a mechanism that increases market selectivity toward ESG information quality and credibility.

5.2 Theoretical Contributions

Theoretically, this study contributes to the ESG and corporate governance literature by extending the analysis beyond the direct ESG–firm value relationship toward a perspective that emphasizes information credibility and internal control. By conceptualizing ESG as an output of organizational information systems, this study highlights that the value relevance of ESG is contingent upon governance mechanisms that ensure data integrity and reliability.

Furthermore, this research enriches corporate governance theory by positioning the audit committee not merely as a reinforcing mechanism, but as a screening mechanism that mitigates information risk and

reputational risk. This perspective introduces a *digital-aware governance* viewpoint, which is increasingly relevant as ESG reporting becomes more dependent on digital systems, data integration, and information assurance, particularly in emerging market contexts.

5.3 Practical and Policy Implications

From a practical perspective, the findings imply that automotive companies should prioritize strengthening audit committee effectiveness and information system quality before expecting ESG initiatives to enhance firm value. ESG improvements that are not supported by robust data infrastructure and effective internal oversight are unlikely to generate significant valuation benefits in the capital market.

For regulators and capital market authorities, this study underscores the importance of developing stricter ESG reporting and assurance standards, particularly those related to data integrity, internal control, and audit committee oversight. Policies that explicitly link ESG disclosure requirements with governance quality and information system assurance may enhance ESG credibility and accelerate its internalization in market valuation processes within Indonesia.

5.4 Limitations of the Study

Despite its contributions, this study has several limitations that should be considered when interpreting the findings. First, the sample size is relatively limited and focuses exclusively on the automotive sector, which may restrict the generalizability of the results to other industries. Second, the audit committee is proxied solely by committee size, which may not fully capture qualitative aspects such as independence, expertise, and intensity of oversight. Third, ESG performance is measured using a composite score, limiting deeper insights into the distinct effects of environmental, social, and governance dimensions.

These limitations suggest that the findings should be interpreted with caution and primarily within the context of emerging markets and sector-specific governance structures.

5.5 Directions for Future Research

Future research is encouraged to expand the scope of analysis by including a broader range of industries and longer observation periods to enhance generalizability. Researchers may also employ more comprehensive governance proxies, such as audit committee independence, expertise, meeting frequency, or the existence of ESG assurance mechanisms.

In addition, future studies could disaggregate ESG into its individual dimensions and incorporate explicit measures of information system quality and ESG assurance. Such approaches would provide a more nuanced understanding of how ESG, governance, and information systems interact in shaping firm value, particularly in emerging capital markets.

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