

# Integrated Reporting Disclosure and Firm Value: The Moderating Role of Audit Tenure in ASEAN-5 Countries

Ghifari Robby Maulana<sup>1</sup> | Tito IM. Rahman Hakim\*<sup>2</sup> | Erfan Muhammad<sup>3</sup> | Frida Fanani Rohma<sup>4</sup>

<sup>1,2,3,4</sup> *Accounting Study Program, Faculty of Economics and Business, Universitas Trunojoyo Madura, Bangkalan, Indonesia*

\*Corresponding author: tito.rhakim@trunojoyo.ac.id

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## ABSTRACT

This study investigates the effect of integrated reporting disclosure (IRD) on firm value, with audit tenure as a moderating variable. The sample consists of mining and property companies listed in ASEAN-5 capital markets, yielding 363 firm-year observations between 2021 and 2023 through purposive sampling. Using panel data regression, the findings show no significant relationship between IRD and firm value. Moreover, audit tenure negatively moderates this relationship, suggesting that extended auditor tenure weakens the potential benefits of integrated reporting. This negative moderating effect implies that prolonged auditor–client relationships may compromise auditor independence, signal governance concerns to market participants, and reduce the credibility of voluntary disclosure initiatives.

### Keywords:

ASEAN-5, audit tenure, corporate governance, firm value, integrated reporting disclosure

*Moderasi Auditor dan Integrated Reporting: Studi pada Negara-Negara ASEAN-5*

## ABSTRAK

Penelitian ini menguji pengaruh pengungkapan pelaporan terintegrasi (PPT) terhadap nilai perusahaan, dengan masa jabatan auditor sebagai variabel moderasi. Sampel penelitian terdiri dari perusahaan pertambangan dan properti yang terdaftar di pasar modal ASEAN-5, menghasilkan 363 observasi pada periode 2021 hingga 2023 melalui teknik purposive sampling. Dengan menggunakan metode regresi data panel, hasil penelitian menunjukkan tidak terdapat hubungan signifikan antara PPT dan nilai perusahaan. Selain itu, masa jabatan auditor terbukti memoderasi hubungan tersebut secara negatif, yang mengindikasikan bahwa masa jabatan auditor yang panjang melemahkan potensi manfaat dari integrated reporting. Efek moderasi negatif ini menyiratkan bahwa hubungan jangka panjang antara auditor dan klien dapat mengurangi independensi auditor, menimbulkan kekhawatiran tata kelola bagi pelaku pasar, serta menurunkan kredibilitas inisiatif pengungkapan sukarela.

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## 1. Introduction

The phenomenon of information asymmetry remains relatively pronounced, as evidenced by the ACFE (2024) survey reporting 183 cases of financial statement misrepresentation in the Asia-Pacific region, with average losses reaching USD 1.2 million. These findings are corroborated by the PwC (2022) survey, which positions Indonesia at the forefront of information asymmetry cases involving financial reporting fraud, followed by Singapore, the Philippines, Vietnam, and Malaysia. Information asymmetry results in suboptimal allocation of corporate resources between principals and agents (García-Sánchez & Noguera-Gámez, 2017), ultimately impacting firm value negatively. Integrated Reporting (IR) serves as a transparency mechanism essential for establishing robust relationships with principals (Abogazia et al., 2024; Bagonza et al., 2024) reducing the adverse effect of information asymmetry. Despite IR implementation across several countries, information asymmetry practices persist and potentially influence firm value due to information gaps that may affect investor decision-making (Bessler et al., 2011; Weli & Betseda, 2021).

Building on this foundation, our study reexamines the linkage between IRD and firm value in five ASEAN markets, with auditor tenure functioning as a moderating variable. Aydoğmuş et al. (2022) demonstrate that global corporations experience intensifying pressures to advance their governance structures and risk communication protocols addressing financial, environmental, social, and governance dimensions, reflecting amplified investor vigilance. Concurrently, the transformative shifts in worldwide economic systems propel organizations to integrate holistic ESG principles alongside traditional financial considerations into both strategic deliberations and capital deployment frameworks (Bagh et al., 2024). Consequently, exploring how IRD influences firm value becomes critically important, particularly in the Southeast Asian region, which has emerged as a prominent global investment destination (Truong, 2025).

IRD has become a subject of extensive research within the accounting literature, yet empirical evidence yields inconsistent findings (Abogazia et al., 2024; Makri & Kabra, 2023; Nurkumalasari et al., 2019; Obeng et al., 2020; Wahl et al., 2020). Prior studies found the positive relationship in IRD -firm value dynamics (Abogazia et al., 2024; Makri & Kabra, 2023; Obeng et al., 2020). Conversely, contradictory findings are reported by Nurkumalasari et al. (2019) and Wahl et al. (2020), who identify an insignificant effect between IRD and firm value. The inconsistent findings regarding the IRD-firm value relationship may be attributed to variations in firm value measurement, proxy selection, sample characteristics, and differing research contexts. Consequently, further investigation into the effect of IRD on firm value remains necessary to provide more comprehensive understanding. These inconclusive findings necessitate examining alternative moderating variables that may explain the divergent results of prior studies, particularly within the Southeast Asian context.

Although companies have published non-financial reports such as IR, investors require validation from external parties, particularly due to the dynamic relationship between companies and investors that results in information asymmetry (Angir & Weli, 2024). External auditors,

especially those with extended tenure, are perceived as capable of providing external assurance regarding the credibility of information disclosed by companies (Amoako et al., 2023). Saleh Aly et al. (2023), Patterson et al. (2019), and Chen et al. (2008) argue that auditors with longer engagement periods acquire extensive experience and knowledge about company operations and industry dynamics. Audit tenure is therefore considered capable of explaining variations in how various financial and non-financial information shapes firm value for stakeholders.

IRD intensity exhibits a positive linear association with firm valuation (Abogazia et al., 2024). This relationship captures agency dynamics between principals and agents, whereby IRD enhances transparency and mitigates information asymmetries (Bagonza et al., 2024), consequently contributing to value creation (García-Sánchez & Noguera-Gámez, 2017; Zhou et al., 2017). Audit tenure functions as a complementary governance mechanism that attenuates information asymmetries, thereby amplifying the value-enhancing effects of non-financial disclosure. Bagh et al. (2024) argue that firm value is not directly attributable to cost-benefit considerations alone, but emerges through complex interactions between non-financial disclosure and complementary factors, including audit tenure. Effective audit mechanisms are essential for corporate oversight in producing IR that drives firm value creation (Aktas et al., 2019; Eisenhardt, 1989; Rossi & Harjoto, 2020).

This study investigates the moderating effect of audit tenure on the relationship between IRD and firm value, an association that remains underexplored in emerging market contexts. While Kuzey et al. (2023) examined sustainability reporting's impact on firm value with audit tenure as a moderator, our research extends this literature by exploring how the integration of financial and non-financial disclosures influences firm valuation, with audit tenure hypothesized to amplify this relationship. Prior literature has predominantly focused on standalone non-financial reporting effects, whereas this study employs IR as a comprehensive disclosure mechanism that, according to Permatasari & Narsa (2022), synthesizes financial and non-financial information. We select IRD as our focal variable given its superior value relevance relative to traditional sustainability reports when combined with accounting information (Permatasari & Narsa, 2022).

Furthermore, in contrast to Kuzey et al. (2023), who examined non-financial firms across a mixed sample of developed and developing countries, this study focuses exclusively on five ASEAN economies (Indonesia, Malaysia, Singapore, Thailand, and Philippines) that represent emerging global investment destinations. ASEAN-5 countries also constitute a compelling research setting characterized by heightened institutional and market-driven imperatives for substantive environmental disclosure compliance (Lina & Rohmah, 2024). We specifically target environmentally sensitive sectors—mining and real estate—to provide a more focused analytical framework. This targeted approach enables deeper insights into IRD effectiveness within homogeneous institutional contexts and high-impact industries, thereby offering enhanced theoretical precision and practical relevance for emerging market stakeholders.

We examine mining and property companies from five ASEAN countries (Indonesia, Singapore, Malaysia, Philippines, and Thailand) over 2021-2023, using Bloomberg data and

annual reports analyzed through fixed effects models in STATA 14. Our findings reveal no significant IRD-firm value relationship, while audit tenure negatively moderates this association. This study contributes to firm valuation and integrated reporting literature in two ways. First, investors in Big Five ASEAN markets do not perceive IR as value-relevant for investment decisions, reflecting nascent IRD implementation and limited auditor assurance frameworks that compromise disclosure credibility. Second, extended audit tenure significantly weakens the IRD-firm value relationship, suggesting independence concerns from extended interactions produce unfavorable market signals. These findings recommend periodic auditor rotation in real estate and mining sectors to maintain audit quality and market confidence.

## **2. Theoretical framework and hypotheses development**

### **Agency theory**

Agency theory addresses the mitigation of potential conflicts of interest between firm owners and management (Jensen & Meckling, 1976). This theoretical framework facilitates understanding of the relationship between principals (owners or investors) and agents within corporate structures (Eisenhardt, 1989). The theory explicates the dynamics wherein principals delegate specific authority to agents to execute tasks on their behalf (Aktas et al., 2019; Moscariello et al., 2019; Rossi & Harjoto, 2020). This relationship extends beyond firm boundaries to encompass broader social contexts involving institutional counterparts, competitors, and policymakers (Panda & Leepsa, 2017).

Agency theory posits that the divergence between ownership and control structures creates opportunities for information imbalances between stakeholders (Jensen & Meckling, 1976). Nevertheless, certain principals demonstrate capacity to bridge these informational divides through their expertise, incentives, and cognitive resources, subsequently elevating transparency standards (Donnelly & Mulcahy, 2008). This informational disparity inherent in principal-agent relationships provides theoretical justification for IR emergence, which synthesizes sustainability-oriented (non-financial) content with conventional financial statements (Pertiwi et al., 2022; Raimo et al., 2020; Shahria, 2023), effectively narrowing communication gaps between corporate ownership and executive management. Organizations therefore implement such proactive disclosure mechanisms to strengthen stakeholder confidence and attenuate agency-related vulnerabilities (Jensen & Meckling, 1976; Watts & Zimmerman, 1983). Agency theory provides the theoretical foundation for understanding how IRD influences firm value, with this relationship potentially strengthened by audit tenure.

### **IRD and firm value**

Information asymmetry impairs investors' ability to identify viable investment targets, thereby constraining firm value creation (Pujiastuti et al., 2024). Such asymmetries emerge as detrimental byproducts of agency conflicts within organizations. IRD serves as a mechanism to mitigate information asymmetry by providing investors with comprehensive disclosure that enhances

investment confidence and signals corporate creditworthiness. This theoretical framework is supported by García-Sánchez & Noguera-Gámez (2017) and Zhou et al. (2017), who demonstrate that IRD effectively reduces information asymmetries and facilitates value creation processes. The evolution of corporate reporting formats has led to diverse disclosure types, often creating confusion between sustainability reports and CSR disclosures in decision-making and value creation processes (Boodhun & Jugurnath, 2023).

This confusion can be mitigated through IRD, which incorporates sustainability reporting components alongside additional information to create a holistic reporting framework (IIRC, 2013). Velte (2022) posits that IR's multi-capital framework—encompassing natural, manufactured, intellectual, relational, and financial resources—furnishes complementary disclosures that facilitate principals' capacity to mitigate informational disparities between corporate management and capital providers. Environmental and social transparency mechanisms serve as effective instruments for attenuating agency expenditures (Loh et al., 2017). Islam (2020) documented that IRD significantly enhances firm value by stimulating integrated thinking within organizations and improving resource utilization efficiency. The study demonstrates that IRD influences operational performance, financial outcomes, and market growth prospects. All things considered, improved non-financial disclosure, like IR, has a favorable effect on share prices by strengthening investors' perceptions of the company's future prospects (Hichri, 2023; Pavlopoulos et al., 2019; Zhou et al., 2017). Building on this theoretical rationale and corroborating empirical observations, we formulate the ensuing hypothesis:

H<sub>1</sub>: IRD has a positive impact on firm value.

### **Audit tenure as a moderator between IRD and firm value**

The adoption of IR contributes to firm value enhancement by strengthening transparency mechanisms and fostering stakeholder trust (Alatawi et al., 2025; Hichri, 2023). Sustained audit engagements contribute to enhanced audit quality outcomes, creating favorable implications for corporate valuation (Brooks et al., 2022; Jادیyappa et al., 2021). Prior studies (Brooks et al., 2022; Jادیyappa et al., 2021) also add that this relationship emerges through auditors' progressive accumulation of client-specific expertise and operational understanding, ultimately strengthening the precision and credibility of financial reporting processes. However, long-term client-auditor relationships may elevate misstatement risks arising from impaired auditor objectivity and compromised professional independence (Soroushyar, 2023). Empirical evidence reveals that audit tenure positively moderates relationships between CSR practices and firm value (Brooks et al., 2022), as well as between audit fees and banking sector performance, with extended engagements strengthening these associations (Ogundele et al., 2025). Similarly, in sustainability reporting contexts, longer audit tenure enhances the value relevance of sustainability report through improved credibility (Kuzey et al., 2023).

These consistent patterns across related disclosure domains suggest that audit tenure may analogously moderate the IRD-firm value relationship. We theorize that extended auditor-client relationships enhance integrated report reliability and credibility, thereby amplifying their positive valuation effects. This hypothesis is grounded in established evidence linking longer audit tenure with superior audit quality and financial reporting accuracy—core components of comprehensive integrated reporting frameworks (Brooks et al., 2022; Jadiyahappa et al., 2021; Kuzey et al., 2023; Ogundele et al., 2025). A professional relationship exists between principals (owners and shareholders) and agents (management), wherein the principal's firm becomes the auditee and delegates authority to auditors to perform duties on behalf of the principal. This relationship can be explained through agency theory (Aktas et al., 2019; Eisenhardt, 1989; Rossi & Harjoto, 2020). The audit function operates as a governance mechanism that attenuates informational disparities between organizational principals and their appointed agents. Conversely, regarding short audit tenure, Almutairi et al. (2009) explain that brief audit engagements potentially generate substantial information asymmetry due to auditors' insufficient familiarity with the company and industry dynamics. Therefore, audit tenure within a firm plays a crucial role in shaping investor perceptions derived from audit outcomes (Su et al., 2016). Based on the aforementioned discussion, the second hypothesis of this study is:

H<sub>2</sub>: Audit tenure moderates the relationship between IRD and firm value.

Figure 1 below depicts the research model.

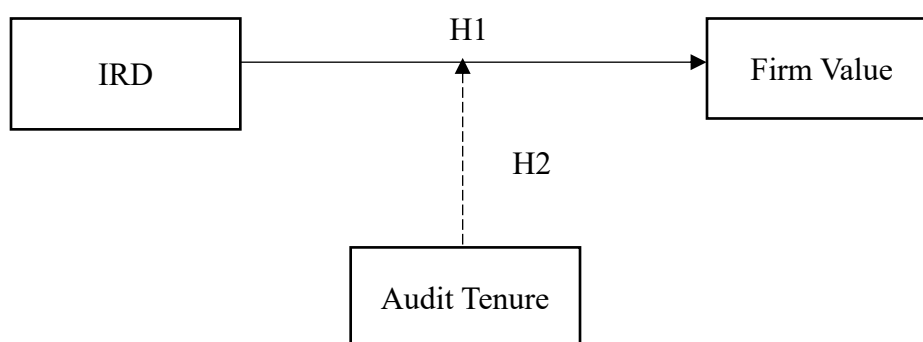


Figure 1. Research framework

### 3. Research method

#### Sample and data

This study focuses on examining companies with high environmental impact, specifically mining and property sectors, listed in ASEAN-5 capital markets according to international sector codes (MSCI, 2024). The research period spans 2021-2023 to mitigate potential bias arising from reduced consumer purchasing power in the property sector during the COVID-19 pandemic, which

adversely affected corporate revenues (Wiradinata et al., 2022). The rationale for selecting these countries aligns with Chairani & Siregar (2021), who demonstrate that these five nations exhibit the highest economic development within ASEAN and share similar geographical and social characteristics. The selection of mining and property & real estate sectors is predicated on their extensive exploitation of natural resources, which directly correlates with integrated reporting's emphasis on sustainability matters, particularly natural resource stewardship.

A purposive sampling approach facilitated sample extraction from the predetermined population base. Empirical data originated from secondary archival sources encompassing annual corporate disclosures accessible through official organizational platforms and Bloomberg's comprehensive database, generating an aggregate of 363 entity-year observations. The sectoral distribution comprises 57 mining companies representing 47.11% of the total sample, while the property sector accounts for 64 companies or 52.89% of the sample. This study adopts the MSCI (2024) sector classification framework to ensure consistent sectoral categorization across the five target countries. Table 1 outlines the sample derivation process, screening protocols applied to the population, and the resulting observational units analyzed herein. Subsequently, Table 2 exhibits all mining and property companies by country.

Table 1. Sampling criteria

No	Criteria	Total
1.	The study focuses on companies operating in mining and real estate sectors, classified according to MSCI international sector codes (MSCI, 2024).	758
2.	Companies not presenting complete ESG disclosure (Bloomberg database)	(633)
3.	Firms with inaccessible annual reports through stock exchange databases or official corporate websites over the 2021-2023 period.	(4)
Sample Total		121
Observation Total (3 years)		363

Table 2. Sample distribution

Country	Number of firms	Percentage (%)
Indonesia	22	18.18
Malaysia	20	16.53
Singapore	33	27.27
Thailand	16	13.22
Philippines	30	24.79
<b>Total</b>	<b>121</b>	<b>100</b>

### Variable and measurement

This investigation employs four distinct variable categories, namely dependent, independent, moderating, and control variables, to accommodate and examine the proposed research framework. Variable operationalization draws upon established literature deemed pertinent for ensuring measurement precision and construct validity. Firm value serves as the dependent variable in this analysis, operationalized through Tobin's Q ratio. The Tobin's Q metric represents the summation of market capitalization (share price multiplied by outstanding shares) and total

liabilities book value, divided by total assets book value (Dang et al., 2020; Lee & Yeo, 2016; Wahl et al., 2020). This proxy demonstrates appropriateness given the market-oriented nature of the study's independent construct and its extensive validation in prior empirical research (Barth et al., 2017; Lee & Yeo, 2016; Nurkumalasari et al., 2019).

The independent variable employed in this investigation comprises IRD, operationalized through comprehensive content analysis of constituent elements and sub-elements aligned with IIRC (2013) framework and Lee & Yeo (2016) methodology, encompassing eight primary indicators across 44 distinct assessment criteria. Our analytical approach involves systematic evaluation of information content disclosed by corporations, drawing upon the methodological foundation established by Ibrahim (2023). The scoring mechanism assigns a binary value when integrated reporting indicators are evidenced within corporate annual disclosures, we will assign value 1, while absence of such indicators receives a 0 value. For this current study, IRD is subjected to potential measurement bias and inter-coder reliability of content analysis. To address this issue, we used 4 different persons to perform the coding for the IRD variable. Then, in the last step, the head of research will do some sampling for the coder result to match what the head of research comprehends and the outcome of the analysis content. After selecting four alternative coder outcomes per coder, it is determined that the output is same.

Audit tenure serves as the moderating variable, conceptualized as the temporal duration characterizing the professional relationship between client organizations and external auditing entities concerning both assurance and non-assurance service provision through contractual arrangements, quantified by the aggregate years of engagement continuity (Kuzey et al., 2023). Our measurement protocol for audit tenure involves calculating the cumulative years of professional engagement between corporate clients and their respective auditors. The tenure quantification commences with an initial value of unity during the inaugural year of engagement, with successive annual increments of one unit for subsequent years of continued partnership.

Three control variables are incorporated into the research model: profitability, firm size, and leverage. The selection of these control variables is grounded in their demonstrated significance in influencing corporate attractiveness to investors and shareholders (Crisóstomo et al., 2011), while simultaneously accounting for additional factors hypothesized to be pertinent in explaining the relationship between IRD and firm value. Profitability, represented by ROA, serves as a control variable given its established influence on corporate valuation documented in prior literature (Husna & Satria, 2019; Jaya, 2020). This metric is computed by dividing net income by total corporate assets (Makri et al., 2014). Firm size constitutes a measurable attribute derived from total assets at fiscal year-end (Angeline et al., 2020; Puspitaningtyas, 2019) or alternatively assessed through sales revenue or employee count (Jaya, 2020). This control variable is obtained through the natural logarithm of total assets (Ln Total Assets). The final control variable, leverage, is measured utilizing the debt-to-equity ratio (DER) following established methodologies from previous investigations (Munawar, 2019; Vitolla et al., 2020; Zuhroh, 2019). Full details regarding the types of variables, measurement indicators, and reference sources are presented in Table 3.

Table 3. Summary of research variables and measurement

Acronym	Variables	Measurement	Type	Reference
Tobin's Q	Firm Value	Market Value Equity (MVS) + Total Liability/Total Assets	Dependent Variable	Aydoğmuş et al. (2022)
IRD	Integrated Reporting Disclosure	The weighted score of IRD provides by indexing IIRC the score range 0-44	Independent Variables	IIRC (2013)
AuTen	Audit Tenure	Total Engagement in Year between Auditor and Auditee	Moderating Variable	Rahman et al. (2020)
LEV	Leverage	(Total Liability/Total Equity) x 100%	Control Variables	Vitolla et al. (2020)
ROA	Firm Performance	ROA = Net Income/Total Assets	Control Variables	Makri et al. (2014)
SIZE	Firm Size	Natural Logarithm of Total Assets	Control Variables	Nurhikmawaty et al. (2020)

### Data analysis technique

This investigation employs panel data regression estimation methods employing Stata 14 software. Several sequential procedures precede the analytical examination in this research. Initially, descriptive statistical analysis is conducted to assess central tendency measures and data distribution patterns. Subsequently, we determine the optimal panel data regression estimation approach among three alternatives: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The selection process for the most appropriate regression estimation framework involves executing Chow tests, Hausman tests, and Lagrange Multiplier tests. Finally, classical assumption validation is performed to ensure the research model yields representative outcomes. This study implements two analytical panels with two supplementary panels serving as robustness checks. Upon identifying the superior model specification for each framework, regression analysis is executed to examine inter-variable significance relationships. Panel 1 examines the first hypothesis incorporating IRD and audit tenure as explanatory variables. In Panel 2, the interaction between IRD and audit tenure is incorporated into the model specification to test the second hypothesis. Panels 1 and 2 are represented through the following equation models 1 and 2:

#### Model 1:

$$\text{Tobins' } Q_{i,t} = \alpha + \beta_1 \text{ IRD}_{i,t} + \beta_2 \text{ Tenure}_{i,t} + \beta_3 \text{ LEV}_{i,t} + \beta_4 \text{ ROA}_{i,t} + \beta_5 \text{ SIZE}_{i,t} + \varepsilon$$

**Model 2:**

$$\text{Tobins' } Q_{i,t} = \alpha + \beta_1 \text{ IRD}_{i,t} + \beta_2 \text{ Tenure}_{i,t} + \beta_3 \text{ LEV}_{i,t} + \beta_4 \text{ ROA}_{i,t} + \beta_5 \text{ SIZE}_{i,t} + \beta_6 \text{ IRD} * \text{Tenure}_{i,t} + \varepsilon$$

where:

Tobins $Q_{i,t}$	= Firm value of company $i$ in year $t$
$\text{IRD}_{i,t}$	= IRD score of company $i$ in year $t$
$\text{Tenure}_{i,t}$	= Total years of audit engagement $i$ in year $t$
$\text{IRD} * \text{Tenure}_{i,t}$	= Interaction between IRD and audit tenure $i$ in year $t$
$\text{LEV}_{i,t}$	= Debt to equity ratio $i$ in year $t$
$\text{ROA}_{i,t}$	= Return on asset $i$ in year $t$
$\text{SIZE}_{i,t}$	= Natural logarithm of total assets $i$ in year $t$

**4. Results and discussion**

The final sample comprises 121 companies yielding 363 firm-year observations spanning the 2021-2023 period. This section employs descriptive statistics to elucidate data characteristics through measures of central tendency and dispersion, encompassing mean values, standard deviations, maximum and minimum thresholds. Subsequently, correlation analysis examines inter-variable relationships within the research framework prior to hypothesis testing. Panel data regression analysis serves as the conclusive analytical procedure to determine empirical support for the proposed hypotheses.

**Descriptive statistics**

The descriptive statistical analysis presented in Table 4 summarizes central tendencies, dispersion measures, and range values across all research variables. Tobin's Q demonstrates an average value of 1.0423 (minimum = 0.02, maximum = 122.84), indicating that the market valuation of equity and liabilities across the sample firms exceeds their respective book values of total assets. This above-unity average suggests that mining and property sector equities within the ASEAN-5 countries approach parity while exhibiting tendencies toward market overvaluation. The lowest Tobin's Q ratio was recorded by PT Bakrieland Development Tbk. (Indonesia) during 2021-2022, whereas Enx Energy Corporation (Philippines) achieved the highest ratio in 2021. The standard deviations for Tobin's Q and IRD register 6.5487 and 7.5859, respectively, revealing greater variability in IRD compared to firm valuation metrics. This dispersion pattern indicates substantial heterogeneity in integrated reporting disclosure practices among mining and property enterprises across Indonesia, Malaysia, Singapore, Thailand, and the Philippines. IRD exhibits a mean score of 33.801, ranging from a minimum of 10 to a maximum of 44 disclosure items. Mining and property companies within the ASEAN-5 region demonstrate considerable commitment to integrated reporting transparency, as evidenced by disclosure rates exceeding 75% of total reporting elements stipulated by the IIRC (2013) framework.

Table 4. Descriptive statistics

	Obs	Mean	Maximum	Minimum	Std. Dev.
Tobin's Q	363	1.0423	122.84	0.02	6.5487
IRD	363	33.801	44	10	7.5859
Tenure	363	9.3278	22	1	5.2210
IRD*Tenure	363	316.399	924	22	197.891
LEV	363	0.9726	24.4725	-25.5853	2.1232
ROA	363	3.3713	55.73	-56.49	9.4932
SIZE	363	14.703	22.3255	7.3545	1.8029

Several corporations demonstrate comprehensive IRD across all dimensions, exemplified by Malaysia's Yinson Holdings BHD in 2023, Philippines-based SM Prime Holdings throughout the observation period (2021-2023), and Thailand's Supalai PCL in 2023. Conversely, Pryce Corporation from the Philippines exhibited the most limited IRD in 2022, revealing merely 10 disclosure items from the complete 44-item framework. The trajectory of IRD intensity within annual reports exhibits an upward trend, evidenced by an average enhancement rate of 0.95% as illustrated in Figure 2. This pattern suggests heightened corporate recognition regarding IR's significance in annual reporting as a value creation mechanism. These findings align with García-Sánchez & Noguera-Gámez (2017) assertion that comprehensive IRD facilitates investor comprehension of annual reports while mitigating information asymmetry challenges between agents and principals.

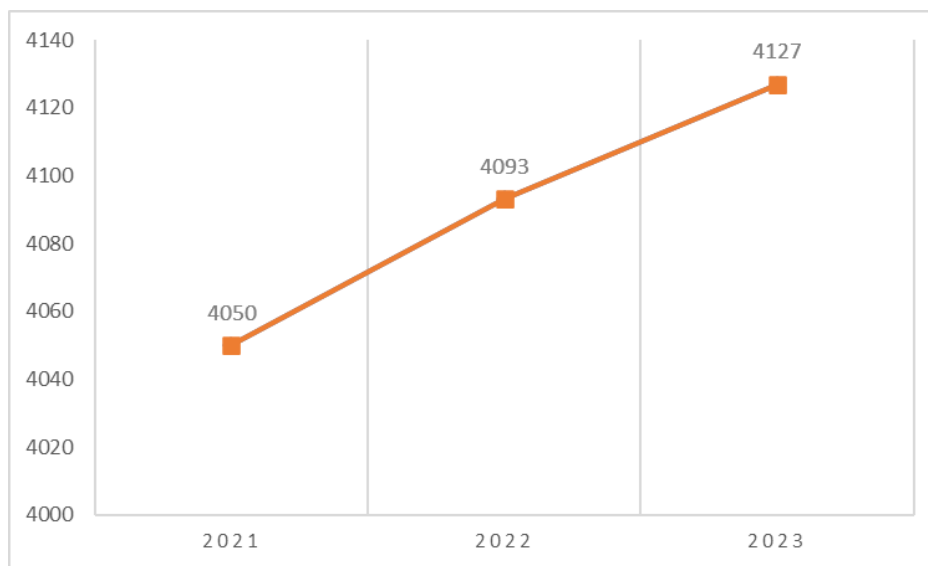


Figure 2. Total movement of IRD

Audit tenure, representing the duration of auditor-client engagement relationships, demonstrates a mean value of 9.3278 (minimum = 1, maximum = 22). The average audit tenure indicates that auditor-client associations predominantly fall within the extended engagement category, exceeding the nine-year threshold established by Johnson et al. (2002). This finding suggests potential challenges to auditor independence, aligning with Al-Thuneibat et al. (2011),

who argued that auditor objectivity becomes compromised through excessive familiarity and over-report development between auditors and their clients within specific industry contexts. Regarding control variables, leverage (LEV), profitability (ROA), and firm size (SIZE) exhibit mean values of 0.9726, 3.3713, and 14.703, respectively. The average leverage ratio, measured through debt-to-equity calculations, reveals sub-unity values, indicating that equity financing predominates over debt obligations among ASEAN-5 mining and property enterprises. This capital structure configuration suggests relatively robust financial positioning and enhanced debt servicing capabilities. Profitability metrics demonstrate that mining and property corporations across the five ASEAN economies maintain satisfactory operational effectiveness in generating returns through comprehensive asset utilization strategies. Finally, mining and property enterprises spanning Indonesia, Malaysia, Singapore, Thailand, and the Philippines exhibit substantial organizational scale with relatively modest inter-firm variations, as evidenced by the standard deviation of 1.8029, indicating considerable homogeneity in corporate magnitude across the regional sample.

### **Correlation analysis**

Table 5 presents the inter-variable correlation matrix conducted prior to hypothesis testing procedures. Several noteworthy correlational patterns emerge from this preliminary analysis, particularly a statistically significant yet modest negative association between IRD and firm value (Tobin's Q), exhibiting a correlation coefficient of -0.1706 at the 5% significance threshold. This inverse relationship suggests that enhanced IR quality corresponds with diminished firm valuation metrics, albeit the magnitude of this association remains relatively weak. Such findings indicate that standalone IR implementation proves insufficient for substantive value generation in accurately portraying organizational circumstances. Additionally, profitability (ROA) and firm size (SIZE) demonstrate statistically significant negative correlations with firm valuation (Tobin's Q) at the 5% confidence level, registering coefficients of -0.3757 and -0.2464, respectively. These correlational patterns suggest that elevated profitability ratios and increased organizational magnitude correspond with reduced corporate valuation outcomes.

IRD demonstrates statistically significant positive associations with both the interaction term between IRD and audit tenure (IRD\*Tenure) and profitability (ROA), exhibiting moderate and weak correlational strengths, respectively. Financial leverage (LEV) manifests a significant positive relationship with firm size (SIZE). The interaction variable IRD\*Tenure exhibits robust positive correlation with audit tenure (Tenure) while displaying modest positive association with profitability (ROA). Remaining correlational relationships demonstrate negligible magnitudes and lack statistical significance. The comprehensive Pearson correlation matrix reveals that associations among dependent, independent, moderating, and control variables remain consistently weak; however, these correlational patterns do not determine the significance of regression relationships between variables.

Table 5. Pearson correlation matrix

	<b>Tobins'Q</b>	<b>IRD</b>	<b>IRD*Tenure</b>	<b>Tenure</b>	<b>LEV</b>	<b>ROA</b>	<b>SIZE</b>
Tobins'Q	1.0000						
IRD	-0.1706*	1.0000					
IRD*Tenure	-0.0709	0.4185*	1.0000				
Tenure	-0.0185	0.0279	0.8949*	1.0000			
LEV	0.0664	-0.0210	-0.0044	0.0014	1.0000		
ROA	-0.3757*	0.2174*	0.1130*	0.0490	-0.0087	1.0000	
SIZE	-0.2464*	0.0526	0.0572	-0.0027	0.1190*	0.0764	1.0000

Note: \* Represent significance at 5%

### Hypothesis test

Model specification diagnostics were employed to identify the most appropriate analytical framework for this investigation. Through sequential specification testing encompassing the Chow test, Hausman test, and Lagrange Multiplier test, our analysis determined that the fixed effects model (FEM) represents the optimal panel data regression estimation approach for this study. Subsequently, classical assumption tests were conducted to evaluate model robustness and ensure adherence to BLUE (Best Linear Unbiased Estimator) properties. Normality test was performed utilizing the Shapiro-Wilk test, while multicollinearity test was executed through VIF value. Given the presence of multicollinearity problems, the dataset underwent centering transformation as a remedial intervention. Following this adjustment, autocorrelation and heteroscedasticity tests were administered to verify model adequacy. The final specification successfully satisfied all classical regression assumptions, thereby validating its suitability for hypothesis examination, with empirical outcomes synthesized and presented in Table 6.

Table 6. Results of hypotheses testing

<b>Variables</b>	<b>Panel 1 (Direct effect)</b>		<b>Panel 2 (Moderation effect)</b>	
	<b>Coef.</b>	<b>p value</b>	<b>Coef.</b>	<b>p value</b>
<b>Tobins'Q</b>				
<b>IRD</b>	0.003	0.343	0.0009	0.807
<b>Tenure</b>	-0.020	0.000		
<b>IRD*Tenure</b>			-0.0005	0.000
<b>LEV</b>	-0.029	0.354	-0.027	0.395
<b>ROA</b>	0.018	0.000	0.018	0.000
<b>SIZE</b>	-0.437	0.272	-0.437	0.236

Hypothesis testing across Panel 1 and Panel 2 yields IRD coefficients of 0.003 and 0.0009 respectively for firm value, both exhibiting p-values exceeding 5%. These empirical results substantiate that IRD exerts no statistically significant influence on firm valuation, thereby rejecting H1. Conversely, audit tenure demonstrates a statistically significant negative association with firm value ( $\beta = -0.020$ ; p-value = 0.000). This finding suggests that the longer the auditor-client engagement, the more adverse the corporate valuation will be. Market participants generally perceive extended audit engagements as compromising auditor independence, consequently diminishing stakeholder confidence in corporate future prospects. Regarding the moderation effect presented in Panel 2, the interaction coefficient registers -0.0005 with a p-value of 0.000. This

outcome indicates that the interaction between IRD and audit tenure exhibits a significantly negative impact on corporate value, thus supporting H2. These findings demonstrate that auditors tasked with providing assurance over IR report while maintaining extended tenure relationships prove counterproductive to firm valuation enhancement.

This phenomenon occurs because, although corporations have disclosed IR statements, when auditors conducting IR attestation engagements maintain longer tenures with their clients, investors perceive diminished IRD credibility due to potential compromised professional relationships between auditors and auditees, ultimately generating adverse implications for corporate valuation. The three control variables—LEV, ROA, and SIZE—demonstrate heterogeneous effects on firm value proxied by Tobin's Q. Only ROA consistently exhibits positive and statistically significant associations with firm value across Panel 1 ( $\beta = 0.018$ ; p-value = 0.000) and Panel 2 ( $\beta = 0.018$ ; p-value = 0.000). This finding indicates that mining and property enterprises in ASEAN-5 countries with superior profit-generating capabilities receive heightened market appreciation. Conversely, LEV demonstrates negative but statistically insignificant relationships in both Panel 1 ( $\beta = -0.029$ ; p-value = 0.354) and Panel 2 ( $\beta = -0.027$ ; p-value = 0.395), while SIZE similarly exhibits negative but non-significant associations across Panel 1 ( $\beta = -0.437$ ; p-value = 0.272) and Panel 2 ( $\beta = -0.437$ ; p-value = 0.236).

### Additional test

We perform one additional test to check the robustness of the findings.

Table 7. Additional test (Winsorization)

Variables	Panel 1 (Direct effect)		Panel 2 (Moderation effect)	
	Coef.	p value	Coef.	p value
Tobins'Q				
IRD	-0.002	0.434	0.0011	0.744
Tenure	-0.016	0.002		
IRD*Tenure			-0.0004	0.007
LEV	-0.014	0.405	-0.013	0.433
ROA	0.007	0.000	0.007	0.000
SIZE	-0.076	0.057	-0.079	0.053

We conducted an additional test by applying winsorization to the firm value variable, represented by Tobin's Q, at a 10% level. In general, the findings presented in Table 7 show identical results to the hypothesis testing results. The only difference is in the results of the test of the direct effect of IRD on firm value, which shows a different direction of influence. In the hypothesis test in Table 6, the effect of IRD on firm value is positive, meaning that higher IRD also increases firm value, although the effect is not significant. Conversely, in the additional test of the direct effect, the direction is negative, meaning that firm value increases as IRD decreases, but again, the effect is not significant. After the 10% winsorization, all data for firm value becomes more normal due to the removal of all outliers, as shown in Figure 3.

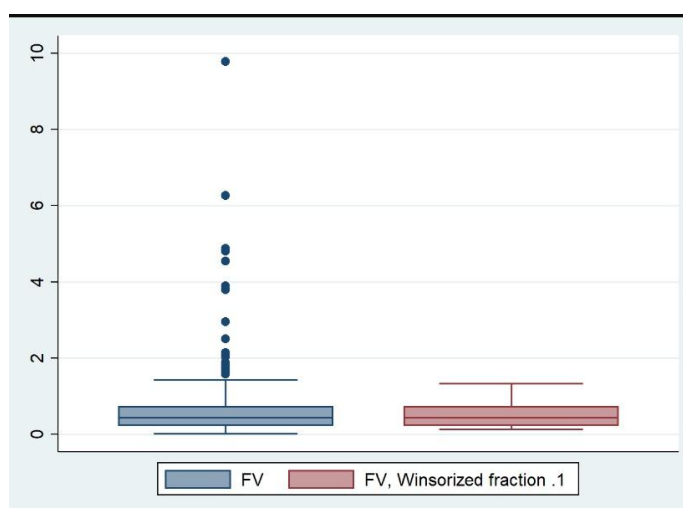


Figure 3. Result of Winsorization for Firm Value

## Discussion

### *IRD influence on firm value*

Our empirical findings reveal that market participants across ASEAN-5 countries do not perceive IRD as a value-relevant determinant when evaluating investment prospects in mining and property companies. Given their classification as environmentally intensive sectors, mining and property companies exhibit heightened operational sensitivity relative to other industries (Huang & Ge, 2024). This environmental exposure compels firms within these dual sectors to enhance disclosure practices (Obeng et al., 2020), strategically communicating positive environmental stewardship narratives to demonstrate their active commitment to sustainability, despite the inherent ecological consequences of their business operations. Contrary to agency theory predictions, which posit that IRD serves as an information asymmetry reduction mechanism enabling investors to conduct more objective firm valuations (Abogazia et al., 2024), our evidence from Indonesia, Malaysia, Singapore, Thailand, and the Philippines contradicts this theoretical foundation, suggesting limited market recognition of IR's informational utility in these high-impact environmental sectors.

Our empirical findings align with the conclusions drawn by Wahl et al. (2020), Pusparini et al. (2023), and Nurkumalasari et al. (2019), while contrasting sharply with the evidence presented by Abogazia et al. (2024), Lee & Yeo (2016), and Makri & Kabra (2023). Specifically, Wahl et al. (2020) examined international corporations that voluntarily disclosed IRD and were catalogued in the IIRC database for 2018, demonstrating that voluntary IRD exhibits no statistically significant association with firm valuation metrics. This phenomenon stems from the elevated transparency levels characterizing firms that voluntarily adopt IRD practices, thereby rendering information asymmetry irrelevant within the principal-agent relationship framework. Consequently, the presence or absence of supplementary reporting mechanisms such as IR generates equivalent investor perceptions regarding corporate worth assessment. Corroborating these insights,

Nurkumalasari et al. (2019) identified parallel outcomes, attributing the negligible impact of IRD on firm value to the heterogeneous formatting structures of integrated reports, which create interpretational challenges for investors and shareholders, ultimately complicating their decision-making processes.

The substantive content of IRD contributes to explaining the absence of significant influence between IRD and firm value, particularly within emerging markets. This phenomenon receives empirical support from Pusparini et al. (2023), who identify several inherent limitations that prevent IR from serving as a foundational instrument for investors to assess corporate prospects. Firstly, despite IR being conceptualized as an amalgamation of financial and non-financial disclosures (Permatasari & Narsa, 2022), the predominant emphasis on non-financial dimensions renders investors more inclined toward conventional financial statements for conducting fundamental enterprise analysis. Secondly, numerous value-influencing factors remain unaccommodated within IR frameworks, encompassing organizational performance metrics, sector-specific competitive dynamics, prevailing market trajectories, and investor sentiment fluctuations. Furthermore, the absence of comprehensive regulatory frameworks and standardization protocols governing IRD—whether integrated within annual reports or presented as standalone communications—creates additional implementation challenges.

#### *Audit tenure moderates IRD influence on firm value*

Contemporary internal audit functions have experienced a paradigmatic transformation, evolving from their conventional focus on traditional financial reporting toward comprehensive engagement with sustainability-oriented non-financial disclosures. Amoako et al. (2023) demonstrate that internal audit capabilities serve as catalysts for enhancing corporate value through deeper sustainability comprehension and strategic integration. Nevertheless, given the inherent organizational proximity of internal audit functions, capital markets and institutional investors necessitate independent external assurance mechanisms, particularly through external auditor validation, to establish adequate confidence in IRD communications (Amoako et al., 2023). Empirical evidence substantiates that the interaction between auditor tenure and IRD practices exerts a significantly negative influence on firm valuation metrics. These findings corroborate the moderating role of extended audit engagements in attenuating the value-enhancing potential of IRD within the mining and property sectors across the five primary ASEAN economic jurisdictions.

These empirical results diverge from Kuzey et al. (2023), who documented that audit tenure enhances the sustainability-firm value nexus. Kuzey et al. (2023) investigated a heterogeneous sample spanning 50 nations with relatively balanced representation between developed and developing economies. Their dataset consequently exhibited more uniform distribution and superior representational adequacy across diverse economic contexts. Conversely, our investigation concentrates on the ASEAN-5 countries, comprising four emerging economies and one developed nation, resulting in sample characteristics that predominantly reflect demographic

and regulatory environments with greater institutional flexibility regarding IRD implementation compared to developed countries. This compositional difference generates contrasting moderation trajectories relative to Kuzey et al.'s (2023) findings.

Descriptive statistical analysis reveals that the mean engagement duration for mining and property companies across the ASEAN-5 nations reaches 9.3 years. Such prolonged contractual arrangements between auditing firms and clients pose substantial threats to external auditor independence due to the development of intimate professional relationships between contracting parties. This observation aligns with the empirical evidence provided by Saleh Aly et al. (2023), who documented stakeholder concerns regarding audit engagements exceeding nine years, indicating deteriorating perceptions of audit quality among market participants. Complementing these findings, Abu Afifa et al. (2021) established that extended audit relationships, particularly those surpassing the nine-year threshold, generate adverse consequences for organizational performance and shareholder confidence levels. These empirical assertions substantiate real-world market conditions in which numerous mining and property corporations operating in Indonesia, Malaysia, Singapore, Thailand, and the Philippines maintain excessively protracted auditor relationships, thereby positioning audit tenure as a detrimental mechanism in firm value creation through information disclosure channels, such as IR.

## **5. Conclusion**

This study aims to furnish empirical validation of the influence of IRD on firm value, with audit tenure serving as a moderating variable. Utilizing ASEAN-5 countries (Indonesia, Malaysia, Singapore, Thailand, and the Philippines) as the research context and employing panel data regression through fixed effect model (FEM), this study presents several empirical evidences. Initially, our analysis reveals that IRD demonstrates no statistically significant association with firm value. Subsequently, audit tenure exhibits a negative moderating influence on the IRD-firm value nexus. Multiple theoretical justifications explain the absence of IRD impact on firm value, encompassing: the heterogeneous nature of IRD formatting that complicates investor and stakeholder decision-making processes; the disproportionate emphasis on non-financial disclosures within IRD content; the possibility that firm value responds to factors beyond those encapsulated in IRD communications; and the current absence of comprehensive regulatory frameworks and standardized protocols for IRD implementation. The weakening effect of audit tenure on the IRD-firm value relationship stems from the deterioration of auditor independence as engagement duration extends, thereby compromising the credibility enhancement that IRD purports to provide.

This research contribution is twofold in advancing the body of knowledge regarding firm value, particularly within the ASEAN-5 economic contexts. First, from a theoretical perspective, this investigation represents among the limited empirical endeavors that examine the expanded influence of external auditing functions within non-financial disclosure frameworks. Although the moderation analysis yields directionally contrary outcomes to initial expectations, this

examination opens innovative pathways for subsequent research by demonstrating that auditor tenure constitutes a double-edged mechanism for corporations when inadequately managed. Second, our empirical evidence demonstrates that IRD fails to constitute a value-relevant consideration for investors and stakeholders in their capital allocation decisions. Paradoxically, audit tenure, theoretically designed as a governance mechanism to enhance IRD credibility in developing markets, actually undermines corporate value creation. Consequently, mining and property enterprises across ASEAN-5 countries, as well as regulatory authorities, must strengthen IRD standards and enforcement mechanisms while implementing more stringent auditor rotation requirements, particularly for environmentally impactful sectors such as mining and property, to preserve favorable market perceptions and reporting credibility.

This research recognizes multiple constraints that warrant consideration for subsequent investigations. First, our study employs content analysis methodology to measure IRD, which inherently introduces subjectivity concerns in the evaluation process. Future research endeavors could examine IRD utilizing third-party provided datasets or investigate alternative variables accessible through established research databases including Bloomberg, Refinitiv Eikon, and comparable platforms. Such approaches would enhance both the validity and reliability of research data collection procedures. Second, this investigation utilizes the five ASEAN economies as the research context, specifically encompassing Indonesia, Malaysia, Singapore, Thailand, and the Philippines. While we acknowledge the analytical advantages inherent in cross-country examination, the proportional distribution between emerging and developed economies represents a potential factor contributing to the non-significant findings observed in the current study. Subsequent research could pursue investigations comparing two countries representing developed versus emerging market contexts, or alternatively employ a broader country sample while maintaining careful attention to the balanced representation of developed and emerging economies.

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### **References**

- Abogazia, A. H., Hashim, H. A., Salleh, Z., & Ettish, A. A. (2024). The moderating effect of external financing on the relationship between integrated reporting and firm value in Egypt. *Journal of Financial Reporting and Accounting*, 22(5), 1380-1409. <https://doi.org/10.1108/JFRA-05-2022-0195>
- Abu Afifa, M. M. A., Saleh, I. H., & Haniah, F. F. (2021). Does earnings management mediate the relationship between audit quality and company performance? Evidence from Jordan. *Journal of Financial Reporting and Accounting*, 21(3), 1985-2517. <https://doi.org/10.1108/jfra-08-2021-0245>

- ACFE. (2024). The Nations Occupational Fraud 2024: A Report to the Nations. Retrieved from January 17, 2024, from <https://legacy.acfe.com/report-to-the-nations/2024/>
- Aktas, N., Andreou, P. C., Karasamani, I., & Philip, D. (2019). CEO duality, agency costs, and internal capital allocation efficiency. *British Journal of Management*, 30(2), 473–493. <https://doi.org/10.1111/1467-8551.12277>
- Al-Thuneibat, A. A., Al Issa, R. T. I., & Ata Baker, R. A. (2011). Do audit tenure and firm size contribute to audit quality?: Empirical evidence from Jordan. *Managerial Auditing Journal*, 26(4), 317–334. <https://doi.org/10.1108/02686901111124648>
- Alatawi, M. S., Daud, Z. M., & Johari, J. (2025). Integrated reporting and firm value: Moderating role of CEO integrity in the context of GCC countries. *Cogent Business & Management*, 12(1), 2462273. <https://doi.org/10.1080/23311975.2025.2462273>
- Almutairi, A. R., Dunn, K. A., & Skantz, T. (2009). Auditor tenure, auditor specialization, and information asymmetry. *Managerial Auditing Journal*, 24(7), 600–623. <https://doi.org/10.1108/02686900910975341>
- Amoako, G. K., Bawuah, J., Asafo-Adjei, E., & Ayimbire C. (2023). Internal audit functions and sustainability audits: Insights from manufacturing firms. *Cogent Business & Management*, 10(1), 2192313. <https://doi.org/10.1080/23311975.2023.2192313>
- Angeline, S., Sitorus, J. S., Sumbayak, M. I. S., Purba, S. D. F., & David, D. (2020). The effect of liquidity, leverage, profitability and company size on stock prices in mining companies listed on the Indonesia stock exchange in the period of 2013-2017. *Jurnal AKSI (Akuntansi dan Sistem Informasi)*, 5(2), 74–82. <https://doi.org/10.32486/aksi.v5i2.21>
- Angir, P., & Weli, W. (2024). The influence of environmental, social, and governance (ESG) disclosure on firm value: An asymmetric information perspective in Indonesian listed companies. *Binus Business Review*, 15(1), 29-40. <https://doi.org/10.21512/bbr.v15i1.10460>
- Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22(S2), S119–S127. <https://doi.org/10.1016/j.bir.2022.11.006>
- Bagh, T., Fuwei, J., & Khan, M. A. (2024). Corporate ESG investments and firm's value under the real-option framework: Evidence from two world-leading economies. *Borsa Istanbul Review*, 24(2), 324–340. <https://doi.org/10.1016/j.bir.2024.01.002>
- Bagonza, A., Chen, Y., & Rech, F. (2024). Mediating impact of integrated reporting on audit quality and market reactions in Africa: evidence from South Africa. *Accounting Research Journal*, 37(4), 401–417. <https://doi.org/10.1108/ARJ-01-2023-0009>
- Barth, M. E., Cahan, S. F., Chen, L., & Venter, E. R. (2017). The economic consequences associated with integrated report quality: Capital market and real effects. *Accounting, Organizations and Society*, 62, 43–64. <https://doi.org/10.1016/j.aos.2017.08.005>
- Bessler, W., Drobetz, W., & Grüninger, M. C. (2011). Information asymmetry and financing decisions. *International Review of Finance*, 11(1), 123–154. <https://doi.org/10.1111/j.1468-2443.2010.01122.x>
- Boodhun, Y., & Jugurnath, B. (2023). Value relevance and integrated reporting sustainability approach: Evidence from listed non-financial companies in Australia. In *The Eurasia Proceedings of Educational & Social Sciences (EPESS) 2023* (pp. 10-23). Marmaris, Turkey: International Conference on Social Science Studies (IConSoS2023).
- Brooks, L. (L). Z., Gill, S., Wong-On-Wing, B., & Yu, M. D. (2022). Does audit firm tenure enhance firm value? Closing the expectation gap through corporate social responsibility.

- Managerial Auditing Journal*, 37(8), 1113-1145. <https://doi.org/10.1108/MAJ-11-2020-2902>
- Chairani, C., & Siregar, S. V. (2021). The effect of firm risk management on financial performance and firm value: The role of environmental, social and governance performance. *Meditari Accountancy Research*, 29(3), 647–670. <https://doi.org/10.1108/MEDAR-09-2019-0549>
- Chen, C. -Y., Lin, C. -J., & Lin, Y. -C. (2008). Audit partner tenure, audit firm tenure, and discretionary accruals: Does long auditor tenure impair earnings quality? *Contemporary Accounting Research*, 25(2), 415-445. <https://doi.org/10.1506/car.25.2.5>
- Crisóstomo, V. L., de Souza Freire, F., & de Vasconcellos F. C. (2011). Corporate social responsibility, firm value and financial performance in Brazil. *Social Responsibility Journal*, 7(2), 295-309. <https://doi.org/10.1108/174711111111141549>
- Dang, H. N., Nguyen, T. T. C., & Tran, D. M. (2020). The impact of earnings quality on firm value: The case of Vietnam. *Journal of Asian Finance, Economics and Business*, 7(3), 63–72. <https://doi.org/10.13106/jafeb.2020.vol7.no3.63>
- Donnelly, R., & Mulcahy, M. (2008). Board structure, ownership, and voluntary disclosure in Ireland. *Corporate Governance: An International Review*, 16(5), 416-429. <https://doi.org/10.1111/j.1467-8683.2008.00692.x>
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *The Academy of Management Review*, 14(1), 57-74. <https://doi.org/10.2307/258191>
- García-Sánchez, I. -M., & Noguera-Gámez, L. (2017). Integrated information and the cost of capital. *International Business Review*, 26(5), 959–975. <https://doi.org/10.1016/j.ibusrev.2017.03.004>
- Hichri, A. (2023). Audit quality, value relevance, integrated reporting and the moderating role of business ethics: Evidence from European ESG firms. *Review of Accounting and Finance*, 22(5), 663–681. <https://doi.org/10.1108/RAF-03-2023-0073>
- Huang, S., & Ge, J. (2024). Is there heterogeneity in ESG disclosure by mining companies? A comparison of developed and developing countries. *Environmental Impact Assessment Review*, 104, 107348. <https://doi.org/10.1016/j.eiar.2023.107348>
- Husna, A., & Satria, I. (2019). Effect of return on assets, debt to asset ratio, current ratio, firm size, and dividend payout ratio on firm value. *International Journal of Economics and Financial Issues*, 9(5), 50–54. <https://doi.org/10.32479/ijefi.8595>
- Ibrahem, A. T. (2023). The role of integrated reporting information disclosure on enhancing the firm value: An applied study to a sample of banks listed in the Iraqi stock exchange. *Academy of Accounting and Financial Studies*, 27(4), 1-15. <https://www.researchgate.net/publication/371695444>
- IIRC. (2013). The International <IR> Framework. Retrieved from January 11, 2024, from [www.theiirc.org](http://www.theiirc.org).
- Islam, M. S. (2021). Investigating the relationship between integrated reporting and firm performance in a voluntary disclosure regime: Insights from Bangladesh. *Asian Journal of Accounting Research*, 6(2), 228–245. <https://doi.org/10.1108/AJAR-06-2020-0039>
- Jadiyappa, N., Hickman, L. E., Kakani, R. K., & Abidi, Q. (2021). Auditor tenure and audit quality: An investigation of moderating factors prior to the commencement of mandatory rotations in India. *Managerial Auditing Journal*, 36(5), 724-743. <https://doi.org/10.1108/MAJ-12-2020-2957>

- Jaya, S. (2020). Pengaruh ukuran perusahaan (firm size) dan profitabilitas (ROA) terhadap nilai perusahaan (firm value) pada perusahaan sub sektor property dan real estate di bursa efek Indonesia (BEI). *Jurnal Manajemen Motivasi*, 16(1), 38-44. <http://dx.doi.org/10.29406/jmm.v16i1.2136>
- 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/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Johnson, E., Khurana, I. K., & Reynolds, J. K. (2002). Audit-firm tenure and the quality of financial reports. *Contemporary Accounting Research*, 19(4), 637–660. <https://doi.org/10.1506/LLTH-JXQV-8CEW-8MXD>
- Kuzey, C., Elbardan, H., Uyar, A., & Karaman, A. S. (2023). Do shareholders appreciate the audit committee and auditor moderation? Evidence from sustainability reporting. *International Journal of Accounting & Information Management*, 31(5), 808–837. <https://doi.org/10.1108/IJAIM-02-2023-0033>
- Lee, K. -W., & Yeo, G. H. -H. (2016). The association between integrated reporting and firm valuation. *Review of Quantitative Finance and Accounting*, 47(4), 1221–1250. <https://doi.org/10.1007/s11156-015-0536-y>
- Lina, L., & Rohmah, F. S. (2024). Ownership structure, board size, and carbon emission disclosures: Empirical evidence from ASEAN-5 countries. *Jurnal Dinamika Akuntansi dan Bisnis*, 11(2), 315-330. <http://dx.doi.org/10.24815/jdab.v11i2.40399>
- Loh, L., Thomas, T., & Wang, Y. (2017). Sustainability reporting and firm value: Evidence from Singapore-listed companies. *Sustainability*, 9(11), 2112. <https://doi.org/10.3390/su9112112>
- Makri, M., & Kabra, K. C. (2023). Integrated reporting and firm value in an emerging economy: The moderating role of firm size. *Indonesian Journal of Sustainability Accounting and Management*, 7(1), 235–247. <https://doi.org/10.28992/ijSAM.v7i1.697>
- Makri, V., Tsagkanos, A., & Bellas, A. (2014). Determinants of non-performing loans: The case of Eurozone. *Panoeconomicus*, 61, 193-206. <https://doi.org/10.2298/PAN1402193M>
- Moscariello, N., Pizzo, M., Govorun, D., & Kostyuk, A. (2019). Independent minority directors and firm value in a principal–principal agency setting: Evidence from Italy. *Journal of Management and Governance*, 23(1), 165–194. <https://doi.org/10.1007/s10997-018-9421-0>
- MSCI. (2024). MSCI market classification assessing and categorizing equity markets according to common characteristics. Retrieved from July 19, 2024, from <https://www.msci.com/indexes/index-resources/market-classification>
- Munawar, A. (2019). The effect of leverage, dividend policy, effectiveness, efficiency, and firm size on firm value in plantation companies listed on IDX. *International Journal of Science and Research*, 8(10), 244-252. <https://doi.org/10.21275/ART20201693>
- Nurhikmawaty, D., Isnurhadi, I., & Widiyanti, M. (2020). The effect of debt to equity ratio and return on equity on stock return with dividend policy as intervening variables in subsectors property and real estate on BEI. *Open Journal of Business and Management*, 8, 2148-2161. <https://doi.org/10.4236/ojbm.2020.85131>
- Nurkumalasari, I. S., Restuningdiah, N., & Sidharta, E. A. (2019). Integrated reporting disclosure and its impact on firm value: Evidence in Asia. *International Journal of Business, Economics and Law*, 18(5), 99-108.

- Obeng, V. A., Ahmed, K., & Miglani, S. (2020). Integrated reporting and earnings quality: The moderating effect of agency costs. *Pacific-Basin Finance Journal*, 60, 101285. <https://doi.org/10.1016/j.pacfin.2020.101285>
- Ogundele, O. S., Ifunanya, N. L., Innocent, M. K., & Muhammad, S. (2025). Moderating role of audit tenure in the relationship between audit fees and financial performance: Evidence from the Nigerian banking sector. In *Impacting Society Positively Through Technology in Accounting and Business Processes (ICAB 2024)* (pp. 573-589).
- Panda, B., & Leepsa, N. M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance*, 10(1), 74-95. <https://doi.org/10.1177/0974686217701467>
- Patterson, E. R., Smith, J. R., & Tiras, S. L. (2019). The Effects of Auditor Tenure on Fraud and Its Detection. *The Accounting Review*, 94(5), 297-318. <https://doi.org/10.2308/accr-52370>
- Pavlopoulos, A., Magnis, C., & Iatridis, G. E. (2019). Integrated reporting: An accounting disclosure tool for high quality financial reporting. *Research in International Business & Finance*, 49, 13-40. <https://doi.org/10.1016/j.ribaf.2019.02.007>
- Permatasari, I., & Narsa, I. M. (2022). Sustainability reporting or integrated reporting: Which one is valuable for investors? *Journal of Accounting & Organizational Change*, 18(5), 666-684. <https://doi.org/10.1108/JAOC-12-2020-0204>
- Pertiwi, I. F. P., Kusuma, H., Hadi, K., Arifin, J., Yoga, I., & Fahma, A. Z. (2022). Isomorphism of integrated reporting's sustainability embeddedness: Evidence from Indonesian listed companies. *Cogent Business & Management*, 9(1), 2099605. <https://doi.org/10.1080/23311975.2022.2099605>
- Pujiastuti, A., Yunita, R. D. S., & Astuti, F. Y. (2024). ESG performance, debt equity choices, and rapid adjustments in Indonesia. *Jurnal Akuntansi dan Keuangan Indonesia*, 21(1), 64-84. <https://doi.org/10.21002/jaki.2024.04>
- Pusparini, H., Nurabiah, N., & Mariadi, Y. (2023). Pengaruh pelaporan terintegrasi dan pengungkapan risiko tekstual terhadap nilai pasar. *Jurnal Aplikasi Akuntansi*, 8(1), 131–141. <https://doi.org/10.29303/jaa.v8i1.286>
- Puspitaningtyas, Z. (2019). Assessment of financial performance and the effect on dividend policy of the banking companies listed on the Indonesia stock exchange. *Banks and Bank Systems*, 14(2), 24–39. [https://doi.org/10.21511/bbs.14\(2\).2019.03](https://doi.org/10.21511/bbs.14(2).2019.03)
- PwC. (2022). PwC's Global Economic Crime and Fraud Survey 2022. Retrieved from February 11, 2024, from <https://www.pwc.com/gx/en/services/forensics/economic-crime-survey/2022.html>
- Rahman R. A., Omar N. H., Osman A. H., & Zakaria M. (2020). Do big four auditors limit real earnings management. *TEST Engineering and Management*, 83, 9750–9757.
- Raimo, N., Vitolla, F., Marrone, A., & Rubino, M. (2020). The role of ownership structure in integrated reporting policies. *Business Strategy and the Environment*, 29(6), 2238–2250. <https://doi.org/10.1002/bse.2498>
- Rossi, F., & Harjoto, M. A. (2020). Corporate non-financial disclosure, firm value, risk, and agency costs: Evidence from Italian listed companies. *Review of Managerial Science*, 14(5), 1149–1181. <https://doi.org/10.1007/s11846-019-00358-z>
- Saleh Aly, S. A., Diab, A., & Abdelazim, S. I. (2023). Audit quality, firm value and audit fees: Does audit tenure matter? Egyptian evidence. *Journal of Financial Reporting and Accounting*. <https://doi.org/10.1108/JFRA-04-2023-0203>

- Shahria, G. (2023). Exploring the affiliation between integrated reporting and firm performance: Evidence from Bangladesh. *Jurnal Dinamika Akuntansi dan Bisnis*, 10(2), 181 – 198. <https://doi.org/10.24815/jdab.v10i2.29527>
- Soroushyar, A. (2023). Auditor characteristics and the financial reporting quality: The moderating role of the client business strategy. *Asian Journal of Accounting Research*, 8(1), 27–40. <https://doi.org/10.1108/AJAR-01-2022-0020>
- Su, L. (N)., Zhao, X. (R)., & Zhou, G. (S). (2016). Auditor tenure and stock price idiosyncratic volatility: The moderating role of industry specialization. *Auditing: A Journal of Practice & Theory*, 35(2), 147–166. <https://doi.org/10.2308/ajpt-51256>
- Truong, T. H. D. (2025). Environmental, social and governance performance and firm value: Does ownership concentration matter? *Management Decision*, 63(2), 488–511. <https://doi.org/10.1108/MD-10-2023-1993>
- Velte, P. (2022). Archival research on integrated reporting: A systematic review of main drivers and the impact of integrated reporting on firm value. *Journal of Management and Governance*, 26(3), 997–1061. <https://doi.org/10.1007/s10997-021-09582-w>
- Vitolla, F., Raimo, N., Rubino, M., & Garzoni, A. (2020). The determinants of integrated reporting quality in financial institutions. *Corporate Governance*, 20(3), 429–444. <https://doi.org/10.1108/CG-07-2019-0202>
- Wahl, A., Charifzadeh, M., & Diefenbach, F. (2020). Voluntary adopters of integrated reporting – Evidence on forecast accuracy and firm value. *Business Strategy and the Environment*, 29(6), 2542–2556. <https://doi.org/10.1002/bse.2519>
- Watts, R. L., & Zimmerman, J. L. (1983). Agency problems, auditing, and the theory of the firm: Some evidence. *The Journal of Law & Economics*, 26(3), 613–633. <https://www.jstor.org/stable/725039>
- Weli, W., & Betseda, Y. (2021). Information asymmetry and firm value on web-based integrated reporting system quality. *Quality - Access to Success*, 22(184), 237–246. <https://doi.org/10.47750/QAS/22.184.30>
- Wiradinata, T., Graciella, F., Tanamal, R., Soekamto, Y. S., & Saputri, T. R. D. (2022). Post-pandemic analysis of house price prediction in Surabaya: A machine learning approach. *Journal of Southwest Jiaotong University*, 57(5), 562–573. <https://doi.org/10.35741/issn.0258-2724.57.5.45>
- Zhou, S., Simnett, R., & Green, W. (2017). Does integrated reporting matter to the capital market? *Abacus*, 53(1), 94–132. <https://doi.org/10.1111/abac.12104>
- Zuhroh, I. (2019). The effects of liquidity, firm size, and profitability on the firm value with mediating leverage. In *The 2nd International Conference on Islamic Economics, Business, and Philanthropy (2nd ICIEBP) 2018* (pp. 203-230). Surabaya, Indonesia: KnE Social Sciences.

