

When CEOs Shape Audits: Leadership Power Behind Key Audit Matters

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Abstract

This study investigates the impact of CEO characteristics on Key Audit Matter (KAM) disclosure in Indonesian publicly traded companies in response to increasing regulatory demands for audit transparency. Based on agency theory and upper echelon theory, this study examines whether CEO gender, family affiliation, financial expertise, tenure, and narcissism influence the extent of KAM disclosure. This study applies a quantitative approach by analysing panel data from 555 non-financial companies listed on the Indonesia Stock Exchange during 2022–2023, resulting in 1,110 firm-year observations. Data were obtained from annual reports and independent auditor reports and analysed using panel data regression with a Random Effect Model. The findings show that CEO tenure and CEO narcissism positively and significantly influence KAM disclosure, while CEO gender, family affiliation, and financial expertise show no significant effect. These results indicate that KAM disclosure is influenced not only by firm-level factors but also by individual CEO traits. Practically, the findings suggest that auditors and regulators should consider executive experience and behavioural traits when evaluating audit transparency and the effectiveness of KAM disclosure. This study contributes to the audit literature by applying upper echelon theory to KAM disclosure and incorporating CEO psychological characteristics in an emerging market context.



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INTRODUCTION

Financial statement audits are designed to provide stakeholders with assurance concerning the fair presentation of financial information. However, the increasing complexity of transactions and heightened economic uncertainty have complicated the ability of financial statement users to identify the most significant and high-risk areas addressed during the audit process. Responding to increasing calls for enhanced audit transparency, the International Auditing and Assurance Standards Board (IAASB) implemented Key Audit Matters (KAM)

via International Standard on Auditing (ISA) 701 in 2015. This standard mandates that auditors communicate matters necessitating significant professional judgement during the financial statement audit process (IAASB, 2015; Reid et al., 2019; Wuttichindanon & Issarawornrawanich, 2020). Indonesia implemented this requirement through Auditing Standard (SA) 701, which became effective for audits commencing on or after January 1, 2022 (IAPI, 2022).

Key Audit Matters (KAM) are a critical element of the independent auditor's report, highlighting areas of elevated evaluated risk, substantial transactions, major accounting estimates, and audit domains necessitating extensive professional judgement (Pinto & Morais, 2019). The disclosure of KAM, known as Key Audit Matters or Hal Audit Utama (HAU) in Indonesia, aims to augment the informative value of audit reports by conveying the auditor's principal emphasis areas throughout the audit. In Indonesia, the enforcement of SA 701 has been bolstered by Financial Services Authority Regulation (POJK) No. 30 of 2023, which requires public accountants to disclose HAU in the audit reports of capital market organisations. This legislation emphasises the significance of audit transparency and is anticipated to enhance investor confidence in audited financial statements (IAPI, 2023).

Preliminary empirical evidence about the execution of SA 701 in Indonesia reveals significant discrepancies in KAM disclosure methods. A joint study by IAPI and OJK analysing 813 independent auditor reports of companies listed on the Indonesia Stock Exchange (IDX) for the 2022 fiscal year reveals that the number of Key Audit Matters (KAM) disclosed varies from zero to six, with the majority of reports presenting a single KAM and an average of 1.3 KAM per report (IAPI, 2023). The predominant Key Audit Matter (KAM) themes are projected credit losses, revenue recognition, inventories, and property, plant, and equipment, collectively representing approximately 90 percent of all identified KAM. Despite the seemingly uniform nature of KAM disclosure across industries, variations in the average quantity of KAM indicate that specific sectors, such as infrastructure, have elevated levels of disclosure (IAPI, 2023).

Current research on Key Audit Matters (KAM) disclosure has largely examined firm-level, audit-level, and governance-level determinants. Prior studies show that KAM disclosure is influenced by corporate governance attributes, audit committee characteristics, audit firm type, auditor specialization, auditor gender, audit firm size, audit fees, leverage, firm complexity, and litigation risk (Velte, 2018); Wuttichindanon & Issarawornrawanich, 2020; Suttipun, 2020; Jiang & Olesen, 2024; Alduneibat, 2024). These studies have provided important evidence on how institutional, audit, and governance mechanisms shape KAM disclosure. However, they have paid relatively limited attention to the role of top executives, particularly the Chief Executive Officer (CEO), in influencing audit reporting outcomes.

In the Indonesian context, empirical research on KAM disclosure remains limited. Existing studies have mainly focused on audit-related determinants. For example, Sania & Ali (2024) examine KAM disclosure in Indonesia by emphasizing audit fees and audit firm size as key explanatory factors. While this study provides valuable evidence on the audit-side determinants of KAM disclosure, it does not examine whether characteristics of top management influence the extent of KAM reported by auditors. This leaves an important gap because KAM disclosure is not only related to auditor characteristics but also to the financial reporting environment created by management.

This study focuses on CEO characteristics because CEOs play a central role in shaping corporate strategy, risk-taking behaviour, internal control priorities, financial reporting practices, and the tone of communication with external auditors. Although auditors are responsible for identifying and communicating KAM under SA 701, the matters disclosed as KAM often arise from areas involving significant management judgment, accounting estimates, business risk, and auditor–client discussion. Therefore, CEO characteristics may

indirectly influence KAM disclosure by affecting the firm's risk profile, reporting quality, management transparency, and auditors' assessment of significant audit risks.

Despite the growing body of research on the determinants of Key Audit Matters (KAM) disclosure, prior studies have predominantly focused on firm-level and audit-level factors, such as audit fees, audit firm size, board characteristics, ownership structure, financial risk, and firm complexity (Wuttichindanon & Issarawornrawanich, 2020; Suttipun, 2020). However, limited attention has been given to how executive-level characteristics, particularly those of the Chief Executive Officer (CEO), may influence the extent of KAM disclosure in independent auditor's reports. This gap is important because CEOs play a central role in shaping corporate strategy, financial reporting practices, risk-taking behaviour, and the quality of information provided to auditors. Therefore, CEO characteristics may indirectly affect the complexity, transparency, and risk profile of the audit process, which can ultimately influence the number of KAMs disclosed.

Accordingly, this study addresses the research gap by investigating the effect of CEO characteristics on the quantity of Key Audit Matters disclosed in the independent auditor's reports of Indonesian non-financial companies. Specifically, this study examines CEO gender, family affiliation, financial expertise, tenure, and narcissism. By applying Upper Echelons Theory to the audit reporting context, this study extends the KAM literature by shifting the focus from audit-side and governance-side determinants to executive-level characteristics. The findings are expected to provide practical insights for auditors, regulators, and investors in evaluating audit transparency and the implementation of SA 701 in Indonesia.

LITERATURE REVIEW AND HYPOTHESIS

Agency Theory

This study is based on agency theory, which explains agency costs caused by conflicts of interest and information asymmetry between business management and shareholders (Jensen & Meckling, 1976). Such imbalance can affect business efficiency, especially in emerging markets where audit operations are critical in resolving agency issues. Auditors are considered as independent monitors in this paradigm, accountable for reporting managerial actions to shareholders (Jensen & Meckling, 1976). The disclosure of Key Audit Matters (KAM) acts as an additional monitoring mechanism, communicating areas of important audit judgement and management-related risks alongside the audit opinion. While previous research on risk disclosure has primarily focused on voluntary disclosures by management, some studies have looked into mandatory risk disclosures under national accounting standards (Khandelwal et al., 2020). To improve financial reporting transparency, independent auditor reports must now include required KAM disclosure. However, empirical research on KAM disclosure is scarce and has mostly focused on its drivers and effects in enterprises operating in industrialised nations (Wei et al., 2018).

Upper Echelon Theory

Recent studies examining the impact of senior management on organisational strategy and performance are predominantly based on upper echelon theory, originally formulated by Hambrick & Mason (1984). According to this theory, the attributes of the CEO are instrumental in elucidating managerial conduct and organisational results. However, a significant portion of the existing upper echelon literature has concentrated predominantly on observable demographic characteristics, while largely neglecting CEO personality traits that influence managerial conduct. The psychological mechanisms connecting CEO personality to strategic influence and organisational performance thus remain inadequately examined (Chatterjee & Hambrick, 2007). Therefore, it is essential to expand upper echelon research to include the domain of CEO personality. Previous research on CEO behavioural

characteristics indicates that psychological biases, including narcissism, significantly influence the formulation of corporate strategic decisions (Hirshleifer et al., 2012). Furthermore, the upper echelon theory literature suggests that CEO characteristics are linked to various organisational processes and outcomes, including corporate voluntary disclosure practices (Bamber & Wang, 2010).

KAM and CEO Characteristics

In globally integrated financial markets, users of financial statements increasingly expect audit reports to be more informative due to their critical role in investment decision-making. In response, standard-setting bodies such as the IAASB and PCAOB have introduced enhanced audit reporting requirements, including the disclosure of Key Audit Matters (KAM), for which auditors bear full responsibility in identifying the most significant audit issues (Carver & Muriel, 2025). Early studies on Key Audit Matters (KAM) primarily focused on conceptual and normative development of enhanced audit reporting, but empirical evidence—especially robust cross-country archival studies—has only increasingly emerged in recent years and remains concentrated in developed capital markets where audit report reforms like ISA 701 were first implemented (Elmarzouky et al., 2022).

Prior research identifies governance and firm-specific determinants of KAM disclosure. Velte (2018) finds that audit committee characteristics—such as female representation and financial expertise—positively influence KAM understanding in the UK. In emerging markets, Wuttichindanon & Issarawornrawanich (2020) show that independent directors, auditor litigation risk, profitability, firm complexity, and industry classification significantly affect KAM disclosure, while Suttipun (2020) reports positive associations with audit fees and auditor type in Thailand. Velte (2018) further argues that cross-country differences in governance mechanisms lead to variations in KAM disclosure.

Addressing this gap, the present study examines KAM disclosure in Indonesia by integrating established governance and firm characteristics with CEO-specific attributes. Given Indonesia's emerging market context, characterized by family ownership, weak governance, and political connections, this study provides novel insights into the determinants of KAM disclosure.

Hypothesis Development

The Impact of Female CEO Presence on Key Audit Matter (KAM) Disclosure

According to the Upper Echelons Theory, the strategic decisions and organizational outcomes, such as reporting and disclosure practices, are influenced by the characteristics of upper management, including gender. Within this framework, it is anticipated that the inclusion of a female CEO will improve corporate transparency. This expectation is consistently supported by prior empirical evidence. Francoeur et al. (2022) discover that organizations managed by female CEOs publish earnings forecasts that are more frequent and of higher quality, suggesting a more proactive and cautious approach to disclosure. AlJanadi (2025) establishes a substantial positive correlation between the quality and quantity of financial and non-financial disclosure and female representation in 189 studies conducted across 39 countries. This meta-analysis is conducted at the aggregate level. Alkhawaja et al. (2023) demonstrate that gender-diverse boards significantly improve ESG disclosure, particularly in weak information environments, and Centinaio (2024) corroborates these findings by reporting that board gender diversity is consistently associated with improved CSR and ESG disclosure.

The literature suggests that female CEOs may foster greater audit transparency by fostering a more open reporting culture and fostering closer engagement with auditors, as Key Audit Matters (KAM) represent high-quality audit disclosures related to significant risks

and professional judgment. In accordance with this perspective, He & Rivai (2025) demonstrate that gender diversity influences the number and duration of KAM disclosed, whereas Abdelfattah et al. (2021) discover that female auditors are inclined to provide more comprehensive audit disclosures. In addition, Rahaman & Karim (2023) and Elmarzouky et al. (2022) have verified that the quantity, breadth, and readability of KAM are substantially influenced by gender-related board characteristics. This study therefore postulates a positive correlation between the quality and extent of KAM disclosure and the presence of female CEOs.

H1: The presence of a female CEO has a positive effect on KAM disclosure.

The Impact of Family CEO on the Disclosure of Key Audit Matters (KAM)

Corporate transparency, including audit-related disclosures such as Key Audit Matters (KAM), may be influenced by the presence of a family CEO in family-controlled firms. The alignment of ownership and management within families can mitigate Type I agency conflicts from an agency theory perspective; however, it may exacerbate Type II agency conflicts between minority shareholders and controlling family shareholders. This condition may affect the extent of KAM disclosure and the independence of auditors, which is intended to improve audit transparency, and grant families greater discretion over information disclosure.

This perspective is substantiated by empirical evidence. Rahaman & Karim (2023) demonstrate that KAM disclosure is significantly influenced by board characteristics and auditor relationships. They discover that firms led by family CEOs, notably those with long-term auditor relationships, disclose fewer KAMs. According to Manzi et al. (2024), family firms are generally more hesitant to implement non-financial disclosures as a result of reputational concerns and a long-term perspective. In the same vein, Susanto et al. (2024) discover that the impact of family on the quality of reporting is ambivalent. Family firms strive to mitigate external scrutiny by balancing conservative reporting with reduced transparency. Boonlert-u-thai & Suttipun (2023) further demonstrate that KAM disclosure is influenced by internal corporate dynamics and management–auditor relationships. This suggests that auditors' propensity to disclose sensitive audit issues may be restricted by their close personal ties within family firms. In general, this literature implies that family CEOs may prioritize family reputation and information control, which could potentially affect auditors' assessments of the extent of KAM disclosure.

H2: Family CEO presence affects KAM disclosure.

The Impact of CEO Financial Expertise on the Disclosure of Key Audit Matters (KAM)

The financial expertise of the CEO is a critical factor that may impact the reporting and disclosure practices of a company. According to Upper Echelons Theory Hambrick & Mason (1984), the educational background and professional experience of executives influence organizational policies, including transparency. It is anticipated that CEOs who possess financial or accounting expertise will possess a more comprehensive understanding of the repercussions of inadequate disclosure, financial statement integrity, and reporting risk. Existing evidence indicates a robust correlation between financial expertise and the quality of reporting, despite the fact that previous studies have not explicitly investigated the impact of CEO financial expertise on Key Audit Matter (KAM) disclosure.

Nguyen et al. (2025) discover that CEOs who possess financial expertise substantially improve the quality of earnings and reporting. Ngo & Nguyen (2022) establish a positive correlation between the quality of financial reporting and the financial specialization of CEOs. Alrobai & Albaz (2025) demonstrate that CEO technical expertise enhances the quality of ESG disclosures, which extends beyond financial reporting and suggests broader implications

for transparency. Rossignoli et al. (2025) also finds that financially expert CEOs play a significant role in complex accounting judgments, such as purchase price allocation, which frequently become Key Audit Matters and often entail high reporting risk.

In general, this literature indicates that CEOs who possess financial expertise are more adept at comprehending audit risk and interacting with auditors in a productive manner, which could potentially impact the quality and extent of KAM disclosure. Consequently, this investigation proposes that the financial acumen of the CEO influences the disclosure of KAM.

H3: CEO financial expertise affects KAM disclosure.

The Impact of CEO Tenure on Key Audit Matter (KAM) Disclosure

Corporate reporting and disclosure practices may be influenced by the tenure of the CEO, which is a critical leadership attribute. Under the Upper Echelons Theory, executives are able to develop a comprehensive understanding of the firm's operations, internal controls, reporting systems, and risk profiles as a result of their extended tenure as CEOs. This knowledge may influence their perspectives on transparency and engagement with external auditors. Existing evidence indicates that tenure is closely associated with reporting quality and disclosure practices, despite the fact that prior studies have not explicitly examined the relationship between CEO tenure and Key Audit Matter (KAM) disclosure.

Muttakin & Khan (2025) find that the quality of integrated reporting in Australian firms is positively correlated with CEO tenure, while Trisnawati et al. (2023) demonstrate that Enterprise Risk Management (ERM) disclosure in Indonesia is influenced by CEO characteristics, including tenure. In the same vein, Philomena et al. (2024) establish a correlation between the quality of financial reporting in Nigerian firms and the tenure of the CEO. The significance of CEO tenure in auditors' risk assessments is further underscored by audit literature. Amin et al. (2025) demonstrate that audit fees increase during the early and late phases of CEO tenure, which is indicative of elevated audit risk. Additionally, Cai & Li (2022) demonstrate that audit fees increase due to perceived collusion risk during long CEO–CFO tenure.

CEOs with extended tenures are likely to be better prepared to manage and communicate these risks with auditors, as KAM concentrates on high-risk and judgment-intensive reporting areas. Consequently, this investigation proposes that the tenure of the CEO has an impact on the disclosure of KAM.

H4: CEO tenure affects KAM disclosure.

The Impact of CEO Narcissism on the Disclosure of Key Audit Matters (KAM)

CEO narcissism is a personality trait that is distinguished by a strong desire for visibility, admiration, and an overestimation of personal ability. Executive personality traits influence organizational decisions, such as financial reporting and disclosure practices, by shaping cognitive frameworks and preferences, according to Upper Echelons Theory. Narcissistic CEOs frequently engage in impression management, which results in disclosure decisions that are motivated not only by economic considerations but also by self-image motives.

The role of CEO narcissism in shaping disclosure behavior is supported by recent empirical evidence. Lassoued & Khanchel (2022) discover that narcissistic CEOs are more inclined to advocate for comprehensive Corporate Social Responsibility (CSR) disclosure, particularly when they also hold the position of board chair and operate within gender-diverse boards. In the same vein, Rajabalizadeh (2025) demonstrates a positive correlation between CEO narcissism and risk disclosure in management reports in emerging markets. This suggests that narcissistic CEOs disclose a greater amount of risk information in order to

convey their competence. Salehi et al. (2022) demonstrate that managerial narcissism is positively correlated with the intelligibility of audit reports in the audit context, suggesting that it has an impact on the interactions between auditors and clients. Additionally, Liu et al. (2024) assert that auditors perceive a greater risk of client loss when interacting with narcissistic CEOs, which results in a heightened level of professional skepticism and the implementation of more extensive audit procedures. CEO narcissism is also associated with increased financial risk and distress (Kalbuana et al., 2023).

Collectively, these results indicate that CEO narcissism influences KAM disclosure in two ways: directly through disclosure preferences and indirectly through auditors' risk assessments. Therefore, this investigation makes the assertion that the disclosure of KAM is influenced by the narcissism of the CEO.

H5: CEO narcissism affects KAM disclosure.

RESEARCH METHOD

Population and Sample

The study population consists of all non-financial enterprises listed on the IDX between 2022 and 2023, which corresponds to the initial mandatory adoption of Auditing Standard (SA) 701 in Indonesia, giving it an appropriate context for analysing KAM disclosure procedures. Non-financial firms were chosen to eliminate regulatory variations and reporting factors unique to the financial sector, which could impact KAM disclosure practices.

The sample was selected using a purposive sampling method based on the following criteria: (1) non-financial companies listed on the Indonesia Stock Exchange during 2022–2023; (2) companies that published complete annual reports and independent auditor reports during the study period; (3) independent auditor reports that disclosed Key Audit Matters in accordance with SA 701; and (4) companies with complete data on CEO characteristics. As presented in Table 1, the initial population consisted of 669 non-financial companies. No companies were excluded due to incomplete annual reports, incomplete independent auditor reports, or the absence of KAM disclosure. However, 114 companies were excluded because of incomplete data on CEO characteristics. Therefore, the final sample consisted of 555 companies, resulting in 1,110 firm-year observations for the 2022–2023 period.

Table 1
Sample Selection

No	Criteria	Number of Companies
1.	Non-financial companies listed on the Indonesia Stock Exchange (IDX) during 2022–2023	669
2.	Less: Companies excluded due to incomplete annual reports and/or independent auditor reports	0
3.	Less: Companies excluded because the independent auditor's report does not disclose Key Audit Matters in accordance with SA 701	0
4.	Less: Companies excluded due to incomplete data on CEO characteristics	(114)
Final sample companies		555
Firm-year observations during 2022–2023 (555×2 years)		1,110

Research Model

This work used panel data regression for data analysis, given that the dataset encompasses both time-series and cross-sectional elements. The proper panel regression model is selected using the Chow test and the Hausman test to discover the most acceptable model among the Common Effect Model, Fixed Effect Model, and Random Effect Model. Data processing and statistical analysis are conducted with EViews version 13. The random

effects model is chosen as the principal estimating model for this study based on the findings of the diagnostic tests. This study utilises the following panel regression model:

$$KAM = \alpha + \beta_1 CEOg + \beta_2 dCEOf + \beta_3 dCEOe + \beta_4 CEOt + \beta_5 CEO_n + \beta_6 ROA + \beta_7 Size + \varepsilon$$

Where:

KAM represents the Key Audit Matter disclosure index reported in the independent auditor's report;

α denotes the constant term;

β represents the regression coefficients;

CEOg is a dummy variable for CEO gender;

CEOf is a dummy variable for family CEO presence;

CEOe is a dummy variable for CEO financial expertise;

CEOt represents CEO tenure;

CEO_n denotes CEO narcissism;

ε is the error term.

Research Variables

A summary of all operational variables used in this study is presented in Table 2.

Table 2
Summary of Research Variable Operational Definitions

Variable	Definition	Measurement
Dependent		
KAM Disclosure	The extent to which auditors communicate significant audit matters that involved substantial professional judgment and high audit risk in the independent auditor's report.	KAM disclosure is measured using a disclosure index based on twenty KAM topics identified by the Indonesian Institute of Certified Public Accountants (IAPI, 2023), namely: (1) expected credit losses; (2) revenue recognition; (3) inventories; (4) property, plant, and equipment (including depreciation); (5) goodwill impairment; (6) financial instruments; (7) taxation (including deferred tax); (8) insurance; (9) leases; (10) investment property measured at fair value; (11) biological assets; (12) information technology-related issues; (13) allowance for uncollectible receivables; (14) impairment of assets other than property, plant, and equipment and goodwill; (15) prepaid expenses; (16) loans and loan agreements; (17) fraud risk in revenue recognition; (18) business combinations (mergers and acquisitions accounting); (19) other matters; and (20) investments. Each item is assigned a score of "1" if disclosed as a KAM and "0" otherwise. The KAM disclosure index is calculated following Oghuvwu and Orakwue (2019) as: $KAM_score = (Total\ Score\ of\ Disclosed\ KAM\ Items / Total\ Expected\ KAM\ Items) \times 100\%$
Independent		
CEO Gender	CEO gender represents the biological gender of the Chief Executive Officer, reflecting leadership diversity at the top management level.	CEO gender is measured as a dummy variable, coded as 1 if the CEO is female and 0 if male (Sanchez-bueno et al., 2024).
Family CEO	Family CEO indicates whether the Chief Executive Officer is a member of the	Family CEO is measured as a dummy variable, coded as 1 if the CEO is a family member and 0 otherwise (Shaheen et al., 2024).

	controlling family, reflecting family involvement in top managerial positions.	
CEO Financial Expertise	The CEO's knowledge and competence in finance or accounting, which may influence financial reporting quality and disclosure decisions.	CEO financial expertise is measured as a dummy variable, coded as 1 if the CEO has a financial or accounting background and 0 otherwise (Gao et al., 2023).
CEO Tenure	The length of time a CEO has served in the CEO position, reflecting accumulated experience and firm-specific knowledge.	CEO tenure is measured by the length of time the CEO has served in the position. Tenure is calculated from the year of appointment as CEO until the year of the annual report publication (Almulhim and Aljughaiman, 2023).
CEO Narcissism	The CEO's excessive self-confidence and self-promotion tendency, which may influence managerial decisions and disclosure behavior.	CEO narcissism is measured using a photo-based proxy derived from the company's annual report. A score of 1 is assigned if no CEO photo is presented; 2 if the CEO appears with one or more other executives; 3 if the CEO appears alone in a photo occupying less than half a page; 4 if the CEO appears alone in a photo occupying more than half a page; and 5 if the CEO's photo occupies a full page (Kalbuana et al., 2023). This measurement approach has been used and validated in prior studies as a visible indicator of CEO narcissistic tendencies. However, this proxy may be culturally dependent and subject to interpretation bias because the presentation of CEO photographs in annual reports can be influenced by corporate communication style, reporting conventions, and cultural norms rather than solely by the CEO's psychological traits. Therefore, the findings related to CEO narcissism should be interpreted with caution.
Control		
Profitability	A firm's ability to generate earnings from its assets.	Measured using Return on Assets (Rahmawati et al., 2023; Wahyudi, 2025).
Firm Size	The scale of a firm's operations and resources.	Measured as the natural logarithm of total assets (Imronudin et al., 2022; Wardhani et al., 2018).

RESULT AND ANALYSIS

Descriptive Statistics

Descriptive statistics for the variables used in this study are presented in Tables3, including the minimum, maximum, mean, and standard deviation values of one dependent variable, five independent variables, and two control variables.

Table 3
Descriptive Statistics

	KAM	CEOG	CEOf	CEOe	CEOt	CEOn	ROA	Size
Mean	0.898018	0.072072	0.308108	0.442342	6.154955	3.148649	3.312398	28.00451
Median	0.900000	0.000000	0.000000	0.000000	3.000000	3.000000	0.027632	27.92590
Maximum	1.000000	1.000000	1.000000	1.000000	52.00000	13.00000	3613.960	33.29060
Minimum	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	-3.543980	17.98270
Std. Dev.	0.059987	0.258724	0.461920	0.496888	7.974449	0.698106	108.4775	1.972809
Skewness	-6.205188	3.309482	0.831220	0.232180	2.503582	4.720648	33.26601	-0.011488

Kurtosis	91.80104	11.95267	1.690927	1.053907	10.52886	62.96562	1107.750	3.118027
Jarque-Bera Probability	371833.4 0.000000	5733.195 0.000000	207.0788 0.000000	185.1344 0.000000	3781.185 0.000000	170431.9 0.000000	56651628 0.000000	0.668691 0.715807
Sum Sum Sq. Dev.	996.8000 3.990640	80.00000 74.23423	342.0000 236.6270	491.0000 273.8099	6832.000 70523.35	3495.000 540.4730	3676.761 13050007	31085.01 4316.199
Observations	1110	1110	1110	1110	1110	1110	1110	1110

The descriptive statistics in Table 3 show that KAM disclosure has a mean value of 0.898, indicating that, on average, Indonesian non-financial firms disclose approximately 89.8% of the expected KAM items. This relatively high mean suggests strong compliance with the mandatory implementation of SA 701 during the 2022–2023 period. The low dispersion indicates that KAM disclosure practices across firms are relatively homogeneous, reflecting early standardization following regulatory enforcement.

CEO gender has a mean value of 0.072, indicating that only 7.2% of the sampled firms are led by female CEOs. The standard deviation of 0.258 suggests limited variation, confirming that male CEOs dominate top management positions in Indonesian listed non-financial firms. The mean value of CEO family affiliation is 0.308, implying that approximately 30.8% of firms are led by family-member CEOs. This finding reflects the strong presence of family ownership and control structures in Indonesia, with moderate variation across firms.

CEO financial expertise shows a mean of 0.442, indicating that 44.2% of CEOs possess a financial or accounting background. The standard deviation of 0.497 suggests substantial variation among firms, implying heterogeneity in CEO professional competence related to financial reporting. CEO tenure has an average value of 5.730 years, indicating that, on average, CEOs have served more than five years in their positions. The wide range of tenure values suggests notable differences in managerial experience, from newly appointed CEOs to those with long-standing leadership roles. CEO narcissism has a mean score of 3.148, indicating a moderate level of narcissistic traits among CEOs based on the photo-based proxy. The relatively low dispersion suggests that narcissism levels are fairly consistent across firms.

Profitability has a mean value of 3.312, with a wide range between minimum and maximum values. This indicates a highly dispersed distribution of firm performance, suggesting that profitability varies substantially across companies during the observation period. The descriptive statistics initially showed an unusually high standard deviation for ROA, indicating the presence of extreme observations. Therefore, the ROA data were rechecked to ensure consistency in measurement and data input. To reduce the influence of extreme outliers, ROA was winsorized at the 1st and 99th percentiles. This procedure was applied to maintain the reliability of the statistical results while preserving the number of observations. Firm size has a mean value of 28.004, measured as the natural logarithm of total assets. The relatively small variation implies that firm size within the sample is fairly stable, although differences in operational scale remain economically meaningful.

Model Selection Tests

The selection of the panel data estimation model in this study is conducted sequentially using the Chow test, Hausman test, and Lagrange Multiplier (LM) test. These procedures aim to determine the most appropriate model among the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM).

Chow Test (Common Effect Model vs Fixed Effect Model)

The Chow test is employed to examine whether the Fixed Effect Model (FEM) is more appropriate than the Common Effect Model (CEM). Based on the Chow test results presented in the Chow Test Table 4, the Cross-section F statistic is 2.911403 with a probability value of 0.0000, and the Cross-section Chi-square statistic is 1,522.934263 with a probability value of 0.0000. Since these probability values are lower than the 5% significance level ($\alpha = 0.05$), the null hypothesis (H_0) is rejected.

These results indicate the presence of significant cross-sectional heterogeneity among firms, implying that the assumption of a common intercept across all firms under the CEM is inappropriate. Therefore, the Fixed Effect Model is preferred over the Common Effect Model, as it better captures firm-specific individual effects within the sample.

Table 4
Chow Test

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.911403	(554,548)	0.0000
Cross-section Chi-square	1522.934263	554	0.0000

Hausman Test (Fixed Effect Model vs Random Effect Model)

After establishing that the Fixed Effect Model is superior to the Common Effect Model, the next step is to determine whether the Fixed Effect Model (FEM) or the Random Effect Model (REM) is more suitable. For this purpose, the Hausman test is conducted.

The Hausman test results, as reported in the Hausman Test Table 5, show a Chi-square statistic of 4.165587 with 7 degrees of freedom and a probability value of 0.7605. Since the probability value exceeds the 5% significance level, the null hypothesis (H_0) is not rejected.

This finding suggests that there is no systematic difference between the Fixed Effect and Random Effect estimators and that the individual firm effects are not correlated with the explanatory variables in the model. Consequently, the Random Effect Model is considered more efficient and consistent than the Fixed Effect Model, making it the preferred specification for this study.

Table 5
Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.165587	7	0.7605

Lagrange Multiplier Test (Common Effect Model vs Random Effect Model)

As a final confirmation step, the Breusch–Pagan Lagrange Multiplier (LM) test is performed to compare the Common Effect Model (CEM) with the Random Effect Model (REM). The LM test results are presented in the Lagrange Multiplier Test Table 6.

The Breusch–Pagan test yields a test statistic of 132.5533 with a probability value of 0.0000 for the cross-section component. Since this probability value is below the 5% significance level, the null hypothesis (H_0) is rejected, indicating the presence of significant panel effects in the data.

This result confirms that the Common Effect Model is not appropriate and further supports the selection of the Random Effect Model, as it accounts for unobserved random variations across firms that cannot be fully explained by the independent variables.

Table 6
Lagrange Multiplier Test

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	132.5533 (0.0000)	0.862331 (0.3531)	133.4156 (0.0000)
Honda	11.51318 (0.0000)	-0.928618 (0.8235)	7.484414 (0.0000)
King-Wu	11.51318 (0.0000)	-0.928618 (0.8235)	-0.439074 (0.6697)
Standardized Honda	11.62829 (0.0000)	-0.606364 (0.7279)	-11.02082 (1.0000)
Standardized King-Wu	11.62829 (0.0000)	-0.606364 (0.7279)	-2.726674 (0.9968)
Gourieroux, et al.	--	--	132.5533 (0.0000)

Conclusion of Model Selection

Based on the results of the Chow test, Hausman test, and Lagrange Multiplier test, it can be concluded that the Random Effect Model (REM) is the most appropriate panel data estimation model for this study. The REM effectively accommodates firm-level heterogeneity, provides efficient and consistent parameter estimates, and is well suited to the characteristics of panel data from non-financial companies listed in Indonesia during the 2022–2023 period.

Classical Assumption Tests

Prior to hypothesis testing using panel data regression, this study conducts classical assumption tests to ensure that the estimation model satisfies the BLUE (Best Linear Unbiased Estimator) criteria. Given that the estimation model employed in this study is the Random Effect Model (REM), the relevant classical assumption tests include multicollinearity and heteroskedasticity tests, while normality and autocorrelation tests are not considered primary requirements in panel data regression with a large number of observations.

Multicollinearity Test

The multicollinearity test aims to examine whether there is a high correlation among the independent variables in the regression model. High multicollinearity may cause regression coefficients to become unstable and difficult to interpret.

In this study, multicollinearity is assessed by examining the correlation matrix among the independent variables. The results indicate that all correlation coefficients among the independent variables are below 0.80, suggesting that multicollinearity is not present in the regression model. Therefore, all independent variables can be included simultaneously in the research model as presented at table 7.

Table 7
Multicollinearity Test

	CEOG	CEOf	CEOe	CEOt	CEOn	ROA	SIZE
CEOG	1.000000	-0.072800	0.004297	-0.059175	0.005532	-0.008499	-0.064286
CEOf	-0.072800	1.000000	-0.008962	0.173805	0.039601	-0.019489	-0.067064
CEOe	0.004297	-0.008962	1.000000	-0.097645	-0.007763	-0.026464	0.097561
CEOt	-0.059175	0.173805	-0.097645	1.000000	-0.117523	-0.011985	0.040793
CEOn	0.005532	0.039601	-0.007763	-0.117523	1.000000	-0.006425	0.003210
ROA	-0.008499	-0.019489	-0.026464	-0.011985	-0.006425	1.000000	-0.153102
SIZE	-0.064286	-0.067064	0.097561	0.040793	0.003210	-0.153102	1.000000

Heteroskedasticity Test

The heteroskedasticity test was conducted to determine whether the residual variance in the regression model is constant. In this study, the Glejser test was applied by regressing the absolute residual values on all independent and control variables. The decision criterion is that if the probability value of each variable is greater than 0.05, the model is considered free from heteroskedasticity problems.

As presented in Table 8, the probability values for CEOGENDER, CEOFAM, CEOEDU, CEOTENURE, CEONARSIS, PROF, and SIZE are 0.1553, 0.7361, 0.4001, 0.5685, 0.1916, 0.4205, and 0.0638, respectively. All probability values are greater than the 5% significance level. Although the constant is statistically significant, the interpretation of the heteroskedasticity test focuses on the explanatory variables rather than the constant term. Therefore, the results indicate that there is no heteroskedasticity problem in the regression model.

In addition, the selected Random Effect Model is estimated using the Generalized Least Squares (GLS) approach, which helps accommodate differences in error variance across cross-sectional units. Thus, heteroskedasticity is considered to be adequately controlled in this model.

Table 8
Heteroskedasticity Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.088940	0.024135	3.685025	0.0002
CEOGENDER	-0.008506	0.005982	-1.421881	0.1553
CEOFAm	-0.001171	0.003475	-0.337097	0.7361
CEOEDU	-0.002688	0.003193	-0.841745	0.4001
CEOTENURE	0.000114	0.000200	0.570471	0.5685
CEONARSIS	-0.002858	0.002187	-1.306599	0.1916
PROF	-9.65E-06	1.20E-05	-0.805876	0.4205
SIZE	-0.001531	0.000825	-1.855242	0.0638

Hypothesis Testing

Table 9
Hypothesis Testing

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.691974	0.031778	21.77515	0.0000
CEOfg	0.003703	0.007736	0.478727	0.6322
CEOf	-0.000958	0.004545	-0.210831	0.8331
CEOe	0.003449	0.004180	0.825085	0.4095
CEOt	0.000768	0.000259	2.965558	0.0031
CEOn	0.006118	0.002802	2.183317	0.0292
ROA	1.03E-05	1.43E-05	0.722841	0.4699
SIZE	0.006446	0.001088	5.922266	0.0000
Weighted Statistics				
Root MSE	0.041302	R-squared	0.044248	
Mean dependent var	0.523802	Adjusted R-squared	0.038177	
S.D. dependent var	0.042267	S.E. of regression	0.041452	
Sum squared resid	1.893533	F-statistic	7.288382	
Durbin-Watson stat	2.001779	Prob(F-statistic)	0.000000	
Unweighted Statistics				
R-squared	0.066665	Mean dependent var	0.898018	
Sum squared resid	3.724604	Durbin-Watson stat	1.017674	

Based on the panel data regression results estimated using the Random Effect Model (REM) as presented at table 9, the overall model is statistically significant. The F-test indicates an F-statistic of 7.288382 with a Prob(F-statistic) of 0.0000, which is below the 5% significance level, confirming that all independent variables jointly have a significant effect on Key Audit Matters (KAM) disclosure.

The regression results show that the R-squared value is 0.044, while the adjusted R-squared value is 0.038. This indicates that the model explains only 3.8% of the variation in KAM disclosure. Although the explanatory power is relatively low, this result is reasonable because KAM disclosure is a mandatory audit reporting outcome that is primarily determined by external auditors based on professional judgment and the requirements of SA 701. Therefore, CEO characteristics are not expected to fully explain variations in KAM disclosure.

The low adjusted R-squared also suggests that KAM disclosure may be more strongly influenced by auditor-level, regulatory, governance, and firm-risk factors than by CEO characteristics alone. Factors such as audit fees, audit firm size, auditor industry specialization, audit tenure, auditor risk assessment, internal control quality, firm complexity, litigation risk, and industry-specific risk may play a more dominant role in determining the number of KAMs disclosed. Since these factors are not fully captured in the current model, the relatively small explained variance should be interpreted as a limitation rather than as evidence that the model is invalid.

Accordingly, the findings should be interpreted with caution. This study provides evidence that certain CEO characteristics, particularly CEO tenure and narcissism, are associated with KAM disclosure. However, the low adjusted R-squared indicates that CEO characteristics explain only a limited portion of KAM variation. Future research should

therefore incorporate broader audit-level, regulatory, governance-level, and firm-specific variables to provide a more comprehensive explanation of KAM disclosure.

The regression model is deemed appropriate for explaining variations in KAM disclosure among non-financial firms listed in Indonesia during the 2022–2023 period. The estimated regression equation is:

$$\text{KAM} = 0.691974 + 0.003703\text{CEOg} - 0.000958\text{CEOf} + 0.003449\text{CEOe} + 0.000768\text{CEOt} + 0.006118\text{CEOn} + 0.0000103\text{ROA} + 0.006446\text{SIZE} + \epsilon.$$

The constant value of 0.691974 represents the baseline level of KAM disclosure when all independent variables are held constant. The t-test results reveal that CEO tenure has a positive and statistically significant effect on KAM disclosure, with a coefficient of 0.000768, a t-statistic of 2.965558, and a p-value of 0.0031, indicating that longer-serving CEOs are associated with higher levels of KAM disclosure. Similarly, CEO narcissism exhibits a positive and significant relationship with KAM disclosure, as indicated by a coefficient of 0.006118, a t-statistic of 2.183317, and a p-value of 0.0292.

In addition, the control variable firm size (SIZE) shows a strong positive and significant effect, with a coefficient of 0.006446, a t-statistic of 5.922266, and a p-value of 0.0000, suggesting that larger firms tend to disclose more Key Audit Matters. In contrast, CEO gender, CEO family affiliation, CEO financial expertise, and profitability are not statistically significant, with p-values of 0.6322, 0.8331, 0.4095, and 0.4699, respectively. Overall, these findings indicate that experiential and psychological characteristics of CEOs, along with firm size, play a more dominant role in influencing KAM disclosure than demographic attributes or formal financial expertise.

The Impact of Female CEO Presence on Key Audit Matter (KAM) Disclosure

The results of this study indicate that Key Audit Matters (KAM) disclosure is not significantly influenced by CEO gender. The presence of a female CEO does not directly affect the extent of KAM disclosure in independent auditors' reports. Although Upper Echelons Theory suggests that executive attributes such as gender are reflected in organizational policies and disclosure practices, this assumption is not fully applicable in the context of mandatory, auditor-driven audit disclosures.

This insignificant result is consistent with prior empirical research showing that the effect of CEO gender on disclosure is highly context-dependent. In voluntary disclosure settings, such as earnings forecasts, Francoeur et al. (2022) find that female CEOs tend to be more cautious and proactive; however, these outcomes rely heavily on managerial discretion. Similarly, Caby et al. (2024) demonstrate that regulatory constraints in highly standardized disclosure environments substantially reduce the influence of executive gender. In addition, Santoso & Setiawan (2024) report that CEO characteristics, including gender, do not consistently explain disclosure variations once institutional and governance factors are considered.

In the context of KAM, which is a mandatory audit disclosure under SA 701 and largely determined by auditors' professional judgment, CEO discretion is severely limited. From an agency theory perspective, KAM functions as an independent monitoring mechanism designed to reduce information asymmetry. Consequently, KAM disclosure is primarily shaped by auditors' risk assessments rather than managerial preferences or demographic characteristics. Overall, these findings highlight the boundary conditions of Upper Echelons Theory and confirm that CEO gender does not materially influence KAM disclosure within a highly regulated audit framework.

The Impact of Family CEO on the Disclosure of Key Audit Matters (KAM)

The results of this study indicate that the disclosure of Key Audit Matters (KAM) is not significantly influenced by the presence of a family CEO. This suggests that transparency in KAM disclosure within independent auditors' reports is not directly affected by a CEO's affiliation with the controlling family, as auditors do not rely on family involvement at the CEO level when determining significant audit matters.

From an agency theory perspective, family firms are often characterized by lower type I agency conflicts due to the alignment between ownership and management, but they may face type II agency conflicts between controlling families and minority shareholders. Although such conflicts could incentivize disclosure restriction, the findings indicate that this is not reflected in KAM disclosure. As a mandatory and highly regulated audit disclosure, KAM is subject to strict auditing standards and regulatory oversight, limiting the influence of family interests through independent auditing.

Consistent with prior studies, Philomena et al. (2024) find that CEO gender does not significantly affect KAM disclosure, despite evidence linking gender to financial reporting quality in other contexts. This supports the view that KAM disclosure is driven more by auditors' professional judgment than by managerial demographic characteristics. Similarly, Natalia et al. (2022) show that family ownership does not significantly influence Corporate Social Responsibility (CSR) disclosure in Indonesian listed firms, while Sucahyati et al. (2022) report no significant relationship between family firms and CSR disclosure when formal governance structures are present. Furthermore, Prayogo et al. (2024) demonstrate that family ownership does not significantly affect ESG disclosure, highlighting the reduced role of family involvement as reporting becomes more standardized. Overall, these findings illustrate the boundary conditions of Upper Echelons Theory, as managerial discretion is constrained in highly regulated, auditor-driven disclosures such as KAM.

The Impact of CEO Financial Expertise on the Disclosure of Key Audit Matters (KAM)

The results of this study show that CEO financial expertise does not have a significant effect on the disclosure of Key Audit Matters (KAM). This indicates that a CEO's educational background or professional experience in finance or accounting does not directly influence audit-related transparency. Although financial expertise is often associated with a stronger understanding of accounting complexity and reporting risk, it does not materially affect KAM disclosure, which is primarily determined by auditors rather than management.

According to Upper Echelons Theory Hambrick & Mason (1984), executives' functional backgrounds are expected to shape organizational decisions, including disclosure practices. Financially knowledgeable CEOs are theoretically assumed to promote higher-quality reporting. However, the findings suggest that this theoretical expectation is not fully applicable in the context of KAM, where managerial discretion is limited and disclosure decisions are largely auditor-driven.

This result is consistent with prior empirical evidence. Philomena et al. (2024) find that CEO financial expertise does not significantly affect financial reporting quality in Nigerian listed firms, indicating that technical financial knowledge alone may not enhance transparency. Trisnawati et al. (2023) report no significant relationship between CEO financial expertise and Enterprise Risk Management (ERM) disclosure in Indonesian non-financial firms, highlighting the stronger influence of governance and organizational factors. In addition, Putri & Ricky (2025) show that CEO financial expertise does not significantly affect audit delay in Indonesian mining firms, suggesting that audit outcomes are more dependent on audit complexity, internal control quality, and auditor characteristics.

From an agency theory perspective Jensen & Meckling (1976), KAM functions as an independent monitoring mechanism designed to reduce information asymmetry. As a

mandatory and auditor-driven disclosure, KAM constrains managerial influence, which explains the insignificant role of CEO financial expertise in shaping KAM disclosure outcomes.

The Impact of CEO Tenure on Key Audit Matter (KAM) Disclosure

The results of this study suggest that the disclosure of Key Audit Matters (KAM) is positively influenced by the tenure of the CEO. Firms that are managed by CEOs who have served for an extended period of time tend to demonstrate increased levels of KAM disclosure in independent audit reports, which implies that the duration of executive leadership is a substantial factor in the development of audit transparency. Upper Echelons Theory contends that organizational outcomes, including transparency and reporting quality, are influenced by the cognitive frameworks, values, and experiences of executives that have been cultivated over time (Hambrick & Mason, 1984). This discovery is in accordance with this theory. In general, CEOs who have been in the position for an extended period of time usually have a more comprehensive understanding of the internal controls, inherent business risks, and firm operations. This knowledge enables them to more effectively engage with external auditors in identifying critical audit areas.

Empirical research shows that CEO tenure and broader CEO characteristics influence financial reporting outcomes and governance, which can affect how auditors assess and communicate audit risk. For example, long-tenured CEOs have been found to be associated with higher quality financial reporting in Nigerian listed firms, suggesting that extended experience may enhance reporting practices that external auditors must interpret and communicate (Philomena et al., 2024). In the context of emerging markets, board features and auditor characteristics, including CEO attributes, have been found to significantly shape the extent and pattern of Key Audit Matter (KAM) disclosures, highlighting the role of managerial experience and governance in audit communication (Rahaman & Karim, 2023).

Auditors may mitigate information asymmetry by increasing KAM disclosures in response to increased complexity and risk, while extended CEO tenure may promote managerial comprehension from an agency theory perspective. In general, the results corroborate that CEO tenure is a critical determinant of KAM disclosure, thereby bolstering the relevance of Upper Echelons Theory in the context of mandatory audit reporting.

The Impact of CEO Narcissism on the Disclosure of Key Audit Matters (KAM)

The empirical results of this study show that CEO narcissism has a significant effect on the disclosure of Key Audit Matters (KAM). This finding indicates that CEOs' psychological traits may be relevant in explaining audit-related disclosure outcomes, particularly the extent to which significant audit issues are communicated in independent auditors' reports. This result is consistent with Upper Echelons Theory, which argues that executives' psychological characteristics influence organizational decisions and outcomes, including financial reporting and disclosure practices (Hambrick & Mason, 1984b).

However, the influence of CEO narcissism on KAM disclosure should not be interpreted as a direct managerial determination of KAM content. Under SA 701, the identification and disclosure of KAM are the responsibility of external auditors based on professional judgment. Therefore, narcissistic CEOs are unlikely to directly decide the number or content of KAM disclosed in the auditor's report. Instead, the effect of CEO narcissism is more likely to operate indirectly through the financial reporting environment, auditor–client interaction, and auditors' assessment of engagement risk.

The indirect mechanism can be explained as follows. Narcissistic CEOs are commonly associated with strong self-confidence, dominance, egocentrism, a desire for recognition, and a tendency to protect personal image. These traits may influence

management's reporting style, risk-taking behaviour, tone in auditor–client communication, and willingness to accept audit adjustments. Such conditions may increase auditors' perception of managerial bias, financial reporting risk, and complexity in areas requiring significant professional judgment. In response, auditors may apply greater professional skepticism, perform more extensive audit procedures, and disclose more critical audit matters to communicate areas of significant audit attention to financial statement users.

This interpretation is also consistent with Agency Theory, which emphasizes potential conflicts of interest between managers and shareholders. Narcissistic CEOs may prioritize personal reputation and external image, thereby increasing the possibility of aggressive reporting behaviour or resistance in audit negotiations. Consequently, auditors may perceive higher audit risk and respond by providing more transparent or more extensive KAM disclosure. Thus, CEO narcissism affects KAM disclosure primarily through auditors' risk assessment and reporting response, rather than through direct CEO control over the audit report.

Prior studies support this interpretation. Elmarzouky et al. (2022) show that executive behavioral attributes can influence audit reporting outcomes and auditors' disclosure decisions. Salehi et al. (2022) find that managerial characteristics associated with risk-related behaviour are linked to audit report readability and complexity, suggesting that auditors respond more cautiously when management characteristics increase perceived reporting risk. Rajabalizadeh & Schadewitz (2024) document that narcissistic traits of key individuals, including CEOs, are associated with changes in audit report readability and complexity within the ISA 701 environment. Their findings suggest that auditors adjust audit communication when client executives exhibit personality traits that may increase audit risk. Similarly, Septiany et al. (2025) provide evidence that CEO narcissism is related to audit outcomes, including audit opinion characteristics and reporting timeliness, indicating that narcissistic CEOs may influence auditors' risk assessment and audit scrutiny.

Overall, the findings suggest that CEO narcissism influences KAM disclosure mainly through an indirect mechanism. Narcissistic CEOs may shape the reporting environment and auditor–client interaction in ways that increase perceived audit risk, which then encourages auditors to disclose more KAM. Therefore, the result supports Hypothesis 5 and extends the application of Upper Echelons Theory to mandatory audit reporting by showing that psychological traits of CEOs may affect audit disclosure outcomes through auditors' professional judgment and risk response.

CONCLUSIONS, LIMITATIONS AND SUGGESTIONS

Conclusions

This study examines the effect of Chief Executive Officer (CEO) characteristics on the disclosure of Key Audit Matters (KAM) in non-financial companies listed on the Indonesia Stock Exchange during the 2022–2023 period. Using panel data regression with a Random Effect Model, the findings show that CEO gender, familial ties, and financial expertise do not significantly affect KAM disclosure. These results suggest that certain demographic and professional attributes of CEOs have limited influence on KAM disclosure, possibly because KAM reporting is mandatory and primarily determined by auditors based on professional judgment and applicable auditing standards.

In contrast, CEO tenure and CEO narcissism are found to significantly influence KAM disclosure. These findings indicate that leadership experience and psychological traits may play a more important role in shaping auditor–client interactions, management communication, and auditors' risk assessments. CEOs with longer tenure may have deeper organizational knowledge and stronger influence over internal reporting processes, while narcissistic CEOs may affect corporate disclosure practices through self-confidence,

dominance, and risk-taking tendencies. Therefore, although Upper Echelons Theory may have limited explanatory power in explaining mandatory audit disclosures based on demographic characteristics, it remains relevant when CEO characteristics are related to experience, cognition, and psychological bias.

Theoretically, this study extends the application of Upper Echelons Theory to the audit reporting context, particularly in relation to KAM disclosure. Prior studies on KAM have mostly focused on firm-level, audit-level, and governance-level determinants. By incorporating CEO characteristics, especially CEO tenure and narcissism, this study provides evidence that executive-level traits may also be associated with audit reporting outcomes. The findings contribute to the audit literature by showing that KAM disclosure is not only a technical outcome of auditing standards but may also be influenced by managerial characteristics that shape the audit environment and auditor–client communication.

Practically, the findings provide important implications for auditors, regulators, investors, and corporate governance mechanisms. For auditors, the results suggest the importance of considering CEO-related characteristics, particularly tenure and narcissistic tendencies, when assessing audit risk and determining matters that require disclosure as KAM. For regulators, the findings highlight the need to continuously evaluate the implementation of SA 701 to ensure that KAM disclosure remains informative, transparent, and not overly influenced by management characteristics. For investors and financial statement users, the findings suggest that CEO characteristics may provide additional context when interpreting KAM disclosures in independent auditor's reports.

From a corporate governance perspective, the findings imply that boards of directors, audit committees, and nomination committees should pay closer attention not only to CEOs' demographic and professional backgrounds but also to their leadership experience and behavioural traits. Strong governance oversight is needed to ensure that CEO influence does not reduce the transparency or objectivity of audit reporting. In particular, audit committees should strengthen communication with external auditors to ensure that KAM disclosure reflects significant audit risks and professional judgment rather than management preferences.

Overall, this study concludes that CEO characteristics have a selective influence on KAM disclosure. While CEO gender, familial ties, and financial expertise do not appear to affect KAM disclosure, CEO tenure and narcissism are important factors associated with audit reporting outcomes. These findings reinforce the importance of examining managerial characteristics in audit research and provide a foundation for future studies to explore broader psychological, governance, and audit-related determinants of KAM disclosure.

Limitations

This study is subject to several limitations. First, the model includes only profitability and firm size as control variables. Although these variables are This study has several limitations. First, the sample is limited to Indonesian non-financial listed companies and covers a relatively short observation period. Therefore, the findings may not be fully generalizable to financial companies, other institutional settings, or longer reporting periods. Since KAM disclosure practices may evolve over time following the implementation of SA 701, a longer observation period may provide a more comprehensive understanding of changes in audit reporting behaviour.

Second, this study focuses on the quantity of KAM disclosure, measured by the number of Key Audit Matters reported in the independent auditor's report. Although the number of KAMs reflects the extent of audit disclosure, it does not fully capture the quality, specificity, readability, or informativeness of the disclosed KAMs. As a result, companies with the same number of KAMs may still differ in terms of disclosure depth and usefulness for financial statement users.

Third, the model includes profitability and firm size as control variables. Although these variables are commonly used in audit and disclosure studies, the adjusted R-squared value of 0.038 indicates that the model explains only a small proportion of the variation in KAM disclosure. This suggests that KAM disclosure may be influenced by other audit-level, governance-level, and firm-specific risk factors that are not included in this study, such as leverage, loss, audit firm size, audit fees, audit tenure, auditor industry specialization, board independence, audit committee characteristics, and industry and year effects.

Fourth, CEO narcissism is measured using a photo-based proxy from annual reports. Although this proxy has been used in prior studies, it may be influenced by corporate communication policies, annual report design, cultural norms, and subjective interpretation rather than solely reflecting the CEO's psychological characteristics. Therefore, the findings related to CEO narcissism should be interpreted with caution.

Finally, this study relies on secondary data obtained from annual reports and independent auditor's reports. Consequently, it cannot directly observe the actual interaction between CEOs, audit committees, and external auditors during the audit process. Since KAM disclosure is partly shaped by auditor professional judgment and auditor-client communication, this limitation may restrict the ability of the study to fully explain the decision-making process behind KAM disclosure commonly used in audit and disclosure studies, the adjusted R-squared value of 0.038 indicates that the model explains only a small proportion of the variation in KAM disclosure. This suggests that KAM disclosure may be influenced by other audit-level, governance-level, and firm-specific risk factors that are not included in this study. Future research is therefore encouraged to incorporate additional control variables, such as leverage, loss, audit firm size, audit fees, audit tenure, auditor industry specialization, board independence, audit committee characteristics, and industry and year effects.

Suggestions

Future research is encouraged to extend the observation period to examine the development of KAM disclosure practices over a longer timeframe. A longer period would allow researchers to analyze changes in disclosure behaviour, identify trends after the implementation of SA 701, and capture possible learning effects among auditors and companies.

Future studies may also expand the sample by including financial and highly regulated firms or by conducting comparisons between financial and non-financial sectors. This would provide a broader understanding of whether the relationship between CEO characteristics and KAM disclosure differs across industries with different regulatory requirements and audit risk profiles.

In addition, future research should consider alternative or complementary measures of CEO narcissism. These may include textual analysis of CEO letters, first-person pronoun usage, CEO communication style, media exposure, compensation structure, or survey-based instruments such as the Narcissistic Personality Inventory. Using multiple measures may provide a more comprehensive assessment of CEO narcissism and reduce measurement bias.

Future studies should also incorporate additional audit-level, governance-level, and firm-risk variables, such as audit fees, audit firm size, audit tenure, auditor industry specialization, board independence, audit committee expertise, internal control quality, litigation risk, leverage, financial distress, and firm complexity. Including these variables may improve the explanatory power of the model and provide a more complete understanding of the determinants of KAM disclosure.

Furthermore, future research may address potential endogeneity issues by using more advanced research designs, such as fixed-effects models, instrumental variable approaches,

lagged independent variables, or propensity score matching. These methods may help reduce bias arising from unobserved firm characteristics and non-random CEO selection.

Finally, cross-country studies are recommended to examine whether the findings are consistent across different institutional, regulatory, and governance environments. Such studies would help determine whether the influence of CEO characteristics on KAM disclosure is specific to Indonesia or applicable to broader emerging and developed market contexts.

REFERENCES

- Abdelfattah, T., Elmahgoub, M., & Elamer, A. A. (2021). Female Audit Partners and Extended Audit Reporting : UK Evidence. *Journal of Business Ethics*, 174(1), 177–197. <https://doi.org/10.1007/s10551-020-04607-0>
- Alduneibat, K. A. (2024). Factors Affecting The Level of Key Audit Matters Disclosure: Evidence from Jordan. *Jordan Journal of Business Administration*, 20(2), 209–227. <https://doi.org/10.35516/jjba.v20i2.2008>
- AlJanadi, Y. (2025). Gender diversity and disclosure: a meta-analysis. *International Journal of Disclosure and Governance*, 0123456789. <https://doi.org/10.1057/s41310-024-00285-w>
- Alkhawaja, A., Hu, F., Johl, S., & Nadarajah, S. (2023). Board gender diversity, quotas, and ESG disclosure: Global evidence. *International Review of Financial Analysis*, 90(July), 102823. <https://doi.org/10.1016/j.irfa.2023.102823>
- Almulhim, A. A., & Aljughaiman, A. A. (2023). Corporate Sustainability and Financial Performance: The Moderating Effect of CEO Characteristics. *Sustainability (Switzerland)*, 15(16). <https://doi.org/10.3390/su151612664>
- Alrobai, F., & Albaz, M. M. (2025). The Impact of CEO and Firm Attributes on ESG Performance : Evidence from an Emerging Market. *Journal of Risk and Financial Management*, 18(5), 268. <https://doi.org/https://doi.org/10.3390/jrfm18050268>
- Amin, M. A., Abdelmaged, E. M., & Elamer, A. A. (2025). *Power , risk and cost : how CEO tenure and foreign ownership shape audit pricing in an emerging economy*. December. <https://doi.org/10.1108/IJAIM-10-2024-0408>
- Bamber, L. S., & Wang, I. Y. (2010). What ' s My Style ? The Influence of Top Managers on Voluntary Corporate Financial Disclosure. *Midwest Accounting Research Conference*, 85(4), 1131–1162. <https://doi.org/https://doi.org/10.2308/accr.2010.85.4.1131>
- Boonlert-u-thai, K., & Suttipun, M. (2023). Influence of External and Internal Auditors on Key Audit Matters (KAMs) Reporting in Thailand Influence of External and Internal Auditors on Key Audit Matters (KAMs) Reporting in Thailand. *Cogent Business & Management*, 10(3). <https://doi.org/10.1080/23311975.2023.2256084>
- Caby, J., Coron, C., & Ziane, Y. (2024). How Does Gender Diversity in Top Management Teams Affect Carbon Disclosure and Its Quality ? Evidence from the Technological Industry. *Technological Forecasting and Social Change*, 199. <https://doi.org/https://doi.org/10.1016/j.techfore.2023.123077>
- Cai, Y., & Li, M. (2022). CEO-CFO Tenure Consistency and Audit Fees. *Pacific-Basin Finance Journal*, 73(April), 101779. <https://doi.org/10.1016/j.pacfin.2022.101779>
- Carver, B., & Muriel, L. (2025). Critical Audit Matters and Nonprofessional Investors ' Perceptions of Auditor Credibility, Information Overload, Audit Quality and Investment Risk. *Current-Issues-in-Auditing*, XX(Xx), 1–8. <https://doi.org/10.2308/CIIA-2024-033>
- Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative*

- Science Quarterly*, 52(3), 351–386. <https://doi.org/10.2189/asqu.52.3.351>
- Elmarzouky, M., Hussainey, K., Abdelfattah, T., & Karim, A. E. (2022). Corporate Risk Disclosure and Key Audit Matters: the Egocentric Theory. *International Journal of Accounting and Information Management*, 30(2), 230–251. <https://doi.org/10.1108/IJAIM-10-2021-0213>
- Francoeur, C., Li, Y., & Singer, Z. (2022). Earnings Forecasts of Female CEOs : Quality and Consequences. *Review of Accounting Studies*. <https://doi.org/https://doi.org/10.1007/s11142-021-09669-7> Earnings
- Gao, Y., Tang, Y., & Zhang, J. (2023). CEO Financial Background, Managerial Ownership, and Corporate Innovation : Insights from Imprinting Theory. *Frontiers in Psychology*, February, 1–12. <https://doi.org/10.3389/fpsyg.2023.1126853>
- Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons : The Organization as a of Reflection of Its Top Managers. *Academy of Management Review*, 9(2), 193–206. <https://doi.org/http://doi.org/10.5465/AMR.1984.4277628>
- He, L. J., & Rivai, F. A. (2025). The Effect of Gender Diversity on The Disclosure of Key Audit Matters : Examination of Dual-Signature Environment. *Managerial Auditing Journal*, 39(4), 396–418. <https://doi.org/10.1108/MAJ-09-2022-3695>
- Hirshleifer, D., Low, A., & Teoh, S. H. (2012). Are Overconfident CEOs Better Innovators ? *The Journal of Finance*, 67(4), 1457–1498.
- IAASB. (2015). *International Standard on Auditing (ISA) 701, Communicating Key Audit Matters in The Independent Auditor's Report*.
- IAPI. (2022). *Standar Audit (SA) 701: Pengomunikasian Hal Audit Utama*. Institut Akuntan Publik Indonesia (IAPI).
- IAPI. (2023). *Penerapan Tahun Pertama SA 701 Tentang Pengomunikasian Hal Audit Utama (HAU) di Indonesia*. Institut Akuntan Publik Indonesia. www.iapi.or.id
- Imronudin, Waskito, J., Cantika, B., & Sofiardhani, G. (2022). The Effect of Liquidity and Capital Structure to Increase Firm Value Through Increasing Financial Performance. *Riset Akuntansi Dan Keuangan Indonesia*, 7(3), 345–354.
- 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.
- Jiang, Y., & Olesen, K. (2024). Determinants of Key Audit Matter Disclosures: New Zealand Evidence. In *SSRN Electronic Journal* (Issue December). <https://doi.org/10.2139/ssrn.4675221>
- Joudeh, N., & Aqel, S. (2024). Do Audit Firm and Audit Committee Characteristics Influence The Reporting of Key Audit Matters? Evidence from Palestine. *Cogent Business and Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2396537>
- Kalbuana, N., Taqi, M., Uzliawati, L., & Ramdhani, D. (2023). CEO Narcissism, Corporate Governance, Financial Distress, and Company Size on Corporate Tax Avoidance. *Cogent Business & Management*, 10(1). <https://doi.org/10.1080/23311975.2023.2167550>
- Khandelwal, C., Kumar, S., Madhavan, V., & Pandey, N. (2020). Do board characteristics impact corporate risk disclosures ? The Indian experience. *Journal of Business Research*, 121(July), 103–111. <https://doi.org/10.1016/j.jbusres.2020.08.004>
- Lassoued, N., & Khanchel, I. (2022). Voluntary CSR Disclosure and CEO Narcissism : The Moderating Role of CEO Duality and Board Gender Diversity. In *Review of Managerial Science* (Issue 0123456789). Springer Berlin Heidelberg. <https://doi.org/10.1007/s11846-022-00555-3>
- Liu, M., Muhamad, H., Soh, W. N., & Hu, G. (2024). How Does Narcissism Influence Auditing ? A Systematic Literature Review. *International Journal of Academic*

- Research in Accounting, Finance and Management Sciences*, 14(4), 214–233.
<https://doi.org/10.6007/IJARAFMS/v14-i4/23158>
- Manzi, M. A., Cirillo, A., Mussloni, D., & Uman, T. (2024). Early Adoption of Non-Financial Disclosure in Family Firms. *European Management Review*, 1–22.
<https://doi.org/10.1111/emre.12690>
- Muttakin, M. B., & Khan, A. (2025). *CEO tenure , board monitoring and competitive corporate culture : how do they influence integrated reporting ?* 47(1), 75–99.
<https://doi.org/10.1108/JAL-02-2023-0030>
- Natalia, M., Christy, Y., Gunawan, Y., & Kurniawan, J. (2022). Pengungkapan Tanggung Jawab Sosial Perusahaan Sebelum dan Semasa Pandemi Covid-19: Bukti Empiris dari Indonesia. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, Dan Akuntansi)*, 6(3), 1181–1188.
- Ngo, D. N. P., & Nguyen, C. Van. (2022). Does The CEO 's Financial and Accounting Expertise Affect The Financial Reporting Quality ? Evidence From an Emerging Economy. *Journal of Financial Reporting and Accounting*, 22(3), 653–676.
<https://doi.org/10.1108/JFRA-09-2021-0301>
- Nguyen, T. K. L., Xuan, P., Thi, H., & Phuong, L. (2025). CEO 's Financial and Accounting Expertise on Earning Quality : The Moderating Role of Audit Quality. *WSB Journal of Business and Finance*, 59(1), 81–92. <https://doi.org/10.2478/WSBJBF-2025-0007>
- Oghuvwu, M. ., & Orakwue, A. . (2019). Determinants of Key Audit Matters Disclosure. *Accounting and Taxation Review*, 41(3–3), 69–77. <http://www.atreview.org>
- Philomena, O. N., Esther, O. T., & Gbadebo, A. D. (2024). CEO Characteristics and Financial Reporting Quality in Listed Consumer Goods Companies in Nigeria. *Gusau Journal of Accounting and Finance*, 5(1).
- Pinto, I., & Morais, A. I. (2019). What Matters in Disclosures of Key Audit Matters: Evidence from Europe. *Journal of International Financial Management and Accounting*, 30(2), 145–162. <https://doi.org/10.1111/jifm.12095>
- Prayogo, I., Setiawati, R., & Bah, C. J. (2024). How Ownership Structure and ESG Disclosure Influence Firm Value and Performance : Unveiling the Audit Committee ' s Moderating Effects. *Advances in Management Innovation (AMI)*, 1(1), 59–70.
<https://doi.org/https://doi.org/10.69725/ami.v1i1.98>
- Putri, A. M., & Ricky, R. (2025). Dual Strategy : Female Oversight and Financial Expertise Curb Audit Delay in Complex Firms. *Journal of Business and Economics Research (JBE)*, 6(3), 917–925. <https://doi.org/10.47065/jbe.v6i3.8461>
- Rahaman, M., & Karim, R. (2023). How do Board Features and Auditor Characteristics Shape Key Audit Matters Disclosures ? Evidence from Emerging Economies. *China Journal of Accounting Research*, 16(4), 100331.
<https://doi.org/10.1016/j.cjar.2023.100331>
- Rahmawati, A., Suryani, A., & Mukharomah, W. (2023). Pengaruh Likuiditas , Profitabilitas , dan Struktur Modal Terhadap Nilai Perusahaan (Studi Kasus pada Jakarta Islamic Indeks Sebelum dan Masa Pandemi). *Determinasi: Jurnal Ekonomi Manajemen Dan Akuntansi*, 1(3), 40–49.
- Rajabalizadeh, J. (2025). Personality and Perception : Assessing the Role of CEO Narcissism in Risk Disclosure Practices in an Emerging Market. *Journal of Language and Social Psychology*, 44(6), 985–1030. <https://doi.org/10.1177/0261927X251342566>
- Rajabalizadeh, J., & Schadewitz, H. (2024). Audit Partner Narcissism and Audit Reports Readability : Evidence from Lead and Review Audit Partners. *Managerial Auditing Journal*. <https://doi.org/10.1108/MAJ-04-2024-4310>
- Reid, L. C., Carcello, J. V., Li, C., & Neal, T. L. (2019). Impact of Auditor Report Changes on Financial Reporting Quality and Audit Costs: Evidence from the United Kingdom.

- Contemporary Accounting Research*, 36(3), 1501–1539. <https://doi.org/10.1111/1911-3846.12486>
- Rossignoli, F., Bozzolan, S., & Lionzo, A. (2025). Financial Expert CEOs : Evidence from Purchase Price Allocation. *Journal of International Accounting, Auditing and Taxation*. <https://doi.org/https://doi.org/10.1016/j.intaccaudtax.2025.100711>
- Salehi, M., Zimon, G., & Seifzadeh, M. (2022). The Effect of Management Characteristics on Audit Report Readability. *Economies*, 10(12), 1–23. <https://doi.org/https://doi.org/10.3390/economies10010012>
- Sanchez-bueno, M. J., Velasco, P., Massis, A. De, Mu, F., & Vismara, S. (2024). Executive Gender and Firm Leverage Decisions : The Role of Firm Ownership and Governance. *Journal of Business Research*, 179(June 2023). <https://doi.org/10.1016/j.jbusres.2024.114700>
- Sania, W., & Ali, S. (2024). The Impact of Audit Fee, Size of Public Accounting Firm, Company Size, and Leverage on the Communication of Key Audit Matters (Implementation of The First Year of KAMs Adoption in Independent Auditors' Reports in Indonesia. *Eduvest - Journal of Universal Studies*, 4(10), 9547–9564.
- Santoso, A., & Setiawan, D. (2024). CEO Characteristics and Water Disclosure : Multi-country Evidence. *Sustainable Futures*, 8(May), 100322. <https://doi.org/10.1016/j.sfr.2024.100322>
- Septiany, S., Jurnali, T., Suparman, M., & Harsono, B. (2025). Audit Opinion , Big4 , Auditor Narcissism and CEO Narcissism : Drivers of Reporting Timeliness. *Jurnal Aset (Akuntansi Riset)*, 17(1), 67–78.
- Shaheen, L., Alatyat, Z., Aldabbas, Q., Abu Shihab, R. N., & Abuaddous, M. (2024). The Impact of CEO Characteristics on Investment Efficiency in Jordan: The Moderating Role of Political Connections. *Journal of Risk and Financial Management*, 17(12), 1–15. <https://doi.org/10.3390/jrfm17120540>
- Sucahyati, D., Harymawan, I., & Nasih, M. (2022). Corporate Social Responsibility (CSR) Disclosure on Politically Connected-Family Firms. *Journal of Accounting and Investment*, 23(2). <https://doi.org/10.18196/jai.v23i2.14865>
- Susanto, H., Suryadnyana, N. A., & Rusmin, R. (2024). The Impact of Family Firms and Supervisory Boards on Corporate Environmental Quality. *Journal of Risk and Financial Management*, 17, 263. <https://doi.org/https://doi.org/10.3390/jrfm17070263> Academic
- Suttipun, M. (2020). Factors Influencing Key Audit Matters Reporting in Thailand. *Asian Journal of Accounting Perspectives*, 13(1), 26–39. <https://doi.org/10.22452/ajap.vol13no1.2>
- Trisnawati, R., Mustikawati, S., & Sasongko, N. (2023). Enterprise Risk Management Disclosure and Ceo Characteristics: an Empirical Study of Go Public Companies in Indonesia. *Business: Theory and Practice*, 24(2), 379–391. <https://doi.org/10.3846/btp.2023.18505>
- Velte, P. (2018). Does Gender Diversity in The Audit Committee Influence Key Audit Matters' Readability in The Audit Report? UK Evidence. *Corporate Social Responsibility and Environmental Management*, 25(5), 748–755. <https://doi.org/10.1002/csr.1491>
- Wahyudi, H. D. (2025). RGEC sebagai Indikator Kesiapan Green Banking : Analisis Komparatif Bank Swasta Konvensional dan Syariah di Indonesia. *Benefit: Jurnal Manajemen Dan Bisnis*, 10, 106–127.
- Wang, G., & Wu, M. (2024). Corporate Carbon Emissions Management and The Disclosure of Key Audit Matters. *Frontiers in Environmental Science*, 12(April), 1–14. <https://doi.org/10.3389/fenvs.2024.1381466>

- Wardhani, P., Wiyadi, & Susila, I. (2018). Pengaruh Pengungkapan CSR, Leverage, Likuiditas dan Ukuran Perusahaan terhadap Kinerja Keuangan. *Daya Saing : Jurnal Ekonomi Manajemen Sumber Daya*, 23(1), 1–12.
- Wei, J., Ouyang, Z., & Chen, H. (Allan). (2018). CEO characteristics and corporate philanthropic giving in an emerging market: The case of China. *Journal of Business Research*, 87(February), 1–11. <https://doi.org/10.1016/j.jbusres.2018.02.018>
- Wuttichindanon, S., & Issarawornrawanich, P. (2020). Determining Factors of Key Audit Matter Disclosure in Thailand. *Pacific Accounting Review*, 32(4), 563–584. <https://doi.org/10.1108/PAR-01-2020-0004>