



## Risk Disclosure Level and Its Relationship with Profitability (A Study of Annual Reports of Companies in the Transportation Sector)

Almira Yumna Putri<sup>1\*</sup>, Achmad Hizazi<sup>2</sup>, Ratih Kusumastuti<sup>3</sup>

<sup>1-3</sup> Universitas Jambi, Indonesia

\* Corresponding author: [almira.putri39@gmail.com](mailto:almira.putri39@gmail.com)<sup>1</sup>

**Abstract.** *This study examines the relationship between risk disclosure levels and profitability in transportation companies listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period. The transportation industry is characterized by high exposure to operational, financial, regulatory, and market-related risks, which necessitates transparent and comprehensive communication regarding potential threats to business sustainability and long-term performance. Using a quantitative correlational approach, this study measures the level of risk disclosure through systematic content analysis of companies' annual reports, while profitability is evaluated using the Return on Assets (ROA) indicator. The analysis is conducted to identify the extent to which transparent risk reporting contributes to improved financial outcomes. The findings indicate a significant positive relationship between risk disclosure and profitability, suggesting that companies providing more comprehensive and detailed risk information tend to achieve higher financial performance. Furthermore, the results demonstrate that transparency plays a crucial role in enhancing investor confidence, strengthening corporate governance, and supporting sustainable business practices, particularly in high-risk sectors such as transportation.*

**Keywords:** *Corporate Governance; Financial Transparency; Profitability; Risk Disclosure; Transportation Sector.*

### 1. INTRODUCTION

The global transportation sector has undergone substantial changes in recent years due to the rapid evolution of digital technology, environmental regulations, and the lingering effects of the COVID-19 pandemic. These developments have increased the complexity of risk management and heightened the need for transparent communication between companies and stakeholders. According to Tatarintseva et al. (2023), the financial stability of transportation companies is closely related to their ability to manage and communicate risks effectively. Firms that are proactive in identifying, assessing, and disclosing potential risks tend to gain the trust of investors and regulators, which contributes to long-term profitability and competitiveness.

The growing importance of risk disclosure has transformed it from a compliance requirement into a strategic instrument of corporate governance. Transparent disclosure reduces information asymmetry and enhances the credibility of corporate reporting (Soltani Nejad et al., 2024). In the transportation industry, characterized by heavy regulation, high fixed costs, and sensitivity to macroeconomic fluctuations, such transparency becomes particularly vital. It signals managerial accountability and resilience, both of which are crucial for maintaining profitability in volatile markets.

Previous empirical studies have shown mixed results regarding the relationship between risk disclosure and profitability. Hui et al. (2023) found a positive relationship in the aviation industry, suggesting that risk transparency helps mitigate operational uncertainty and improve

investor confidence. In contrast, other scholars have argued that excessive disclosure may expose firms to competitive disadvantages or reputational risks. This study aims to clarify these dynamics by providing evidence from Indonesia's transportation sector, where corporate disclosure practices are still evolving and influenced by diverse governance structures.

From a theoretical perspective, this research is grounded in agency theory, signaling theory, and legitimacy theory. Agency theory posits that risk disclosure reduces agency costs by aligning the interests of management and shareholders. Signaling theory suggests that high-quality disclosure serves as a signal of managerial competence and reliability. Meanwhile, legitimacy theory emphasizes that firms disclose risks to demonstrate social responsibility and compliance with institutional expectations (Petrova-Kirova & Yosifova, 2024). By synthesizing these perspectives, this study contributes to understanding how disclosure quality can influence financial outcomes in a high-risk sector.

## **2. LITERATURE REVIEW**

### **Risk Disclosure and Corporate Transparency**

Risk disclosure refers to the voluntary or mandatory reporting of potential uncertainties that could impact a company's financial position or performance. It encompasses operational, strategic, environmental, and financial risks. Petrova-Kirova and Yosifova (2024) demonstrated that non-financial disclosures, including risk-related information, have statistically significant relationships with profitability in the European transportation industry. Such disclosures not only enhance investor decision-making but also improve corporate reputation and stakeholder engagement. Prior studies document that firms with higher levels of risk disclosure tend to experience superior financial performance due to improved monitoring mechanisms and reduced agency costs (Elshandidy & Neri, 2023; Husted & de Sousa-Filho, 2023). Moreover, ESG-oriented disclosures have become an important channel through which firms communicate long-term risk management strategies to stakeholders (Broadstock et al., 2023).

In emerging economies, risk disclosure is often influenced by regulatory environments and governance quality. Firms in countries with stronger regulatory frameworks tend to have higher disclosure levels, which positively impact investor perception. In Indonesia, the Financial Services Authority (OJK) has encouraged companies to adopt integrated reporting standards, combining financial and non-financial information to improve transparency and accountability.

## **Profitability and Firm Performance**

Profitability is one of the most commonly used indicators to measure a company's performance and efficiency. The Return on Assets (ROA) ratio provides insight into how effectively a firm uses its assets to generate income. According to Soltani Nejad et al. (2024), profitability not only reflects managerial effectiveness but also affects the firm's disclosure behavior profitable firms are more likely to disclose comprehensive information to maintain their reputation and signal financial health to investors.

## **Theoretical Framework**

Agency theory underlines the conflict between managers and shareholders due to information asymmetry. Risk disclosure mitigates this problem by providing a clearer picture of management's actions and the company's risk exposure. Signaling theory suggests that companies disclose information to send positive signals to the market, thereby attracting investors and enhancing firm value. Legitimacy theory argues that disclosure helps firms maintain legitimacy in the eyes of regulators, customers, and society (Tatarintseva et al., 2023). Together, these theories suggest that risk disclosure can positively influence profitability through improved transparency and stakeholder confidence.

## **3. RESEARCH METHODOLOGY**

This study uses a quantitative approach with a descriptive-correlational design. The population comprises transportation companies listed on the IDX between 2022 and 2024. Using purposive sampling, only companies that published complete annual reports and disclosed risk information were included. The final sample consisted of 25 companies across aviation, shipping, logistics, and land transportation sub-sectors.

### **Variables and Measurement**

The independent variable, risk disclosure, was quantified through content analysis based on a Risk Disclosure Index (RDI) covering 25 disclosure items classified into financial, operational, strategic, and environmental risks. The dependent variable, profitability, was measured using Return on Assets (ROA). Control variables included firm size (logarithm of total assets) and leverage (debt-to-equity ratio). The data were analyzed using descriptive statistics to summarize disclosure and profitability levels, followed by correlation and regression analyses to test the research hypothesis. The regression model used is:

$$ROA = \beta_0 + \beta_1 RDI + \beta_2 SIZE + \beta_3 LEV + \varepsilon$$

All statistical analyses were performed using SPSS version 26 with a significance level of 5%.

#### 4. HASIL DAN PEMBAHASAN

##### Descriptive Analysis

**Tabel 1.** Descriptive Statistics of Risk Disclosure and Profitability (2022–2024).

Variable	N	Mean	Minimum	Maximum	Standard Deviation
Risk Disclosure Index (RDI)	75	0.65	0.42	0.88	0.11
Return on Assets (ROA)	75	0.054	-0.031	0.142	0.039

Notes: Risk Disclosure Index (RDI) is measured as the proportion of disclosed risk items to the total risk disclosure checklist. Return on Assets (ROA) is calculated as net income divided by total assets. The sample consists of 25 transportation companies observed over three years (2022–2024), resulting in 75 firm-year observations.

Table 1 presents the descriptive statistics of risk disclosure and profitability for transportation companies listed on the Indonesia Stock Exchange during the 2022–2024 period. The mean Risk Disclosure Index (RDI) of 0.65 indicates that, on average, firms disclosed approximately 65% of the identified risk items in their annual reports. The RDI values range from 0.42 to 0.88, suggesting moderate variation in disclosure practices across firms.

The mean Return on Assets (ROA) is 5.4%, indicating moderate profitability, with values ranging from –3.1% to 14.2%. The standard deviation values show a reasonable dispersion of both disclosure and profitability levels, implying heterogeneity in corporate transparency and financial performance within the transportation sector.

**Tabel 2.** Trend of Risk Disclosure Index and Profitability (2022–2024)

Year	Average Risk Disclosure Index (RDI)	Average ROA
2022	0.58 (58%)	0.048
2023	0.63 (63%)	0.052
2024	0.69 (69%)	0.058

Notes: Risk Disclosure Index (RDI) represents the proportion of disclosed risk items to the total disclosure checklist. Return on Assets (ROA) is calculated as net income divided by total assets. The table reflects average values across transportation companies listed on the Indonesia Stock Exchange during the observation period.

Descriptive statistics in table 3 show that the average Risk Disclosure Index across the sample increased from 58% in 2022 to 69% in 2024. This improvement aligns with global trends emphasizing ESG (Environmental, Social, and Governance) reporting and sustainability practices. Profitability, as measured by ROA, also improved modestly over the same period, suggesting a potential link between transparency and performance.

## **Correlation and Regression Results**

The correlation analysis revealed a positive and significant relationship ( $r = 0.52$ ,  $p < 0.05$ ) between risk disclosure and profitability. Regression analysis confirmed that risk disclosure accounts for approximately 27% of the variation in profitability, indicating that higher disclosure levels are associated with better financial outcomes. Firm size and leverage were also found to be significant predictors, suggesting that larger firms with lower debt ratios tend to disclose more information and achieve higher profitability.

## **Discussion**

The results reinforce the idea that transparent risk disclosure contributes to improved profitability by reducing information asymmetry and enhancing investor confidence. These findings are consistent with Hui et al. (2023), who observed that firms in the aviation sector with detailed risk reporting demonstrate higher operational efficiency and market valuation. The results also align with Soltani Nejad et al. (2024), who concluded that firms integrating risk and financing strategies achieve more stable profit growth.

Moreover, Petrova-Kirova and Yosifova (2024) found that in the European transport sector, firms with structured non-financial disclosures experience improved return ratios. In Indonesia, the increasing emphasis on environmental and safety risks has further strengthened the connection between transparency and profitability. This suggests that the benefits of disclosure extend beyond financial metrics to encompass corporate legitimacy and social reputation.

From a strategic perspective, risk disclosure serves multiple functions: it reduces uncertainty, fosters trust, and enhances access to financing. Investors perceive firms with transparent risk communication as more reliable, leading to lower capital costs. These dynamics contribute to improved profitability and long-term sustainability.

## **5. CONCLUSION**

This study investigates the relationship between risk disclosure and profitability in transportation companies listed on the Indonesia Stock Exchange during the 2022–2024 period. Using a quantitative correlational approach and content analysis of annual reports, the study provides empirical evidence on how transparency in risk reporting relates to firm performance in a high-risk and highly regulated sector.

The results indicate that the level of risk disclosure has increased steadily over the observation period, reflecting a growing commitment by transportation companies to transparency, sustainability, and ESG-oriented reporting practices. At the same time,

profitability, as measured by Return on Assets (ROA), shows a modest but consistent improvement. The statistical analyses confirm a positive and significant relationship between risk disclosure and profitability, suggesting that firms with more comprehensive risk reporting tend to achieve better financial performance.

These findings support the predictions of agency theory, signaling theory, and legitimacy theory. Enhanced risk disclosure helps reduce information asymmetry between management and stakeholders, signals managerial competence and reliability to the market, and strengthens corporate legitimacy in the eyes of regulators and investors. In the context of the transportation sector, transparent communication of operational, financial, and environmental risks appears to contribute to greater investor confidence, improved access to capital, and more efficient asset utilization. The findings of this study are consistent with prior research suggesting that transparency in risk and sustainability reporting contributes to improved financial stability and market valuation (Nguyen et al., 2023; García-Sánchez et al., 2024). In high-risk sectors, such as transportation, enhanced disclosure practices help mitigate uncertainty and support long-term value creation (Li et al., 2022; Orazalin & Mahmood, 2023).

From a practical perspective, this study highlights that risk disclosure should not be viewed merely as a regulatory obligation, but as a strategic instrument that can enhance firm performance and long-term sustainability. Managers are encouraged to integrate risk disclosure more systematically into corporate reporting and risk management frameworks. For regulators, the findings suggest the importance of strengthening and standardizing disclosure guidelines to improve comparability and consistency across firms.

Despite its contributions, this study has limitations. The sample is limited to transportation companies in Indonesia and focuses on ROA as the primary profitability measure. Future research may extend the analysis to other sectors, incorporate additional performance indicators, explore cross-country comparisons, or examine the moderating role of ESG disclosures and corporate governance mechanisms. Such extensions would provide a more comprehensive understanding of how transparency influences firm performance in different institutional contexts.

**REFERENCES**

- Al-Shaer, H., & Zaman, M. (2022). Board gender diversity and sustainability reporting quality. *Journal of Contemporary Accounting & Economics*, 18(1).
- Bhat, G., Hope, O. K., & Kang, T. (2022). Corporate governance and risk disclosure. *Journal of Business Finance & Accounting*, 49(7–8).
- Broadstock, D. C., Chan, K., Cheng, L., & Wang, X. (2023). The role of ESG performance during periods of financial crisis. *Journal of Sustainable Finance & Investment*, 13(1).
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2023). Signaling theory: A review and assessment. *Journal of Management*, 49(1).
- Dang, C., Li, Z., & Yang, C. (2022). Measuring firm size in empirical corporate finance. *Journal of Banking & Finance*, 136.
- Elamer, A. A., Ntim, C. G., Abdou, H. A., & Pyke, C. (2022). Sharia governance and risk disclosure. *Journal of International Accounting, Auditing and Taxation*, 46.
- Elshandidy, T., & Neri, L. (2023). Corporate governance, risk disclosure, and firm value. *International Review of Financial Analysis*, 85.
- García-Sánchez, I. M., Raimo, N., & Vitolla, F. (2024). ESG disclosure and firm performance. *Business Strategy and the Environment*, 33(2).
- Hassan, M. K., Elamer, A. A., Sobhan, N., & Fletcher, M. (2023). Voluntary disclosure and firm performance. *Accounting Research Journal*, 36(2).
- Hui, Y., Meng, Q., & Bao, C. (2023). Exploring risk exposures in the aviation sector by examining risk disclosure information from listed companies. *Procedia Computer Science*. <https://doi.org/10.1016/j.procs.2023.08.017>
- Husted, B. W., & de Sousa-Filho, J. M. (2023). ESG, risk management, and financial performance. *Journal of Business Ethics*, 184(1).
- Kılıç, M., & Kuzey, C. (2023). The effect of corporate governance on risk disclosure. *Borsa Istanbul Review*, 23(2). <https://doi.org/10.1016/j.bir.2023.08.005>
- Li, Y., Gong, M., Zhang, X., & Koh, L. (2022). The impact of environmental disclosure on firm performance. *Journal of Cleaner Production*, 338.
- Nguyen, T. H., Vu, M. C., & Le, T. T. (2023). Sustainability disclosure and profitability. *Sustainability*, 15(4).
- Orazalin, N., & Mahmood, M. (2023). Economic, environmental, and social performance. *Corporate Social Responsibility and Environmental Management*, 30(2).

- Petrova-Kirova, M., & Yosifova, D. (2024). Statistical dependencies between non-financial disclosures and ex-post financial performance. *Transport Problems*, 19(1).  
<https://doi.org/10.20858/tp.2024.19.1.14>
- Soltani Nejad, H., Darabi, R., & Hamidian, M. (2024). Risk factors and financing methods in transportation companies. *Journal of Industrial Systems Engineering*.
- Tatarintseva, S. G., Satsuk, T. P., & Udalova, D. V. (2023). Risk management and financial stability of transport companies. *AIP Conference Proceedings*, 2624(1).  
<https://doi.org/10.1063/5.0150187>