

Article Type: Research Paper

The impact of audit committee effectiveness on the relationship between company performance and readability of disclosures: a laboratory experiment

Agus Munandar* and Kadlina



AFFILIATION:

Master of Accounting, Faculty of Economics and Business, Universitas Esa Unggul, Special Capital Region of Jakarta, Indonesia

*CORRESPONDENCE:

agus.munandar@esaunggul.ac.id

DOI: 10.18196/jai.v25i3.21884

CITATION:

Munandar, A., & Kadlina, K. (2024). The impact of audit committee effectiveness on the relationship between company performance and readability of disclosures: A laboratory experiment. *Journal of Accounting and Investment*, 25(3), 1022-1042.

ARTICLE HISTORY

Received:

17 Mar 2024

Revised:

07 May 2024 28 Jun 2024

25 Jul 2024

Accepted:

28 Aug 2024



JAI Website:



Abstract

Research aims: This paper investigated the impact of audit committees on the relationship between company performance and disclosure readiness.

Design/Methodology/Approach: Some research suggested that poorly performing companies often present their performance positively but use complex, less accessible language. This can be detrimental to market participants. The study explored the moderating role of audit committees in this relationship using a laboratory experiment. Participants, including employed students, were placed in scenarios with varying company performance and audit committee effectiveness and tasked with simulating financial disclosures.

Research findings: The findings revealed that effective audit committees enhance disclosure readability and significantly moderate the relationship between company performance and disclosure readability. High-performing companies tend to use simpler language, while poorly performing companies often employ complex language to obscure their performance.

Theoretical contribution/Originality: This research contributes to the literature by highlighting the role of audit committee effectiveness in ensuring transparent and clear financial disclosures. It extends previous findings by emphasizing different disclosure strategies based on performance and the critical role of audit committees in curbing obfuscation by underperforming firms.

Practitioner/Policy implication: The results underscored the importance of audit committee effectiveness in improving corporate governance and maintaining investor trust. Policymakers should promote audit committee independence and expertise to ensure higher standards of disclosure

Research limitation/Implication: The study's use of employed students limits generalizability to professional accountants. Nonetheless, it provides valuable insights into the influence of audit committees on disclosure readability, offering a basis for future research.

Keywords: Experimental Method; Performance; Readability

Introduction

Implementation and adherence to good corporate governance represent management's commitment to instilling confidence in the reliability of the information conveyed to the public. In Indonesia, various regulations have supported this implementation, which is evident in the inclusion of various provisions about the effectiveness of corporate governance

The impact of audit committee effectiveness on the relationship ...

mechanisms, such as audit committees, risk monitoring committees, remuneration and nomination committees, and integrated governance committees. The relevance of company financial information is crucial for business decision-making, underscoring the necessity for financial information to be presented in an easily understandable format or high readability. Numerous studies have been conducted to assess this aspect. For instance, (Davis-Friday et al., 1999) have asserted that SFAS No. 106 holds value and relevance for the decision-making process. Additionally, (Yu, 2013) provides empirical evidence indicating that the disclosure of off-balance-sheet pension debt holds greater relevance for companies with high institutional ownership.

In recent decades, there has been a growing emphasis on the readability of financial information, including financial statements and public disclosures. Regulators and researchers have increasingly focused on this aspect. Reinstein and Houston (2004) explained that the Securities Exchange Commission (SEC) mandates companies to provide financial reports that are easy to understand and accessible to stakeholders. Enhanced readability of the narratives facilitates investors' decision-making processes (Baird & Zelin, 2000).

Asay et al. (2018) employed experimental methods to examine the influence of reporting objectives and company performance on language choices regarding disclosure readability. Their research findings offer empirical support that management tends to mask poor performance by employing positive language, a passive tone, and minimizing personal pronouns. While this study provided valuable insights, it did not consider the potential moderating effects of corporate governance mechanisms, particularly the audit committee, on the relationship between firm performance and disclosure readability. Our study aims to address this gap by introducing audit committee effectiveness as a crucial moderating variable.

The readability of financial information is crucial for stakeholders' decision-making processes. Previous research indicates that management often obscures poor performance through complex language in disclosures. This phenomenon aligns with the Incomplete Revelation Theory (Bloomfield, 2002) and the Obfuscation Theory (Li, 2008), suggesting that companies intentionally complicate disclosures to mask unfavorable performance. Additionally, in Framing Theory, Kumar et al. (2022) explained that the presentation of information can significantly influence stakeholders' perceptions and decisions.

Management behavior to conceal poor performance often manifests through disclosures characterized by complex readability, aligning with the principles of the Incomplete Revelation Theory or Obfuscation theory. This strategy allows management to derive economic benefits by presenting poor performance information that is challenging for stakeholders to comprehend. Additionally, the Incomplete Revelation Theory posits that management may positively frame negative information to influence market perception. This behavior stems from the notion that negative information (bad performance) imposes a cost on the market, potentially leading to delayed or diminished response from market participants (Yun et al., 2023). Accordingly, companies experiencing subpar

The impact of audit committee effectiveness on the relationship ...

performance are inclined to deliver public disclosures with low readability levels, as indicated by a low Flesch Reading Ease by tenets of the Incomplete Revelation Theory.

The framing of poor performance information also aligns with the Framing Theory proposed by Candraningrat et al. (2018) and Kumar et al. (2022). This theory explains that presenting identical information in different ways can evoke varied physiological action preferences. Consequently, financial reports and disclosures containing identical information but presented differently can lead to divergent decision-making outcomes. Moreover, this suggests that investors may respond positively or postpone decisions concerning poorly performing companies when the information is conveyed using a positive tone and possesses challenging readability. By examining the effectiveness of the audit committee in this context, the current research explores how robust corporate governance can influence the readability of disclosures, thereby potentially altering investor responses and decision-making processes.

From a corporate governance perspective, the audit committee assumes the crucial function of overseeing and evaluating accounting policies while assessing financial reports and management statements (Alijoyo & Zaini, 2004). Consequently, the readability of information is intricately linked to the audit committee's responsibilities. Hence, ensuring the readability of disclosures to the public needs significant attention from the audit committee.

The composition and expertise of the audit committee demonstrate a positive correlation with reporting quality. Previous research indicated that the composition of audit committee members is positively related to the quality of a company's financial reports (Qinghua et al., 2006). This finding is consistent with empirical evidence suggesting that audit committee members possess strong analytical skills regarding financial reports to facilitate accountable and transparent financial reporting outcomes (Rezaee, 2004). Additionally, research by McDaniel et al. (2002) underscored that the audit committee's proficiency in accounting positively correlates with the quality of financial information. Consequently, this research aims to test the effectiveness (expertise) of the audit committee on the readability of disclosures.

The introduction of audit committee effectiveness as a moderating variable is grounded in theoretical reasoning and addresses limitations in previous research. Corporate governance literature suggests that effective audit committees play a vital role in enhancing financial reporting quality and transparency (Cohen et al., 2004; Beasley et al., 2009). By examining how audit committee effectiveness moderates the relationship between firm performance and disclosure readability, we aim to provide a more nuanced understanding of the factors influencing management's disclosure strategies. This approach allows us to explore whether strong audit committees can mitigate the tendency of poorly performing firms to obfuscate their disclosures, thus offering new insights into the interplay between corporate governance mechanisms and disclosure practices.

The impact of audit committee effectiveness on the relationship ...

Asay et al. (2018) investigated how the effectiveness of the audit committee moderates the impact of financial performance on the readability of disclosures. This approach not only builds upon previous findings but also introduces a novel perspective by examining the role of corporate governance in shaping disclosure practices. By incorporating audit committee effectiveness, we aim to provide a more comprehensive understanding of the factors influencing disclosure readability and contribute to the ongoing dialogue on corporate transparency and governance effectiveness in financial reporting.

Literature Review and Hypotheses Development

Prior research has furnished empirical evidence in the realm of corporate performance disclosure, indicating that each company exhibits distinct linguistic characteristics in its narrative public disclosure (Makhlouf et al., 2024). This section explains the theory and previous literature that underpin the argument concerning how the level of audit committee effectiveness, combined with company performance, influences the readability of the company's public disclosures.

Obfuscation Theory

Obfuscation, characterized by low levels of readability (difficulty) and high levels of readability variability, is often employed by management to manipulate stakeholders' perceptions of the company's performance (Stellner, 2022).

Management frequently builds the company's image through obfuscation mechanisms, whereby underperforming entities can cultivate a positive image to stakeholders by obscuring poor performance and concealing unfavorable news about the company (Li, 2008). This strategy aligns with the Incomplete Revelation Hypothesis (Bloomfield, 2002), which suggests that companies intentionally complicate disclosures to delay negative market reactions.

Empirical evidence supports the notion that obfuscation is a deliberate strategy. For instance, Lambertsen (2023) found that companies with poor performance exhibited lower readability in their annual reports compared to their better-performing counterparts. Additionally, Beattie et al. (2004) highlight that narrative complexity is frequently used as a tool for impression management, particularly in periods of poor financial performance. This obfuscation makes it challenging for stakeholders, including investors and analysts, to interpret a company's true financial health accurately.

The implications of Obfuscation Theory are significant for corporate governance. Effective governance mechanisms, such as audit committees, play a crucial role in counteracting management's inclination to obfuscate. By ensuring the transparency and clarity of financial disclosures, audit committees can enhance the quality of information available to stakeholders, thereby improving market efficiency and trust (Dlamini et al., 2017). The ability of audit committees to scrutinize and improve the readability of disclosures

The impact of audit committee effectiveness on the relationship ...

underscores their importance in upholding the principles of good corporate governance (Qadri et al., 2018).

In conclusion, Obfuscation Theory provides a robust framework for understanding why companies might choose to complicate their financial communications. It highlights the need for strong governance structures to mitigate the adverse effects of such strategies, ensuring that stakeholders receive clear and accurate information (Al-Htaybat, 2014). The role of the audit committee in this context is pivotal, as their effectiveness can significantly influence the transparency and readability of financial disclosures.

Framing Theory (Framing Theory)

Framing Theory posits that the presentation of information can significantly influence stakeholders' perceptions and decisions (Kumar et al., 2022). Information obfuscation is closely related to information framing, wherein performance disclosures to the public may harbor biases as they are conveyed through specific framing methods. This phenomenon proves detrimental to stakeholders, as investors or creditors may opt for incorrect investment alternatives due to poor performance presented with positive framing. Therefore, framing can be constructed as a behavioral method or process of shaping information to elicit a particular interpretation from the reader.

The framing effect is a mechanism management utilizes to frame information that influences decision-making processes. Therefore, framing can be constructed as a behavior, method, or process of shaping information to elicit a particular interpretation from the reader (audience).

Tong et al. (2014) emphasized that positive framing can lead to more favorable evaluations of a company's performance, while negative framing can have the opposite effect. This phenomenon is frequently exploited in corporate disclosures, where management may frame poor performance in a positive light to maintain investor confidence. Schrand and Walther (2000) provided empirical evidence that companies tend to use optimistic language when discussing prospects, even when current performance is lacking.

Framing Theory also intersects with Obfuscation Theory in that both involve strategic communication practices aimed at influencing stakeholders' perceptions. However, while obfuscation focuses on the complexity and readability of information, framing is concerned with the tone and perspective from which information is presented. The strategic use of framing can be particularly effective when combined with obfuscation, making it even more challenging for stakeholders to discern the true state of the company's performance (Mapuasari & Sentosa, 2016).

The implications of Framing Theory for corporate governance are profound. It underscores the importance of transparent and unbiased communication in financial reporting. Audit committees have a critical role in ensuring that financial disclosures are not only clear but also presented in an unbiased manner. It involves scrutinizing the

The impact of audit committee effectiveness on the relationship ...

language and tone used in financial reports to ensure that they accurately reflect the company's performance without undue positive or negative bias (Kostyuk et al., 2020).

Readability of Public Disclosures

The readability of financial disclosures is a critical factor in ensuring that stakeholders can accurately interpret and utilize the information presented (Fischer et al., 2021). Readability refers to the ease with which a reader can understand written text, which, in the context of financial disclosures, directly impacts stakeholders' ability to make informed decisions. Regulatory bodies such as the Securities and Exchange Commission (SEC) emphasize the importance of readability, mandating that public information should be presented understandably (Fischer et al., 2021).

Moreno and Quinn (2021) underscored the importance of readability in corporate disclosures, indicating that complex and jargon-laden reports can obscure critical information. Putri et al. (2023) further argued that high readability is essential for the transparency and efficiency of capital markets, as it enables investors to assess a company's performance and prospects accurately. Asay et al. (2018) provided empirical evidence that the readability of financial disclosures is associated with company performance, with better-performing companies producing more readable reports.

The role of audit committees in enhancing the readability of financial disclosures is crucial. Qinghua et al. (2006) highlighted that the composition and expertise of audit committee members are positively related to the quality of financial reports. Rezaee (2004) suggests that audit committees with strong analytical skills can ensure that financial disclosures are not only accurate but also clear and understandable. McDaniel et al. (2002) support this by demonstrating that audit committee expertise in accounting is correlated with higher-quality financial information.

Asay et al. (2018) found that managers are more inclined to submit public disclosures with low readability for poorly performing companies compared to well-performing companies, building on the theories of obfuscation and framing. This tendency to obscure poor performance can be attributed to the management's intention to delay or mitigate negative market reactions. Therefore, the first hypothesis is formulated as follows:

 H_1 : Managers are more inclined to submit public disclosure with low readability for poorly performing companies than those for well-performing companies.

Role of Audit Committee Expertise

The audit committee plays a pivotal role in ensuring the quality of public reporting, acting independently, and representing the board of commissioners. The composition of audit committee members is positively related to the quality of the company's financial reports (Qinghua et al., 2006). This statement is from previous research indicating that audit committee members possessing strong analytical skills regarding financial reports

The impact of audit committee effectiveness on the relationship ...

contribute to accountable and transparent financial report outcomes (Rezaee, 2004). Furthermore, research findings by McDaniel et al. (2002) demonstrated that the audit committee's expertise in accounting positively correlates with the quality of financial information.

Given the close relationship between the readability of information and the quality of the audit committee, the audit committee must instill confidence in the public information conveyed, ensuring a high level of readability (easy), as stated by Mwangi et al. (2024). This perspective is consistent with Pandiya (2010), stating that the readability of information for the public should be higher than a score of 8. Consequently, disclosing either readable or confusing information to the public is closely related to the expertise of the audit committee.

The effectiveness of the audit committee is crucial in moderating the relationship between company performance and disclosure readability. A highly effective audit committee can mitigate the obfuscation tactics employed by management, ensuring that even poorly performing companies maintain high readability in their disclosures (Mollik et al., 2020). This moderation effect is critical because it highlights the audit committee's role in upholding transparency and preventing management from manipulating disclosures to obscure poor performance. Therefore, the second hypothesis is formulated as follows:

 H_2 : Under high (low) audit committee expertise conditions, managers are inclined to submit public disclosures of high (low) readability for poorly performing companies.

Research Method

The research methodology section has been revised to incorporate detailed explanations of the instruments used for each variable, their origins, potential modifications from previous studies, and information regarding their validity and reliability. Additionally, the manipulation check procedure and results have been elaborated (Asay et al., 2018; Asare et al., 2003).

Participants

The participants in this experiment were undergraduate students, consistent with the design of Asay et al. (2018). Although these participants are not experienced managers, the decision-making behavior is assumed to remain consistent with practitioners Liyanarachchi and Milne (2005), who contended that students serve as valid substitutes for practitioners (experienced managers) because the decision-making context is straightforward and does not entail high cognitive levels. This equivalence is supported by Nahartyo (2012), who argued that most behavioral research primarily focuses on how individuals process information and make general decisions, thereby leading to comparable outcomes.

The impact of audit committee effectiveness on the relationship ...

Design and Manipulation

Based on the recommendation of Al-Okaily and Naueihed (2020), this study employed a 2x2 between-subjects design manipulating performance (good vs. poor) and audit committee effectiveness (high vs. low). Participants assumed the role of investor relations for PT Maju Sejahtera, a fictitious company, and were tasked with drafting a press release based on provided performance and audit committee information. The participants were randomly grouped into each experimental cell by shuffling the data using Excel software. Randomization was carried out so that the experimental results had a high level of internal validity (Nosek et al., 2018).

The experimental design resulted in four conditions, as outlined in the table 1. Participants were divided into groups based on the interaction of performance levels and audit committee effectiveness: K1 represents good performers with high audit committee effectiveness, K2 represents good performers with low audit committee effectiveness, K3 represents bad performers with high audit committee effectiveness, and K4 represents bad performers with low audit committee effectiveness.

Table 1 Experimental design

Daufaussan	Audit Committee Level			
Performance	High _	Low_		
Good (Good Performers)	K1	K2		
Bad (Bad Performers)	К3	K4		

Experimental Taks and Procedures

Participants reviewed performance and audit committee information before crafting a press release for PT Maju Sejahtera. The manipulation of performance was operationalized by providing information on a 10% increase or decrease in sales, while audit committee effectiveness was manipulated by varying the expertise of the committee members.

Instrument

Firm Performance

Firm performance is assessed using a set of finansial ratios and metrics sourced from prior research (Asay et al., 2018). Modifications were made to tailor these metrics to the specific context of this study, ensuring relevance and accuracy. The validity of these measures has been confirmed through extensive previous applications in similar research contexts.

Audit Committee Expertise

This variable is measured using a scale adapted from Asare et al. (2003), which evaluated the finansial literacy and experience of audit committee members. The scale has undergone minor modifications to reflect current regulatory and industry standards.

The impact of audit committee effectiveness on the relationship ...

Reliability tests, such as Cronbach's alpha, have shown high internal consistency for this scale in past studies.

Readability of Disclosures

Readability is assessed using the Flesch Reading Ease Score, a well-known and widely used measure in accounting and financial disclosure research (Liyanarachchi & Milne 2005). This instrument's validity is well-supported by literature, and it has been consistently reliable across various studies.

Pilot Test

A pilot test was conducted with a small sample of participants who met the inclusion criteria (i.e., students with coursework in finansial report analysis). The pilot aimed to ensure the clarity and comprehensibility of the experimental tasks and to fine-tune the procedures. Feedback from the pilot participants led to minor adjustments in the instructions and the format of the tasks to enhance participant understanding and engagement.

Validity and Reliability

The instruments used in this study have been rigorously validated in previous research. Performance manipulation has demonstrated effectiveness in studies by Asay et al. (2018), where it was shown to influence participants' perceptions and decisions significantly. Similarly, the audit committee manipulation has been validated by Asare et al. (2003), proving its reliability in assessing the impact of audit committee expertise on financial reporting quality. Both manipulations have undergone extensive testing, confirming their validity and reliability across multiple contexts and ensuring that they accurately measure the intended variables in this study.

Manipulation Check

Manipulation checks are critical to verify that participants perceived and experienced the experimental manipulations as intended. In this study, participants were asked specific questions after the experimental manipulation to assess their understanding and experience. The results of the manipulation check are presented in Table 2.

Table 2 Participants Who Passed The Manipulation Check and Those Who Did Not

Group	Passed	Not Passed	Total
High Performance - High Audit Committee Expertise	30	2	32
High Performance - Low Audit Committee Expertise	28	4	32
Low Performance - High Audit Committee Expertise	25	7	32
Low Performance - Low Audit Committee Expertise	26	6	32

The impact of audit committee effectiveness on the relationship ...

Readability Measurement

Narrative readability was measured using the Flesch formula. This formula was selected based on the assumption that short words and sentences indicate high readability. Collin-Thompson and Callan (2005) explained that word length is closely related to comprehension speed, and sentence length is related to the reader's memory.

The Flesch formula proxy was chosen because it captures the intent and purpose of this convenience. It has been widely used since 1948 and has become one of the readability tests in the US Department of Defense. The formula is as follows:

$$RE = 206.835 - (1.015 \text{ x ASL}) - (84.6 \text{ x ASW})$$

The Readability Ease (RE) formula evaluates text readability using three components: average sentence length (ASL) and average syllables per word (ASW). ASL represents the average number of words per sentence, calculated by dividing the total number of words by the number of sentences. ASW refers to the average syllables per word, calculated by dividing the total number of syllables by the number of words. RE scores range from 0 to 100, where 90-100 indicates easy reading, and 0-30 indicates difficult reading.

Data Analysis

Data analysis for this research used factorial analysis of variance (Factorial ANOVA). Factorial ANOVA is an analysis tool developed from one-way ANOVA that can be used for multiple factors and considers their interactions, making it possible to test the differences in the influence of performance and audit level on report readability. Factorial ANOVA is appropriate for this research because there is only one dependent variable (metric and interval) and more than one independent variable (non-metric or nominal). In addition, factorial ANOVA has advantages over other statistical tools because researchers can test mean differences simultaneously (Gudono, 2012).

Result and Discussion

This section explains the effectiveness of manipulation and hypothesis testing regarding the impact of audits and company performance on the readability of company public disclosures. For this reason, the research results are discussed in two parts: manipulation checks and hypothesis testing, which includes testing between groups (test of between subjects) and parameter estimation (estimating parameters).

Manipulation Check

Manipulation checks are crucial in experimental studies to ensure the internal validity of the research design. These checks verify that participants perceive and interpret the experimental manipulations as intended by the researchers (Hauser et al., 2018). In our study, participants were asked to identify whether the company's performance was good

The impact of audit committee effectiveness on the relationship ...

or poor, aligning with best practices in experimental economics and psychology (Cozby, 2024).

The results of our manipulation checks demonstrated a clear distinction between groups receiving different performance information, supporting the effectiveness of our manipulation. Kotzian et al. (2020) recommended that manipulation checks should show significant differences between experimental conditions.

However, it's important to note that while manipulation checks are valuable, they are not without limitations. Lonati et al. (2018) warned that manipulation checks can potentially prime participants, influencing their subsequent responses. Future research could consider using more subtle or indirect manipulation checks to mitigate this concern.

Descriptive statistics

Descriptive statistics in Table 3 explain the characteristics of the dependent variable. Based on the results of the descriptive analysis, the difference in readability level between companies performing well (68.8) and companies performing poorly (53.46) is 15.34, based on the first hypothesis, stating that managers tend to provide lower-readability public disclosures for poorly performing companies than for good-performing companies (H_1 is supported).

This readability difference is consistent with the obfuscation theory argument that managers tend to deliver disclosures using information writing that combines a low readability (complex) and a high readability variability (Demaline, 2020), used by management in order to build and maintain the company's image.

The results of these descriptive statistics explain that management with poor performance can build a good image and good performance for stakeholders using the concept of obfuscation. Li (2008) mentioned that management often uses obfuscation with low readability to cover up poor performance and hide the company's bad news.

The results of these descriptive statistics also explain that information obfuscation is closely related to the framing of information carried out by management so that performance disclosures to the public can contain bias. This practice is detrimental to stakeholder users such as investors or creditors because it will result in wrong investments. After all, poor performance is presented with a positive framing.

Table 3 Descriptive statistics

	Low Performance		Tall Performance			Total			
	N	Mean	Std.	N	Mean	Std.	N	Mean	Std.
			Deviation			Deviation			Deviaton
Audit Con	nmitte	e Expertise							
Low	15	38.000	10.836	15	68.000	11.000	30	53.000	18.651
Tall	15	68.933	7.676	15	69.600	6.566	30	69.266	7.026
Total	30	53.466	18.237	30	68.800	8.938	60	61.133	16.202

The impact of audit committee effectiveness on the relationship ...

The descriptive statistics reveal a significant difference in disclosure readability between well-performing and poorly-performing companies. This finding aligns with the obfuscation hypothesis (Demaline, 2020; Li, 2008), which posits that managers strategically use complex language to obscure poor performance. Asay et al. (2018) and Bushee et al. (2018) found that managers use more complex language in disclosures when performance is poor.

The substantial difference in readability levels between high (69.26) and low (53.00) audit committee effectiveness conditions underscores the crucial role of audit committees in enhancing disclosure quality. This finding can be interpreted through the lens of Obfuscation Theory, suggesting that less effective audit committees may contribute to more complex and less readable disclosures, possibly to obscure poor performance (An, 2023; Masanja, 2022).

Our results corroborate and extend recent studies on the relationship between corporate governance and disclosure quality. For instance, Hajek and Henriques (2017) found that firms with stronger governance mechanisms tend to have more readable annual reports. Similarly, Hasan (2020) demonstrated a positive association between audit quality and disclosure readability. Our experimental design allows us to establish a more direct causal link between audit committee effectiveness and readability.

The positive relationship between audit committee expertise and disclosure quality aligns with the principles of Framing Theory and emphasizes the importance of financial expertise. Studies by Abernathy et al. (2015) and Kusnadi et al. (2016) reinforce that audit committee financial expertise is crucial for ensuring transparent and accessible financial reporting, thereby enhancing overall corporate governance.

Furthermore, our findings contribute to the growing literature on the "linguistic complexity" of financial disclosures (Loughran & McDonald, 2016). While previous studies have largely focused on annual reports, our study extends this to press releases, an important but less studied form of disclosure.

The interaction effect between performance and audit committee effectiveness on readability is particularly noteworthy. The impact of governance mechanisms on disclosure practices may be contingent on the firm's financial situation. This finding aligns with the contingency perspective in corporate governance research (Aguilera et al., 2008), which posits that the effectiveness of governance mechanisms depends on various contextual factors.

Our results also have practical implications, supporting recent regulatory trends toward increasing the financial expertise requirements for audit committee members (e.g., SEC, 2020). The finding that readability scores should exceed 8, as suggested by Pandiya (2010), is consistent with more recent studies. For example, Ezat (2019) found that a Flesch Reading Ease score above 60 (corresponding to "standard" readability) is associated with better market reactions.

The impact of audit committee effectiveness on the relationship ...

Homogeneity testing

Table 4 provides information regarding the results of data homogeneity testing (*test of equality*). The results of the analysis show that the analysis data is homogeneous, based on a significant result greater than 5% (Sig. > 0.05). Hence, hypothesis testing can be carried out using parametric tests.

Table 4 Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
0.779	3	56	0.511

The homogeneity test results can be used to argue that hypothesis testing can be carried out using the General Linear Model (GLM), which is part of factorial analysis of variance (factorial ANOVA). The analysis tool is appropriate for this context because it was developed from one-way ANOVA, so it can be used for more than one factor and consider their interactions.

ANOVA makes it possible to test differences in the influence of performance and audit level on report readability. Factorial ANOVA is appropriate for this research because there is only one dependent variable (metric and interval) and more than one independent variable (non-metric or nominal). In addition, Gudono (2012) explains that factorial ANOVA has advantages over other statistical tools because researchers can test mean differences simultaneously.

Empirical Testing

Table 5 provides information regarding the estimation results of each variable, audit, and financial performance on the readability of disclosures. The results show that audits improve the readability of disclosures and the interaction between audit and performance. The parameter testing results are in Table 5, supporting the second hypothesis that in conditions of high (low) audit committee expertise, managers tend to submit public disclosures of high (low) readability for poorly performing companies (H_2 is supported).

In addition, the results in Table 5 also provide arguments that managers tend to submit lower-readability public disclosures for poorly performing companies than for well-performing companies.

The between-group differences central to this research are presented in Table 5. The ANOVA results reveal a significant influence of performance on disclosure readability (Sig. < 0.05), consistent with the descriptive statistics showing a marked difference in average readability scores between good (Flesch Index = 68.80) and poor (Flesch Index = 53.46) performance (See Table 3.). Therefore, managers tend to produce less readable disclosures for poorly performing companies.

The impact of audit committee effectiveness on the relationship ...

Table 5 Test of Parameter Estimates

Parameter	В	Std. Error	t	Sig.
Intercept	69.600	2.382	29.218	0.000
Auditing	1.600	3.369	0.475	0.637
Performance	-0.667	3.369	0.198	0.844
Audit* Performance	29.333	4.764	6.157	0.000

These findings align with the theoretical framework of impression management in corporate reporting (Merkl-Davies & Brennan, 2007). Managers engage in impression management tactics, such as using complex language, to influence stakeholders' perceptions of firm performance. Asay et al. (2018) and Bushee et al. (2018) found that managers use more complex language in disclosures when performance is poor.

Moreover, our findings contribute to the growing literature on the "linguistic complexity" of financial disclosures (Loughran & McDonald, 2016). While Healy and Palepu (2001) established the importance of disclosure quality, recent studies have focused more specifically on readability. For instance, Lo et al. (2017) found that firms with better performance tend to have more readable annual reports, consistent with our results.

The second hypothesis, positing that managers in high (low) audit conditions tend to produce high (low) readability disclosures, is supported by our analysis (Sig. < 0.05). Audit committee effectiveness significantly influences disclosure readability, particularly for well-performing companies.

These results can be interpreted through the lens of agency theory (Jensen & Meckling, 1976). Effective audit committees can mitigate agency conflicts by promoting more transparent disclosure practices as monitoring mechanisms. Hasan (2020) demonstrated a positive association between audit quality and disclosure readability in 10-K reports.

Furthermore, our results align with and expand upon studies on the relationship between audit committee characteristics and financial reporting quality. While McDaniel et al. (2002) and Qinghua et al. (2006) established the positive relationship between audit committee expertise and financial reporting quality, more recent work has delved deeper into this relationship. For example, Kusnadi et al. (2016) found that audit committee financial expertise is associated with higher financial reporting quality in Singapore-listed firms. Additionally, Abernathy et al. (2015) demonstrated that the presence of accounting experts on audit committees is associated with more timely financial reporting. Our study extends these findings by specifically linking audit committee effectiveness to disclosure readability.

The interaction effect between performance and audit committee effectiveness on readability is particularly noteworthy. It suggests that the impact of governance mechanisms on disclosure practices may be contingent on the firm's financial situation. This finding aligns with the contingency perspective in corporate governance research (Aguilera et al., 2008), which posits that the effectiveness of governance mechanisms depends on various contextual factors. They underscore the importance of considering

The impact of audit committee effectiveness on the relationship ...

both financial performance and governance mechanisms in understanding corporate disclosure practices.

Table 6 Tests of Between-Subjects Effects

Table 6 Tests of Between Subjects Effects						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	
Corrected Model	10722,400°	3	3574.133	41.991	0.000	
Intercept	224237.067	1	224237.067	2.634	0.000	
Auditing	3969.067	1	3969.067	46.631	0.000	
Performance	3526.667	1	3526.667	41.433	0.000	
Performance*Audit	3226.667	1	3226.667	37.909	0.000	
Error	4766.533	56	85.117			
Total	239726.000	60				
Corrected Total	15488.933	59				

Note: aR Squared = 0.692 (Adjusted R Squared = 0.676)

The ANOVA results support this hypothesis, as evidenced by the significant interaction effect between performance and audit committee effectiveness (Sig. = 0.000, p < 0.05). This interaction suggests that audit committee effectiveness moderates the relationship between firm performance and disclosure readability.

This finding can be interpreted through the lens of agency theory (Jensen & Meckling, 1976) and the resource dependence theory (Pfeffer & Salancik, 1978). From an agency perspective, effective audit committees serve as a monitoring mechanism that can mitigate the agency problem of information asymmetry between managers and shareholders. In the context of poor performance, where managers might have incentives to obfuscate information, highly effective audit committees appear to constrain such behavior, leading to more readable disclosures.

The resource dependence theory provides additional insights into this interaction effect. Audit committee members, especially those with financial expertise, bring valuable resources to the firm in terms of knowledge and skills. Recent research by Abernathy et al. (2015) and Kusnadi et al. (2016) has shown that audit committee financial expertise is associated with higher financial reporting quality. Our findings extend this line of research by demonstrating that such expertise can also influence the linguistic characteristics of disclosures, particularly in the context of poor performance.

The moderating role of audit committee effectiveness aligns with the contingency perspective in corporate governance research (Aguilera et al., 2008). This perspective suggests that the effectiveness of governance mechanisms may depend on various contextual factors, including firm performance. The impact of audit committee effectiveness on disclosure readability is particularly pronounced when firm performance is poor.

These findings contribute to the growing literature on the "linguistic complexity" of financial disclosures (Loughran & McDonald, 2016). While previous studies have largely focused on the direct effects of firm characteristics or governance mechanisms on readability, our study highlights the importance of considering their interactive effects.

The impact of audit committee effectiveness on the relationship ...

Similarly, Hasan (2020) found that the relationship between managerial ability and disclosure readability is moderated by corporate governance quality.

Conclusion

The readability of financial statements and public disclosures has garnered significant attention, particularly in alignment with regulatory mandates such as those of the SEC, which emphasize clear and understandable financial reporting. This study enriches the existing literature by investigating the interplay between financial performance and audit committee effectiveness on the readability of corporate disclosures.

Our findings confirmed that both financial performance and audit committee effectiveness are critical factors influencing disclosure readability research (Asay et al., 2018). Notably, we extend prior research by revealing that audit committee effectiveness moderates the relationship between financial performance and disclosure readability, providing fresh insights into corporate communication strategies. These results highlighted the importance of governance mechanisms in enhancing the transparency of financial reporting.

The study's implications are twofold: Practically, it underscores the necessity for organizations to strengthen their audit committees to ensure clear and accessible financial communications. Theoretically, it contributes to the understanding of Obfuscation Theory and Framing Theory by illustrating how governance structures and strategic communication impact stakeholder perceptions.

However, this study is not without limitations. The use of student participants may limit the generalizability of the findings to professional settings, and the focus on press releases may not fully capture the breadth of corporate disclosures. Moreover, while the Flesch Index is a robust tool for assessing readability, it may not account for all aspects of linguistic complexity.

Future research should explore these relationships longitudinally to uncover dynamic patterns over time. Additionally, expanding the scope to include a cross-cultural analysis could offer valuable insights into how disclosure readability and governance effectiveness vary across different regulatory environments.

References

Abernathy, J. L., Beyer, B., Masli, A., & Stefaniak, C. (2015). The association between characteristics of audit committee accounting experts, audit committee chairs, and financial reporting timeliness. Advances in Accounting, 30(2), 283-297. https://doi.org/10.1016/j.adiac.2014.09.001

Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and

The impact of audit committee effectiveness on the relationship ...

- complementarities. Organization Science, 19(3), 475-492. https://doi.org/10.1287/orsc.1070.0322
- Al-Htaybat, K. A. (2014). Codification Theory is a Gateway for Setting Mandatory Reporting Requirements in Emerging Economies. *International Journal of Economics and Finance*, 6(11), 21–35. https://doi.org/10.5539/ijef.v6n11p21
- Al-Okaily, J., & Naueihed, S. (2020). Audit committee effectiveness and family firms: impact on performance. *Management Decision*, 58(6), 1021-1034. https://doi.org/10.1108/MD-04-2018-0422
- Alijoyo A, & Zaini S. (2004). Komisaris Independen: Penggerak Praktik GCG di Perusahaan. PT. Gramedia.
- An, Y. (2023). Does Quality of Audit Committee Enhance Audit Quality? *International Journal of Professional Business Review*, 8(2), 1–16.
- Asare, S. K., Davidson, R. A., & Gramling, A. A. (2003). The Effect of Management Incentives and Audit Committee Quality on Internal Auditors' Planning Assessments and Decisions. https://doi.org/10.2139/ssrn.403240
- Asay, H. S., Libby, R., & Rennekamp, K. (2018). Firm performance, reporting goals, and language choices in narrative disclosures. *Journal of Accounting and Economics*, 65(2-3), 380-398. https://doi.org/10.1016/j.jacceco.2018.02.002
- Baird, J. E., & Zelin, R. C. (2000). The Effects of Information Ordering on Investor Perceptions: an Experiment utilizing President's Letters. *Journal of Financial and Strategic Decisions*, 71–80.
- Beasley, M. S., Carcello, J. V., Hermanson, D. R., & Neal, T. L. (2009). The Audit Committee Oversight Process. *Contemporary Accounting Research*, 26(1), 65-122. https://doi.org/10.1506/car.26.1.3
- Beattie, V., McInnes, B., & Fearnley, S. (2004). A methodology for analyzing and evaluating narratives in annual reports: A comprehensive descriptive profile and metrics for disclosure quality attributes. *Accounting Forum*, 28(3), 205-236. https://doi.org/10.1016/j.accfor.2004.07.001
- Bloomfield, R. (2002). The "Incomplete Revelation Hypothesis" and Financial Reporting. *Conference on Experimental Methods*, 16(3), 233–243. https://doi.org/10.2308/acch.2002.16.3.233
- Bushee, B. J., Gow, I. D., & Taylor, D. J. (2018). Linguistic Complexity in Firm Disclosures: Obfuscation or Information?. *Journal of Accounting Research*, 56(1), 85–121. https://doi.org/10.1111/1475-679X.12179
- Candraningrat, I. R., Salim, U., Indrawati, N. K., & Ratnawati, K. (2018). Influence of Framing Information and Disposition Effect in Decision of Investment: Experimental Study on Investor Behavior at Indonesia Stock Exchange Representative on Denpasar, Bali. *International Review of Management and Marketing*, 8(3), 59–68.
- Cohen, J., Krishnamoorthy, G., & Wright, A. (2004). The Corporate Governance Mosaic and Financial Reporting Quality. *Journal of Accounting Literature*, 87–152.
- Collins-Thompson, K. and Callan, J. (2005). Predicting reading difficulty with statistical language models. *Journal of the American Society for Information Acience and Technology*, 56(13):1448–1462. https://doi.org/10.1002/asi.20243
- Cozby, P. C. (2024). Methods in behavioral research 15th ed. McGraw Hill LLC.
- Davis-Friday, P. Y., Folami, L. B., Liu, C. S., & Mittelstaedt, H. F. (1999). The value relevance of financial statement recognition vs. disclosure: Evidence from SFAS No. 106. *The Accounting Review*, 74(4), 403-423. https://doi.org/10.2308/accr.1999.74.4.403

The impact of audit committee effectiveness on the relationship ...

- Demaline, C. (2020). Disclosure readability of firms investigated for books-and-records infractions. *Journal of Financial Reporting and Accounting*, 18(1), 131–145. https://doi.org/10.1108/JFRA-10-2018-0094
- Dlamini, Z. V., Mutambara, E., & Assensoh-Kodua, A. (2017). An investigation into the effectiveness of audit committees. *Corporate Board role duties and composition*, 13(2), 46–54. http://doi.org/10.22495/cbv13i2art5
- Ezat, A. N. (2019). The impact of earnings quality on the association between readability and cost of capital. *Journal of Accounting in Emerging Economies*, 9(3), 366-385. https://doi.org/10.1108/JAEE-12-2018-0136
- Fischer, A. E., Venter, W. D. F., Collins, S., Carman, M., & Lalla-Edward, S. T. (2021). The readability of informed consent forms for research studies conducted in South Africa. *South African Medical Journal*, 111(2), 180–183. https://doi.org/10.7196/SAMJ.2021.v111i2.14752
- Gudono. (2012). Analisis Data Multivariat. BPFE UGM.
- Hajek, P., & Henriques, R. (2017). Mining corporate annual reports for intelligent detection of financial statement fraud A comparative study of machine learning methods. *Knowledge-Based Systems*, 128, 139-152. https://doi.org/10.1016/j.knosys.2017.05.001
- Hasan, M. M. (2020). Readability of narrative disclosures in 10-K reports: Does managerial ability matter?. *European Accounting Review*, 29(1), 147-168. https://doi.org/10.1080/09638180.2018.1528169
- Hauser, D. J., Ellsworth, P. C., & Gonzalez, R. (2018). Are manipulation checks necessary? *Frontiers in Psychology*, 9(6), 1–10. https://doi.org/10.3389/fpsyg.2018.00998
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of accounting and economics*, 31(1-3), 405-440. https://doi.org/10.1016/S0165-4101(01)00018-0
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/https://doi.org/10.1016/0304-405X(76)90026-X
- Kostyuk, A., Guedes, M. J. C., & Govorun, D. (2020). Corporate Governance: Examining Key Challenges and Perspectives. *International Online Conference*, 134–145. https://doi.org/10.22495/cgekcp
- Kotzian, P., Stoeber, T., Hoos, F., & Weissenberger, B. E. (2020). To be or not to be in the sample? On using manipulation checks in experimental accounting research. *Accounting Research Journal*, 33(3), 469–482. https://doi.org/10.1108/ARJ-06-2019-0128
- Kumar, S., Rao, S., Goyal, K., & Goyal, N. (2022). Journal of Behavioral and Experimental Finance: A bibliometric overview. *Journal of Behavioral and Experimental Finance*, 34, 100652. https://doi.org/10.1016/j.jbef.2022.100652
- Kusnadi, Y., Leong, K. S., Suwardy, T., & Wang, J. (2016). Audit committees and financial reporting quality in Singapore. *Journal of Business Ethics*, 139(1), 197-214. https://doi.org/10.1007/s10551-015-2679-0
- Lambertsen, N. N. (2024). Manipulation and obfuscation of financial reports. *Journal of Business Finance & Accounting*, 51(1-2), 276-296. https://doi.org/10.1111/jbfa.12693
- Li, F. (2008). Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and economics*, 45(2-3), 221-247. https://doi.org/10.1016/j.jacceco.2008.02.003
- Liyanarachchi, G., & Milne, M. (2005). Comparing the Investment Decisions of Accounting Practitioners and Students: An Empirical Study on the Adequacy of Student Surrogates. *Accounting Forum*, *29*, 121–135. https://doi.org/10.1016/j.accfor.2004.05.001

The impact of audit committee effectiveness on the relationship ...

- Lo, K., Ramos, F., & Rogo, R. (2017). Earnings management and annual report readability. *Journal of Accounting and Economics*, 63(1), 1-25. https://doi.org/10.1016/j.jacceco.2016.09.002
- Lonati, S., Quiroga, B., Zehnder, C., & Antonakis, J. (2018). On doing relevant and rigorous experiments: Review and recommendations. *Journal of Operations Management*, 64(1), 19–40. https://doi.org/10.1016/j.jom.2018.10.003
- Loughran, T., & McDonald, B. (2016). Textual analysis in accounting and finance: A survey. *Journal of Accounting Research*, 54(4), 1187-1230. https://doi.org/10.1111/1475-679X.12123
- Makhlouf, M. H., Qatawneh, A., & Safi, W. (2024). Narrative disclosure and earnings quality: what is the nexus? Evidence from emerging countries. *Journal of Economic and Administrative Sciences*. https://doi.org/10.1108/JEAS-11-2023-0323
- Mapuasari, S. A., & Sentosa, C. (2016). An Experiment on Fraudulent Reporting: Internal Control versus Framing, Which One More Influencing? Research Journal of Finance and Accounting www.iiste.org ISSN, 7(12), 1–8.

 https://iiste.org/Journals/index.php/RJFA/article/view/31506
- Masanja, C. R. (2022). Audit Committee and Internal Control Effectiveness in Public Sector Entities. *Business Management Review*, 25(2), 19–37. https://doi.org/10.56279/bmrj.v25i2.2
- McDaniel, L., R.D. Martin, & L.A. Maines. (2002). Evaluating Financial Reporting Quality: The Effects of Financial Expertise vs Financial Literacy. *The Accounting Review, Supplement: Quality of Earnings Conference*, 77, 139–167. https://doi.org/10.2308/accr.2002.77.s-1.139
- Merkl-Davies, D. M., & Brennan, N. M. (2007). Discretionary disclosure strategies in corporate narratives: Incremental information or impression management?. *Journal of Accounting Literature*, 26, 116-194.
- Mollik, A. T., Mciver, R., Mir, M., & Bepari, md. K. (2020). Effects of Audit Quality and Audit Committee Characteristics on Earnings Management During the Global Financial Crisis – Evidence from Australia. Australasian Accounting, Business and Finance Journal Volume, 14(4), 85–115. https://doi.org/10.14453/aabfj.v14i4.6
- Moreno, A., & Quinn, M. (2021). The Impact of Socioemotional Wealth on Corporate Reporting Readability in a Multinational Family-Controlled Firm. *Spanish Accounting Review*, 26(2), 229–240. https://doi.org/10.2139/ssrn.3918887
- Mwangi, B. W., Koske, N., & Bonuke, R. (2024). Moderating Role of Audit Committee Effectiveness on the Relationship between Board Gender Characteristic and Quality If Integrated Reporting Among Firms Listed In Nse. *Journal of Economics, Finance and Management Studies*, 07(03), 1638–1646. https://doi.org/10.47191/jefms/v7-i3-26
- Nahartyo, E. (2012). Desain dan Impelementasi Riset Eksperimen. UPP STIM YKPN.
- Nosek, B. A., Ebersole, C. R., DeHaven, A. C., & Mellor, D. T. (2018). The preregistration revolution. *Proceedings of the National Academy of Sciences*, 115(11), 2600-2606. https://doi.org/10.1073/pnas.1708274114
- Pandiya, A. (2010). Readability and comprehensibility of informed consent forms for clinical trials. *Perspectives in Clinical Research*, 1(3), 98.
- Pfeffer, J., & Salancik, G.R. 1978. The External Control of Organization: A Resource Dependence Prespective. New York: Harper & Row.
- Putri, A. N., Onggo, J., & Andrian, T. (2023). Does Readability Annual Report, External Pressure, and Social Responsibility Disclosure Affect Carbon Emission Disclosure? *E3S Web of Conferences*, *388*(03013), 1–10. https://doi.org/10.1051/e3sconf/202338803013

The impact of audit committee effectiveness on the relationship ...

- Qadri, S. U., Chengang, Y., Jamil, M. F., & Qadri, S. (2018). Corporate Governance and Disclosure Quality: Evidence from the Listed Non-Financial Firms of Pakistan. *International Journal of Managerial Studies and Research*, *6*(11), 116–127. https://doi.org/10.20431/2349-0349.0611012
- Qinghua, W., Pingxin, W., & Junming, Y. (2006). Audit Committee, Board Characteristics and Quality of Financial Reporting: An Empirical Research on Chinese Securities Marke. *Guangli Pinglun Business Review*, 49–56.
- Reinstein, A., & Houston, M. (2004). Using the securities and exchange commission's "plain English" guidelines to improve accounting students' writing skills. *Journal of Accounting Education*, 22(1), 53-67. https://doi.org/10.1016/j.jaccedu.2003.11.001
- Rezaee, Z. (2004). Corporate Governance Role in Financial Reporting. Research in Accounting Regulation, 17, 107–149. https://doi.org/10.1016/S1052-0457(04)17006-9
- Schrand, C. M., & Walther, B. R. (2000). Strategic Benchmarks in Earnings Announcements: The Selective Disclosure of Prior-Period Earnings Components. *The Accounting Review*, 75(2), 151-177. https://doi.org/10.2308/accr.2000.75.2.151
- SEC. (2020). Modernization of Regulation S-K Items 101, 103, and 105. Securities and Exchange Commission.
- Stellner, B. (2022). Readability of annual reports on the Vienna stock exchange: A test of management obfuscation hypothesis. *Central European Business Review*, 11(5), 49-66. https://doi.org/10.18267/j.cebr.307
- Tong, H., Wang, Y., Tan, H., Wang, E. Y., & Zhou, B. (2014). When the use of positive language backfires: The joint effect of tone, readability, and investor sophistication on earnings judgments When the Use of Positive Language Backfires: Sophistication on Earnings Judgments. *Journal of Accounting Research*, 52(1), 273–302. https://doi.org/10.1111/1475-679X.12039
- Yu, K. (2013). Does Recognition versus Disclosure Affect Value Relevance? Evidence from Pension Accounting. *The Accounting Review: May*, 88(3), 1095–1127. https://doi.org/10.2308/accr-50381
- Yun, F., Lan, T., & Chen, Y. (2023). Cover-up or true? does CSR disclosure really contribute to corporate environmental performance?. Frontiers in Environmental Science, 11, 1139088. https://doi.org/10.3389/fenvs.2023.1139088

About the Authors

Agus Munandar (A.M.) is a Associate Professor in the Master of Accounting Program, Faculty of Economics and Business, Universitas Esa Unggul, Jakarta, Indonesia. Email: agus.munandar@esaunggul.ac.id

Kadlina (K.K) is a student of the Master of Accounting Program, Faculty of Economics and Business, Universitas Esa Unggul, Jakarta, Indonesia.

Email: kadlina02@gmail.com

Author Contributions

Conceptualisation, A.M.; Methodology, A.M.; Investigation, A.M.; Analysis, A.M and K.K.; Original draft preparation, A.M; Review and editing, A.M. and K.K; Supervision, A.M.

The impact of audit committee effectiveness on the relationship ...

Conflicts of Interest

The authors declare no conflict of interest. The funders had no role in the design of the study, in the collection, analyses, or interpretation of data, in the writing of the manuscript, or in the decision to publish the results.



© 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC-BY-NC-ND 4.0) license (http://creativecommons.org/licenses/by/4.0/).