

## Analysis of the Financial Performance of Companies Facing Bankruptcy Reviewed from the Aspects of Business Risk and Financial Distress

Rakhmat Irwansyah<sup>1\*</sup>, Yohannes Indrayono<sup>2</sup>, Arief Tri Hardiyanto<sup>3</sup>  
Pakuan University

**Corresponding Author:** Rakhmat Irwansyah [rirwansyah.storage1@gmail.com](mailto:rirwansyah.storage1@gmail.com)

---

### ARTICLE INFO

*Keywords:* Financial Performance, Business Risk, Financial Distress, Altman Z-Score, Companies Facing Bankruptcy

*Received :* 15 February

*Revised :* 20 March

*Accepted:* 30 April

©2026 Irwansyah, Indrayono, Hardiyanto: This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



### ABSTRACT

This research aims to analyze the direct influence of Business Risk and Financial Distress on the Financial Performance of companies facing bankruptcy. The research approach is quantitative with causal methods. The research sample comprised 251 companies that experienced liquidity difficulties and were at risk of bankruptcy during the 2020-2025 period on the Indonesian Stock Exchange. Data analysis was conducted using EViews version 10 to perform path analysis with the t-test. The research results show (1) Business risk affects the financial performance of companies classified as Special Notation Issuers (B/D/E/ED); (2) financial distress has an impact on the financial performance of companies included in the criteria for Special Notation Issuers with the notation B/D/E/ED

---

## **INTRODUCTION**

The current global and Indonesian economic developments have not yet achieved the expected targets. This situation can impact the development of companies in Indonesia. The Indonesia Stock Exchange (IDX) recorded that within 10 years (2015-2025), 57 issuers on the IDX experienced serious financial problems. These problems ranged from bankruptcy to receiving a disclaimer of audit opinions to negative equity. The number of issuers on the Indonesia Stock Exchange has consistently increased from 518 to 980. The number of issuers receiving special notation has also tended to increase, particularly since 2017, peaking at 234 issuers, or 24.43% of the total, in 2024. This trend indicates a significant increase in financial risk or special conditions among issuers. This condition has been particularly pronounced in recent years, although the percentage of special notation decreased to 22.45% in 2025.

This phenomenon indicates that some public companies have not implemented effective governance, which could increase the risk of bankruptcy. This situation demonstrates that the business world continues to face significant pressure, both externally and internally. External pressures, such as global economic uncertainty, soaring inflation, fluctuating exchange rates, and geopolitical turmoil, require companies to work harder to maintain their financial stability.

This situation directly impacts a company's financial performance. Companies unable to adapt to changes in the business environment will experience declining revenue, increasing operating costs, and reduced profit-generating capacity. According to Wen et al. (2023), financial performance plays a crucial role as an indicator of a company's health. Good financial performance is typically characterized by high profitability, adequate liquidity, and a stable market value (Indrayono, 2021). A strong level of performance reflects management efficiency in managing assets, optimizing resources, and maintaining cash flow continuity.

Financial performance is also a key consideration for investors, creditors, and other stakeholders in assessing a company's prospects. One key indicator of financial performance is Return on Assets (ROA), which indicates how optimally a company utilizes its total assets to generate profits (Yu, 2024). A high ROA reflects a company's ability to maintain profitability, boost investor confidence, and maintain business sustainability amid economic uncertainty. Conversely, a declining ROA can be an early sign of financial difficulties that, if not addressed promptly, could lead to bankruptcy.

Business risk describes the level of uncertainty a company faces in generating revenue, which can be influenced by sales fluctuations, changes in raw material prices, operational costs, and market dynamics (Krüger & Meyer, 2021). The higher the risk a company faces, the greater the potential for profit variability, which can impact financial stability (Hunjra et al., 2022). High business risk can trigger greater profit fluctuations, creating uncertainty for investors (E.F. Brigham & Houston, 2019). This condition has the potential to depress a company's financial performance because unstable profits will reduce investor confidence and reduce their interest in investing.

Research conducted by Hunjra et al. (2022) found that operational risk, a component of business risk, negatively impacts financial performance. Furthermore, research by Ekinici (2016), Gadzo et al. (2019), and Saleh & Abu Afifa (2020) indicates that risk negatively impacts bank financial performance. These results align with Jensen & Meckling's (1976) agency theory, which states that high business risk increases financial pressure due to the use of long-term debt, which can degrade financial performance. The higher the business risk, the more companies tend to reduce their use of debt, as large interest and principal payments can worsen financial conditions when facing uncertainty (Ambarsari & Hermanto, 2017). Hendriarto's research in Hunjra et al. (2022) found that business risk negatively impacts a company's financial performance.

Platt & Platt (2002) describe the inability to meet short-term and long-term obligations, which, if not addressed promptly, can lead to bankruptcy. A company enters financial distress when it is unable to meet its financial obligations due to declining business performance (Baldwin & Mason, 1983). Companies experiencing financial distress typically show losses for several consecutive years, leading to weakened performance (Ward, 1997). According to Outecheva (2007), companies experiencing financial distress are often identified as organizations implementing restructuring measures to avoid default.

Financial distress can stem from both financial and non-financial factors. Financial factors are divided into payment problems and balance sheet issues (Daniel & Anders, 2015). Factors related to financial distress are considered the most significant indicators of poor performance (Dikmen et al., 2010). Companies with low levels of financial distress tend to perform better than companies with high levels of financial distress, thus forming a negative relationship between financial distress and company financial performance (Kariuki, 2013). Studies by Franz et al. (2020) and Owusu-Manu et al. (2022) found that financial distress negatively impacted company performance. Similar results were also shown by Edwards et al. (2017), who revealed that financial distress negatively impacted company performance.

Furthermore, research by Akbar et al. (2013) noted that the 2007–2008 financial crisis had a negative impact on private companies in the UK. Research by Ahmad et al. (2023) also found that the global financial crisis negatively impacted the financial performance of companies in the UK. Business risk has also been reported to have varying relationships with financial performance. Some studies have found that high business risk negatively impacts Return on Assets (ROA), but others have found that high-risk companies are able to maintain profitability through aggressive management strategies. The purpose of this study is to determine the direct effect of business risk and financial distress on the financial performance of companies facing bankruptcy.

## **LITERATURE REVIEW**

### **1. Business Risk**

Business risk reflects the level of uncertainty a company faces in carrying out its operational activities. This risk can arise from market fluctuations, cost changes, government policies, and industry dynamics. Understanding business risk is crucial for managers because it impacts financial planning, capital structure, and investment strategy (Collier, 2015). Business risk is the risk to a company's assets if the company does not use debt. Business risk can increase when the company uses high levels of debt to meet its financing needs (E.F. Brigham & Houston, 2019). Companies should use internal funds to avoid the risk of bankruptcy.

High business risk typically reduces a company's value because investors demand higher returns to cover potential losses (Van Horne & Wachowicz, 2002). The greater the variation in potential operating profit, the higher the level of business risk that must be borne (Knight & Bertoneche, 2000). According to Krüger & Meyer (2021) business risk describes the level of uncertainty faced by a company in generating income, which can be influenced by sales fluctuations, changes in raw material prices, operational costs, and market dynamics. Basically, there is a relationship between risk and return; there are several theories that discuss the theory of risk and return (Sharpe et al., 1999).

According to Eugene F. Brigham & Ehrhardt (2017), business risk is the extent to which a company's operating profit can fluctuate due to uncertainty in sales, prices, and production costs. Sharpe (1964) developed the Capital Asset Pricing Model (CAPM), which clarifies the relationship between risk and return. According to the CAPM, the expected rate of return on an asset or business = the risk-free rate of return + a risk premium that depends on market risk (expressed as beta). In business risk, this model is used to determine the cost of equity, which is the minimum rate of return expected by investors based on the level of business risk faced by the company. This means that the higher the business risk (the higher the beta), the higher the expected return. Allen et al. (2011) emphasize that the primary goal of financial management is to maximize company value by maintaining a balance between risk and return.

It is important to remember that effective risk management is crucial in determining the impact of risk on financial performance. If business risk is not managed properly, it can lead to significant financial losses, a decline in company value, and even bankruptcy. In addition to business risk, financial performance is also influenced by various other factors such as sales growth, capital structure, liquidity, and company size. Several studies have shown that business risk negatively impacts financial performance. For example, research by Destiana and Muslih (2019) found that business risk has a significant negative impact on a company's financial performance. Business risk is the uncertainty regarding the projected future returns on assets (Brigham & Houston, 2019). Business risk describes a company's failure, resulting in unexpected losses. Valentina & Ruzikna (2017) showed that business risk is significantly and negatively related to financial performance.

## 2. Financial Distress

According to Manzanegue et al. (2016), financial distress is a condition of serious and sustained decline in a company's financial performance, which does not always result in formal bankruptcy but reflects the company's inability to maintain its business continuity (going concern). Salloum et al. (2014) explain that financial distress is a condition of a company's financial problems reflected in declining profitability and financial performance.

Financial distress is seen as a signal of problems in the financial structure and operational effectiveness, which, if not promptly addressed, can lead to bankruptcy (Collier, 2015). Financial distress is the initial stage of financial difficulty before a company goes bankrupt. This condition occurs when operating cash flow is insufficient to cover short-term liabilities and fixed costs. Van Horne & Wachowicz (2009) emphasize that the use of debt provides benefits in the form of tax savings, but also increases the risk of bankruptcy.

The Altman Z-Score approach is a model for predicting bankruptcy that can also be used to measure the level of financial distress. This model uses several financial ratios to calculate a score indicating the likelihood of a company experiencing financial distress or bankruptcy. The Altman Z-score theory, developed by E. I. Altman (1968), is a financial analysis tool used to predict the likelihood of a company going bankrupt. This model combines several financial ratios to produce a score that indicates a company's financial health and bankruptcy risk.

The Altman Z-score model is a method that combines several financial ratios to form a predictor of a company's level of financial distress. This model uses five main ratios: the retained earnings ratio, the working capital ratio, the earnings before interest and taxes ratio, the sales-to-total-assets ratio, and the market value of equity-to-total-debt ratio (Altman, 2002). The results of these five ratios are then used to determine the company's financial condition category, as shown in Table 1 below:

Table 1. Categories of Altman Method Calculation Results

Z-Score > 2,99 → in the healthy company category so that the company does not have the potential for bankruptcy.
1,81 < Z-Score < 2,99 → in the grey area category as a company that has the potential for bankruptcy, but there is still a possibility of recovery, depending on management in making decisions.
Z-Score < 1,81 is a category of companies that have a very large potential for bankruptcy and are at high risk of bankruptcy.

Meanwhile, the next five financial ratios can be calculated using the equations shown in Table 2 below:

Table 2. Altman Z-Score Model

$Z = 1,2X1 + 1,4X2 + 3,3X3 + 0,6X4 + 1,0X5$
Description:
X1: Working capital divided by total assets
X2: Retained earnings divided by total assets
X3: Profit before taxes and interest divided by total assets
X4: Market value of shares divided by total debt
X5: Sales divided by total assets

### 3. Financial Performance

Financial performance is a measure of a company's ability to achieve its business goals, particularly in relation to profitability, company value, and the ability to meet short-term and long-term obligations. Common indicators used include Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS), and Book Value. Good performance is typically characterized by high profitability, adequate liquidity, and a stable market value (Indrayono, 2021). Good performance demonstrates a company's ability to provide returns to shareholders and maintain business sustainability (Eugene F. Brigham & Houston, 2019). The results of financial performance measurements serve as the basis for management in making strategic decisions (Collier, 2015). Return on Assets (ROA) and Return on Equity (ROE) are ratios that reflect a company's ability to utilize its assets to generate profits and thus serve as a basis for assessment by investors and creditors (Gitman, L. J., & Zutter, 2012).

Financial performance is not only measured by historical results but also reflects the potential future value, which serves as a basis for investors in assessing a company's sustainability and growth (Knight & Bertoneche, 2000). Financial performance assessment is generally conducted through financial statement analysis using various ratios, namely:

- Profitability Ratios: Measure a company's ability to generate profits from its assets and capital employed. Important indicators are Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM).
- Liquidity Ratios: Assess a company's ability to meet short-term obligations, such as the Current Ratio and Quick Ratio.
- Leverage/Solvency Ratios: Show the extent to which a company is financed with debt, such as the Debt to Equity Ratio (DER).
- Activity Ratios: Measure the efficiency of asset utilization, such as Total Asset Turnover.

Good financial performance indicates that a company is not only able to generate profits but also maintain its business continuity in the future (Van Horne & Wachowicz, 2002). Based on this, the following hypotheses can be formulated in this study:

H1: Is there an influence of business risk on the financial performance of companies facing bankruptcy?

H2: Is there an influence of financial distress on the financial performance of companies facing bankruptcy?

**METHODOLOGY**

The research uses a quantitative approach with causal methods to determine the influence of Business Risk and Financial Distress towards Financial Performance of Companies Facing Bankruptcy. Measurements of institutional ownership, audit committee, and financial distress can be seen in Table 3 below:

Tabel 3. Operasionalisasi Variabel

Variables	Indicator	Measurement	Scale
Financial performance	<ul style="list-style-type: none"> <li>• Net profit</li> <li>• Total Assets</li> </ul>	$ROA = \frac{Net\ profit}{Total\ Assets}$ <p>(Abdullah &amp; Tursoy, 2023)</p>	Ratio
Business Risk	<ul style="list-style-type: none"> <li>• Change in EBIT</li> <li>• Change in Sales</li> </ul>	$RB = \frac{\% Change\ in\ EBIT}{\% Sales\ Changes}$ <p>Tadeusz Dudycs (2022)</p>	Ratio
Financial Distress	Model Altman Z-Score	$Z = 1.2 \times X1 + 1.4 \times X2 + 3.3 \times X3 + 0.6 \times X4 + 0.99 \times X5$ <p>(Edward I Altman, 2002)</p>	Ratio

The sample selection criteria for this research involved 251 companies that had indications of liquidity difficulties and the potential for bankruptcy in the 2020–2025 period based on special issuers published by the IDX. The period within the last 6 years was chosen because the current pattern/state of financial distress differs from that before the last 6 years, and research with the latest range can capture changes in distress characteristics relevant to current market and industry conditions. Data analysis was conducted using EViews (Econometric Views) version 10 to perform path analysis with the t-test.

**RESEARCH RESULTS**

The t-test is used to determine the effect of each independent variable on the dependent variable. Decisions are determined based on probability values. If the probability <0.05, then the independent variable has a partially significant effect. If the probability is > 0.05, then the independent variable is not partially significant. Complete results of the t-test can be seen in Table 4 below:

Table 4. Hasil Uji t

Correlation	Coefficient	Prob	t-statistik	Conclusion
Business Risk → Financial Performance	-0.000401	0.0000	-8.474607	H1 Accepted
Financial Distress → Financial Performance	0.004568	0.0000	6.892465	H2 Accepted

**H1: The influence of business risk on the financial performance of companies that will go bankrupt**

Based on the t-test results in Table 4, the business risk variable has a p-value  $< 0.05$  (0.0000), a t-statistic  $> 1.645$  (8.474607), and a coefficient of 0.000401. Therefore, H1 is accepted. It can be concluded that business risk affects the financial performance of companies classified as Special Notation Issuers (B/D/E/ED) that publish their financial reports on the IDX during the second quarter of 2020–2025.

**H2: The effect of financial distress on the financial performance of companies facing bankruptcy**

Based on the t-test results in Table 4.26, the financial distress variable has a p-value  $< 0.05$  (0.0000), a t-statistic  $> 1.645$  (6.892465), and a coefficient of 0.004568. Therefore, H7 is accepted. It can be concluded that financial distress has an impact on the financial performance of companies included in the criteria for Special Notation Issuers with the notation B/D/E/ED that publish their financial reports on the IDX during the 2020–2025 period, specifically the second quarter.

## **DISCUSSION**

### **The Impact of Business Risk on Financial Performance**

The results of the sixth hypothesis test indicate that business risk negatively impacts financial performance in companies classified as Special Notation Issuers (B/D/E/ED) that published their financial reports on the IDX during the second quarter of 2020–2025. This finding indicates that the higher the level of business risk a company faces, the lower its financial performance, as proxied in this study by Return on Assets (ROA). Conceptually, business risk reflects the volatility of operating profit arising from sales uncertainty, cost fluctuations, changes in raw material prices, and industry competition dynamics. When revenue variability increases, profit stability is disrupted, thereby reducing the efficiency with which assets are utilized to generate profits.

In relation to the descriptive statistics, the relatively high average business risk value in the sample companies indicates that the majority of companies with special notation face significant levels of operational uncertainty. This condition aligns with the low average financial performance in the study sample, indicating that these companies have not effectively managed risk to achieve stable profitability. The significant variation in business risk across companies also indicates that companies with higher risk tend to have lower ROA than those with more manageable risk.

This finding is consistent with financial theory, which posits that high business risk increases the likelihood of profit fluctuations and amplifies the burden of uncertainty, thereby reducing profitability. From an agency theory perspective, high business risk can also encourage management to make more defensive or even opportunistic decisions to maintain business continuity, thereby reducing operational efficiency. These results align with research by Hendriarto et al. (2025), Perdana et al. (2018), and Irmayanti et al. (2025), which found that business risk negatively impacts financial performance.

### **The Effect of Financial Distress on Financial Performance**

The results of the seventh hypothesis test indicate that financial distress has a significant positive effect on financial performance for companies classified as Special Notation Issuers (B/D/E/ED) that published their financial reports on the IDX during the second quarter of 2020–2025. In other words, the better the company's financial health, the higher its financial performance. Therefore, the seventh hypothesis is accepted. These results indicate that the higher the level of financial distress experienced by a company, the lower its financial performance. The study's results indicate that financial distress has a positive effect on a company's financial performance. This finding indicates that the higher the financial distress value, as measured using the Altman Z-Score model, the higher the company's financial performance.

This is due to the characteristics of the financial distress measure used in this study: a higher Z-Score indicates a company's financial health and greater distance from bankruptcy risk. Therefore, the positive relationship observed does not indicate that financial distress improves performance; rather, it indicates that improved financial health contributes to improved performance. Companies with a high Z-Score generally have a more stable financial structure, better profitability, and a stronger ability to manage assets and liabilities, thus achieving optimal financial performance. In the context of Special Notation Issuers, companies that successfully improve their financial condition through cost efficiency, cash-flow enhancement, and capital-structure improvements will increase their Z-Score, which is then reflected in improved financial performance.

The results of this study confirm that financial distress, as measured by the Altman Z-Score, is an indicator of financial health. A higher Z-Score indicates a healthier company, ultimately leading to sustained improvements in financial performance. These findings align with most prior research. Several studies, including Franz et al. (2020), Owusu-Manu et al. (2022), Edwards et al. (2017), and Akbar et al. (2013), show that financial distress negatively affects company performance. Similar findings were reported by Ahmad et al. (2023), who noted the negative impact of the global financial crisis on UK companies' performance. Furthermore, research (Kariuki, 2013) confirms that companies with high levels of financial distress exhibit lower financial performance than those with low levels of financial distress.

### **CONCLUSION AND RECOMMENDATIONS**

Business risk negatively impacts financial performance in companies classified as Special Notation Issuers with the B/D/E/ED notation that published their financial reports on the IDX during the second quarter of 2020–2025. This finding aligns with research by Altass (2024), which indicates that high business risk can reduce financial performance in Special Notation Issuers.

Financial distress positively impacts financial performance in companies classified as Special Notation Issuers with the B/D/E/ED notation that published their financial reports on the IDX during the second quarter of 2020–2025. This study's findings support those of Ahmad et al. (2023) and Mpora et al. (2025), which indicate that financial distress positively affects financial

performance. The healthier a company is (the higher the Altman Z-score), the lower the likelihood of financial distress.

Companies are advised to enhance the effectiveness of their business risk management, given that business risk has been shown to positively affect financial distress and financial performance. This effort can be carried out through early identification of sources of uncertainty, monitoring revenue volatility, and periodically increasing operational evaluations, so that emerging risks can be managed before they escalate into more serious financial pressures.

## FURTHER RESEARCH

Given that institutional ownership and business risk did not show a significant influence in this study, variables such as audit quality, board structure, leverage, or the quality of internal and external controls (COSO), as well as other variables such as Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) can be used to provide a deeper understanding of the factors influencing financial distress and financial performance.

## REFERENCES

- Abdullah, H., & Tursoy, T. (2023). The effect of corporate governance on financial performance: evidence from a shareholder-oriented system. *Interdisciplinary Journal of Management Studies (Formerly Known as Iranian Journal of Management Studies)*, 16(1), 79–95.
- Ahmad, N., Mobarek, A., & Raid, M. (2023). Impact of global financial crisis on firm performance in UK: Moderating role of ESG, corporate governance, and firm size. *Cogent Business & Management*, 10(1), 2167548.
- Akbar, S., ur Rehman, S., & Ormrod, P. (2013). The impact of recent financial shocks on the financing and investment policies of UK private firms. *International Review of Financial Analysis*, 26, 59–70.
- Allen, F., Brealey, R. A., & Myers, S. C. (2011). *Principles of corporate finance*. McGraw-Hill/Irwin New York.
- Altass, S. (2024). Navigating Financial Distress: The Impact of Boardroom Effectiveness and Audit Committee Expertise Interplay. *Revista de Gestão Social e Ambiental*, 18(6), 1–21.
- Altman, E. I. (1968). Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. *The Journal of Finance*, 22(4), 589–609.
- Altman, E. I. (2002a). *Corporate distress prediction models in a turbulent economic and Basel II environment*.
- Altman, E. I. (2002b). *Corporate distress prediction models in a turbulent economic and Basel II environment*.

- Baldwin, C. Y., & Mason, S. P. (1983). The resolution of claims in financial distress: the case of Massey Ferguson. *The Journal of Finance*, 38(2), 505–516.
- Brigham, E. F., & Ehrhardt, M. C. (2017). *Financial Management: Theory and Practice: Fifteenth Edition*. Cengage Learning.
- Brigham, E. F., & Houston, J. F. (2019a). *Dasar-Dasar Manajemen Keuangan* (Edisi 14 p). Jakarta: Salemba Empat.
- Brigham, E. F., & Houston, J. F. (2019b). *Dasar-Dasar Manajemen. Keuangan* (Edisi Empat). Jakarta: Salemba Empat.
- Brigham, E. F., & Houston, J. F. (2019c). *Fundamentals of Financial Management: Concise by Cengage*. Cengage Learning.
- Collier, P. M. (2015). *Accounting for managers: Interpreting accounting information for decision making*. John Wiley & Sons.
- Daniel, O., & Anders, K. (2015). *Causes of Financial Distress in the Swedish Construction Industry. A quantitative study identifying the main causes of financial distress in the Swedish construction industry*.
- Destiana, G., & Muslih, M. (2019). Pengaruh Principle-Based Corporate Governance Terhadap Kinerja Keuangan Perusahaan (Studi pada Perusahaan Manufaktur yang terdaftar di Bursa Efek Indonesia Periode 2014-2017). *Journal ASET (Akuntansi Riset) Vol*, 11(1).
- Dikmen, I., Birgonul, M. T., Ozorhon, B., & Sapci, N. E. (2010). Using the analytic network process to assess business failure risks of construction firms. *Engineering, Construction and Architectural Management*, 17(4), 369–386.
- Edwards, D. J., Owusu-Manu, D. G., Baiden, B., Badu, E., & Love, P. E. (2017). Financial distress and highway infrastructure delays. *Journal of Engineering, Design and Technology*, 15(1), 118–132.
- Ekinci, A. (2016). The effect of credit and market risk on bank performance: Evidence from Turkey. *International Journal of Economics and Financial Issues*, 6(2), 427–434.
- Franz, B., Molenaar, K. R., & Roberts, B. A. (2020). Revisiting project delivery system performance from 1998 to 2018. *Journal of Construction Engineering and Management*, 146(9), 4020100.

- Gadzo, S. G., Kportorgbi, H. K., & Gatsi, J. G. (2019). Credit risk and operational risk on financial performance of universal banks in Ghana: A partial least squares structural equation model (PLS SEM) approach. *Cogent Economics & Finance*, 7(1), 1589406.
- Gitman, L. J., & Zutter, C. J. (2012). *Principles of Managerial Finance*. 13e. Pearson.
- Hunjra, A. I., Azam, M., Bruna, M. G., & Taskin, D. (2022a). Role of financial development for sustainable economic development in low middle income countries. *Finance Research Letters*, 47, 102793.
- Hunjra, A. I., Azam, M., Bruna, M. G., & Taskin, D. (2022b). Role of financial development for sustainable economic development in low middle income countries. *Finance Research Letters*, 47, 102793.
- Indrayono, Y. (2021a). What Factors Affect Stocks' Abnormal Return during the COVID-19 Pandemic: Data from the Indonesia Stock Exchange: Data from the Indonesia Stock Exchange. *European Journal of Business and Management Research*, 6(6), 1-11.
- Indrayono, Y. (2021b). What Factors Affect Stocks' Abnormal Return during the COVID-19 Pandemic: Data from the Indonesia Stock Exchange: Data from the Indonesia Stock Exchange. *European Journal of Business and Management Research*, 6(6), 1-11.
- Kariuki, H. N. (2013). *The effect of financial distress on the financial performance of commercial banks in Kenya*. University of Nairobi.
- Knight, R., & Bertoneche, M. (2000). *Financial performance*. Elsevier.
- Krüger, N. A., & Meyer, N. (2021). The development of a small and medium-sized business risk management intervention tool. *Journal of Risk and Financial Management*, 14(7), 310.
- Manzaneque, M., Priego, A. M., & Merino, E. (2016). Corporate governance effect on financial distress likelihood: Evidence from Spain. *Revista de Contabilidad – Spanish Accounting Review*, 19(1), 111-121.
- Mpora, E. B., Katabaazi-Bwengye, A., Atukunda, E., & Dan, N. R. (2025). *The effects of financial distress on financial performance: An empirical analysis of SMEs in Sheema, Buhweju, Rubirizi, and Bushenyi districts*.
- Outecheva, N. (2007). *Corporate financial distress: An empirical analysis of distress risk*. Verlag nicht ermittelbar, Munich, Germany.

- Owusu-Manu, D.-G., Alfa, D., Edwards, D. J., Roberts, C., & Thwala, D. W. (2022a). Mitigating factors of financial distress and causalities of project performance in Ghana. *Journal of Infrastructure Systems*, 28(3), 5022004.
- Owusu-Manu, D.-G., Alfa, D., Edwards, D. J., Roberts, C., & Thwala, D. W. (2022b). Mitigating factors of financial distress and causalities of project performance in Ghana. *Journal of Infrastructure Systems*, 28(3), 5022004.
- Platt, H. D., & Platt, M. B. (2002). Predicting Corporate financial Distress: Reflections on Choice-Based sample Bias. *Journal of Economics and Finance*, 26(2), 60–72.
- Saleh, I., & Abu Afifa, M. (2020). The effect of credit risk, liquidity risk, and bank capital on bank profitability: Evidence from an emerging market. *Cogent Economics & Finance*, 8(1), 1814509.
- Salloum, C., Azzi, G., & Gebrayel, E. (2014). Audit committee and financial distress in the Middle East context: Evidence of the Lebanese financial institutions. *International Strategic Management Review*, 2(1), 39–45.
- Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance*, 19(3), 425–442.
- Sharpe, W. F., Alexander, G. J., & Bailey, J. V. (1999). *Investments. (No Title)*.
- Valentina, H., & Ruzikna, R. (2017). Pengaruh Struktur Modal, Risiko Bisnis dan Pertumbuhan Penjualan Terhadap Kinerja Keuangan pada Perusahaan Real Estate and Property yang Terdaftar di Bursa Efek Indonesia Tahun 2010-2014. Riau University.
- Van Horne, J. C., & Wachowicz, J. M. (2002). *Fundamentos de administración financiera*. Pearson Educación.
- Van Horne, J. C., & Wachowicz, J. M. (2009). *Fundamentals of Financial Management*, 13th ed. Pearson.
- Ward, J. L. (1997). Growing the family business: Special challenges and best practices. *Family Business Review*, 10(4), 323–337.
- Wen, K., Alessa, N., Marah, K., Kyeremeh, K., Ansah, E. S., & Tawiah, V. (2023). The impact of corporate governance and international orientation on firm performance in SMEs: Evidence from a developing country. *Sustainability*, 15(6), 5576.

Yu, J. (2024). Factors affecting return on assets in the renewable energy sector during supply chain disruptions. *Journal of Risk and Financial Management*, 17(6), 253.