

## How fintech companies' capital structure influences their financial performance

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**Abstract:** This research examines the impact of leverage, the Debt to Equity Ratio (DER), long-term debt, and short-term debt on the Return on Assets (ROA) of financial technology (FinTech) companies. A quantitative approach with a descriptive method was employed, involving 12 FinTech companies selected through purposive sampling, observed from Q1 2020 to Q4 2023. The analysis was carried out using multiple linear regression, classical assumption tests, and hypothesis tests. The results of the study show that leverage and DER have a positive effect on ROA, which means that the use of debt can increase profitability if managed properly. Conversely, long-term debt has a negative effect on ROA, indicating that long-term debt burdens can reduce profitability due to high interest costs. Meanwhile, short-term debt has no effect on ROA, indicating that short-term debt is used more for operational needs without a significant impact on profitability. The conclusion highlights the importance of optimizing leverage and DER to enhance profitability while cautioning against excessive long-term debt. Practical implications include providing insights for FinTech management to optimize capital structure, aiding investors in making informed decisions, and guiding regulators in promoting healthy financial practices within the industry.

**Keywords:** Capital structure, FinTech, Return on assets.

### 1. Introduction

Financial technology (FinTech) is an sector that blends financial services and technology sector to create service innovations outside of traditional financial institutions [1]. FinTech has grown rapidly globally, supported by technological advances and changes in consumer behavior [2]. Global investment in this sector has increased significantly from \$9 billion in 2010 to \$25 billion in 2016 [3], even reaching USD 111.8 billion in 2018 [4]. In the MENA region, there are more than 310 FinTech startups, with the majority in the United Arab Emirates [5].

FinTech is rapidly transforming the financial services industry, powered by cutting-edge technology [6, 7]. Global interest in the term “FinTech” has increased rapidly since 2015, as shown in Google Trends data [8]. However, the industry faces major challenges, especially related to capital structure and stringent regulations [9, 10]. Around 75% of FinTech companies fail due to high-risk capital structures [11] making research on capital structure in this industry interesting [12, 13].

The capital structure is a crucial component of a firm's financial framework, serving as an indicator to the market regarding the firm's management and financial outlook [14]. Capital structure is a crucial factor in business because it affects company performance, profit, and company value [15]. Profitability substantially impact capital structure [16]. This underscores the importance of capital structure in corporate finance [17]. Capital structure is measured through the leverage ratio, debt to equity ratio (DER), long-term debt, and short-term debt [18-21]. The capital structure and size of a business significantly influence enterprise value, with larger companies and increased debt financing correlated with elevated enterprise value [22]. Capital structure policy is very important because it has a direct

impact on the company's cost of capital, thereby affecting the company's overall performance and value [23]. Previous studies have shown varying results regarding the relationship between financial performance and capital structure. Duguleană et al. found that leverage had a significant negative impact on ROA, ROE, and net profit margin [24]. Spitsin et al. stated that leverage increases ROA to an optimal point, but then has a negative impact [25]. Kim & Kim found that DER and current ratio have a positive impact on ROA, ROE, and EPS [26]. Dodoo et al. reported that long-term debt and short-term debt have a negative impact on ROA [27]. Tesema et al. findings indicated that both the total debt ratio and long-term debt ratio exert negative and significant influences Return on Assets (ROA), thereby corroborating the pecking order theory [28].

The formulation of the problem in this study includes how leverage, debt to equity ratio, long-term debt, and short-term debt affect the financial performance of FinTech companies' ROA, both partially and simultaneously. In line with that, The purpose of this study is to examine the connection between FinTech companies' capital structure and financial success by measuring the influence of each of these variables on ROA. The findings of this investigation should yield academic benefits, such as contributions to capital structure theory and references for further research, as well as practical benefits for company management in optimizing capital structure, for investors in Choosing investments, and for the public in understanding the financial characteristics of FinTech companies listed on international stock exchanges.

## 2. Literature Review

This study explores several capital structure theories, starting with the Modigliani-Miller Model without taxes [29] which posits that a firm's value is unaffected by its capital structure. However, this view was later revised in the model that includes taxes, demonstrating that debt can enhance firm value through tax benefits known as the tax shield [29]. The Trade-Off Theory highlights that firms seek to balance the tax benefits of debt with agency costs and the potential risk of financial distress to achieve an optimal capital structure [30]. Meanwhile, the Pecking Order Theory suggests that firms prefer to use internal financing first before resorting to external debt or equity [31].

Leverage serves as a key indicator of capital structure, indicating the extent to which a company relies on debt financing. Highly leveraged firms are more vulnerable to insolvency due to higher debt-related costs, which are exacerbated by macroeconomic instability, increasing the economy's sensitivity to shocks [32]. This study uses several ratios to assess leverage, including the Debt to Equity Ratio (DER), which compares total debt to equity [33] Long-term Debt (LTD), indicating the proportion of long-term debt relative to total assets [34] and Short-term Debt (STD), which reflects the company's short-term liabilities [21].

Financial performance involves evaluating specific indicators that measure a company's ability to generate profits [35, 36]. In this research, Return on Assets (ROA) is used as the primary measure of financial performance, indicating how efficiently a business generates profit from its total assets [37]. ROA is selected as the main indicator to evaluate the financial health of FinTech companies, aiming to provide valuable insights for management and investors in making informed strategic decisions.

## 3. Methodology

This research uses a quantitative approach with a descriptive purpose to analyze the relationship between capital arrangement and corporate financial performance. The paradigm used is pragmatism, which allows flexibility in the research approach. This study's unit of analysis is the organization, with minimal involvement of researchers, namely only conducting observations without intervention on the object of research. Data were collected in a longitudinal period, which allows analysis of changes in variables over time. The dependent variable in this research is financial performance, which is quantified using ROA, while the independent variable is capital arrangement, which is quantified through the leverage ratio and DER.

**Table 1.**  
Variable Description.

No	Variables	Indicator	Measurement	Scale
1	Financial Performance (Y)	ROA [24-26]	$ROA = \left( \frac{\text{Net Income}}{\text{Total Assets}} \right) \times 100\%$ (1)	Ratio
2	Capital Structure (X)	Leverage [24, 25, 38]	$\text{Leverage} = \frac{\text{Total Debt}}{\text{Total Assets}}$ (2)	Ratio
		Debt to Equity Ratio [26]	$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$ (3)	Ratio
		Long-term Debt [39]	$LTD = \frac{\text{Long-term Debt}}{\text{Total Assets}}$ (4)	Ratio
		Short-term Debt [39]	$STD = \frac{\text{Short-term Debt}}{\text{Total Assets}}$ (5)	Ratio

This study uses a purposive sampling technique with an initial population of 111 FinTech business, which were then selected into 12 companies that met the criteria for complete financial reporting from Q1 2020 to Q4 2023. The research data comes from the company's financial reports obtained through official websites and Yahoo Finance. Data analysis was carried out to verify the validity of the regression model, conventional assumption tests including multicollinearity, normality, autocorrelation, and heteroscedasticity tests are used.. The normality test determines whether the data is normally distributed, while the multicollinearity test identifies a high relationship between independent variables using VIF and TOL. The autocorrelation test with the Durbin-Watson method is used to detect residual correlation, while the heteroscedasticity test uses Spearman correlation to ensure that the residual variance remains constant. Furthermore, Multiple linear regression analysis is used in this study to assess the connection between financial performance and capital structure, with a regression equation that describes the relationship between independent and dependent variable.

#### 4. Result

This study aims to assess the influence of leverage, debt-to-equity ratio, long-term debt, and short-term debt on the financial performance measured by ROA in FinTech companies. The findings are presented through descriptive statistics and multiple linear regression analysis, offering a detailed overview of the factors affecting ROA. The data gathered have been methodically analyzed to address the research goals and provide an in-depth understanding of how the examined variables impact financial performance.

##### 4.1. Descriptive Analysis

Descriptive analysis is used to understand the characteristics of data on research variables, including ROA, Leverage, DER, LTD, and STD. Descriptive statistics presented include the number of samples (N), minimum and maximum values, average (mean), and standard deviation for each variable.

**Table 2.**  
Descriptive Analysis of Variables.

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	192	-0.09	0.05	-0.0152	0.02958
Leverage	192	0.00	0.70	0.2147	0.20751
DER	192	-1.91	3.25	0.6980	0.86181
LTD	192	0.00	0.99	0.2009	0.21347
STD	192	0.00	0.24	0.0423	0.05501
Valid N (listwise)	192				

The results of the descriptive analysis show that ROA in 192 observations ranges from -0.09 to 0.05, with an average of -0.0152 and a standard deviation of 0.02958, indicating less than optimal financial performance of FinTech companies. Leverage has an average of 0.2147 with a standard deviation of 0.20751, indicating a relatively low level of leverage with quite large variations. DER varies

from -1.91 to 3.25, with an average of 0.6980 and a standard deviation of 0.86181, reflecting significant differences in funding structures. LTD has a mean of 0.2009 and a standard deviation of 0.21347, while STD has a mean of 0.0423 and a standard deviation of 0.05501, indicating that most FinTech firms tend to use less short-term debt in their funding.

#### 4.2. Classical Assumptions

The author conducted a multicollinearity, heteroscedasticity, and normalcy tests combined with a traditional assumption test to see whether the multiple linear regression model (Multiple Regression) met good criteria.

**Table 3.**  
Classical Assumptions.

Classical Assumption Test	Test Method	Criteria	Results	Conclusion
Normality	Kolmogorov-Smirnov	Sig. > 0,05	0,200	Data is normally distributed
Multicollinearity	VIF & Tolerance	VIF < 10, Tolerance > 0,10	VIF: 1,062 - 3,010	No multicollinearity
			Tolerance: 0,332 - 0,941	
Heteroscedasticity	Rho Spearman	Sig. > 0,05	Leverage: 0,062	No heteroscedasticity
			DER: 0,984	
			LTD: 0,638	
			STD: 0,251	
Autocorrelation	Durbin-Watson	du < DW < 4-du	1,8064 < 1,869 < 2,131	No autocorrelation

Based on the results of the classical assumption tests, the regression model satisfies all necessary conditions. The normality test confirms that the residuals follow a normal distribution, the multicollinearity test reveals no correlations among the independent variables, the heteroscedasticity test indicates that the residuals have constant variance, and the autocorrelation test shows the absence of autocorrelation in the residuals. Therefore, the regression model is deemed suitable for use in this study.

#### 4.3. Hypothesis Test

Hypothesis testing is conducted to ascertain the impact of leverage, DER, LTD, and STD on financial performance as measured by ROA. Testing is conducted simultaneously using the F test and partially using the T test. In addition, a determination correlation test ( $R^2$ ) is also conducted to see To what degree the independent variables can explain the variability of ROA.

**Table 4.**  
Simultaneous Test Results.

Hypothesis Test	Analysis Result	Conclusion
F Test (Simultaneous)	Sig. = 0,000 (< 0,05)	Leverage, DER, LTD, and STD simultaneously affect ROA
T Test (Partial)	Leverage: B = 0,055, Sig. = 0,001 (< 0,05)	Leverage has a significant positive impact on ROA
	DER: B = 0,008, Sig. = 0,015 (< 0,05)	DER has a significant positive impact on ROA
	LTD: B = -0,027, Sig. = 0,041 (< 0,05)	LTD has a significant negative impact on ROA
	STD: B = -0,010, Sig. = 0,785 (> 0,05)	STD has no effect on ROA
Determination Correlation Test	$R^2 = 0,213$	21.3% of ROA variation is explained by the independent variables, the rest by other variables

The outcome of the hypothesis test display that leverage and DER have a positive impact on ROA, while LTD has a negative effect. STD has no effect on ROA. Simultaneously, all independent variables affect ROA. The  $R^2$  value of 21.3% indicates that this model still has limitations in explaining variations in ROA, so there are other factors that influence it. Based on Table 4.7, the results of the multiple linear regression equation model are:

$$Y = -0,027 + 0,055X_1 + 0,008X_2 - 0,027X_3 - 0,010X_4 + e \quad (6)$$

Where Y = ROA, X1 = Leverage, X2 = Debt to equity ratio, X3 = long-term debt, X4 = short-term debt, e = Error.

Based on the regression equation, leverage (X1) and debt to equity ratio (X2) contribute positively to ROA, with leverage having a greater influence. Conversely, long-term debt (X3) and short-term debt (X4) have a negative impact, indicating that an increase in both long-term and short-term debt tends to decrease ROA.

Leverage has a positive effect on ROA in FinTech companies, in line with the research of Aiman & Rahayu, which shows that leverage improves banking financial performance [40]. This supports the notion that the capital structure exerts a substantial positive influence on profitability and dividend policy [41]. FinTech companies use debt for expansion, technological innovation, and operations to increase profitability. However, the effectiveness of leverage depends on optimal debt management so that interest costs do not reduce profits. This result is different from the findings of Aini, who found that leverage has a negative impact on financial performance [42].

DER has a positive impact on ROA, as found by Lisdayani et al., who found that Return on equity is significantly impacted by the debt to asset ratio in insurance companies [43]. High DER allows FinTech companies to fund business expansion and technological innovation. However, high interest rates can be an obstacle if debt is not managed properly. In contrast to the findings of Hatami & Hendratno, which stated that DER had no effect on ROA, this difference may be caused by different industrial sectors and debt management strategies [44].

A greater long-term debt ratio correlates with increased returns on assets [45]. However, LTD has a negative impact on ROA, as research by Yanti et al., which found that LTD has a significant impact on Return on Equity. LTD increases interest expenses and reduces the company's financial flexibility, which can reduce profitability. If not managed properly, the company will have difficulty allocating funds for innovation and expansion [46]. Managers must exercise significant caution when determining the ideal amount of long-term debt to incorporate into their company's capital structure [47].

STD has no impact on ROA, in line with Yanti's research Yanti and Sisdianto [46] which shows that short-term debt has no significant impact on Return on Equity. STD in FinTech companies is generally used for routine operations and does not have a direct impact on profitability. Good cash management allows companies to manage this debt without causing significant financial stress.

Leverage, DER, LTD, and STD simultaneously affect ROA. These factors shape the company's funding structure and determine the level of profitability. If managed optimally, companies can use debt for growth and innovation without increasing financial risk excessively. However, an imbalance in debt management can reduce profitability and increase the company's financial burden. According to Al-Haddad et, Corporate managers ought to diversify their financing strategies to improve both their historical and prospective financial performance metrics in the short and long term [48].

## 5. Conclusion and Policy Implications

This study shows that leverage and DER have a positive effect on ROA of FinTech companies, while LTD has a negative impact, and STD has no significant impact. With an R-square value of 21.3%, this model explains that capital structure plays a role in determining profitability, although there are other factors that also influence it. The policy implications that can be taken are that FinTech companies need to optimize the use of leverage and DER in financing operations and expansion, by ensuring that long-term debt is not excessive so as not to burden the company's finances. Financial

authorities and regulators can consider supervisory policies on FinTech capital structures to encourage healthier financial management practices, thereby increasing the stability of the FinTech industry.

### Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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The researchers formally declare that this academic work constitutes an authentic, methodologically rigorous, and fully disclosed account of investigative activities. All essential components of the study design, implementation, and analysis have been inclusively documented, with substantive explanations provided for any modifications to predetermined research protocols. The scholarly endeavor maintains unwavering compliance with international ethical standards governing scientific inquiry, encompassing experimental procedures, data handling protocols, and scholarly communication practices.

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### References

- [1] N. L. W. S. R. Ginatara, *Financial technology, technology-based financial systems in the digital era*. Jakarta: Yayasan Kita Menulis, 2020.
- [2] B. A. Harahap, P. B. Idham, A. C. M. Kusuma, and R. N. Rakhman, "The development of financial technology related to central bank digital currency (CBDC) on the transmission of monetary and macroeconomic policies," *Bank Indonesia*, vol. 2, no. 1, pp. 1-80, 2017.
- [3] R. Agrawal and M. Kimball, "Breaking through the zero lower bound," IMF Working Paper No. 15/224. International Monetary Fund. <https://doi.org/10.5089/9781513567327.001>, 2015.
- [4] KPMG, *The pulse of Fintech 2018*. London, UK: KPMG, 2018.
- [5] AB Accelerator, *The rise of FinTech in MENA: Jordan Edition*. Amman, Jordan: Arab Bank (ABX), 2020.
- [6] P. Giudici, "Fintech risk management: A research challenge for artificial intelligence in finance," *Frontiers in Artificial Intelligence*, vol. 1, pp. 1-6, 2018. <https://doi.org/10.3389/frai.2018.00001>
- [7] C. B. Lontchi, B. Yang, and K. M. Shuaib, "Effect of financial technology on SMEs performance in Cameroon amid COVID-19 recovery: The mediating effect of financial literacy," *Sustainability*, vol. 15, no. 3, p. 2171, 2023. <https://doi.org/10.3390/su15032171>
- [8] Google, "Google trends," Retrieved: <https://trends.google.co.id/trends/explore?date=2009-01-01%202024-10-09&q=Fintech&hl=id>, 2024.
- [9] J. CFI Team & Schmidt, *Understanding the fintech industry*. Toronto, Canada: Corporate Finance Institute (CFI), 2021.
- [10] J. Kagan, E. Estevez, and S. Kvilhaug, "Financial technology (Fintech): Its uses and impact on our lives. Investopedia," Retrieved: <https://www.investopedia.com/terms/f/fintech.asp>, 2024.
- [11] T. Simons, "A brighter future for fintechs in 2024? Thomson Reuters," Retrieved: <https://www.thomsonreuters.com/en-us/posts/corporates/fintechs-future-2024/>, 2024.
- [12] A. Sahbani, "OJK emphasizes transparency principle in fintech industry. Online Law," Retrieved: <https://www.hukumonline.com/berita/a/ojk-tekan-prinsip-transparansi-pada-industri-fintech-lt5aa63d5da2668>, 2025.
- [13] Sinarmas Land, "Industri fintech bangkrut, Ini Penyebabnya. Sinarmas Land," Retrieved: [https://ecatalog.sinarmasland.com/article/keuangan-investasi/penyebab-industri-fintech-bangkrut#3.\\_masalah\\_permodalan\\_dan\\_keuangan](https://ecatalog.sinarmasland.com/article/keuangan-investasi/penyebab-industri-fintech-bangkrut#3._masalah_permodalan_dan_keuangan), 2025.
- [14] T. I. Susilowati and W. Mawardi, "The role of capital structure as a mediator of profitability, company size, and business risk on company value (Study on Exporters Listed on the Indonesia Stock Exchange 2019-2023)," *Indonesian Interdisciplinary Journal of Sharia Economics*, vol. 8, no. 1, pp. 2326-2343, 2025. <https://doi.org/10.31538/ijse.v8i1.5968>
- [15] A. K. Wardani and F. R. Dewi, "Capital structure analysis of the financial performance of major sector companies listed on the LQ45 Index of the Indonesia Stock Exchange," *Jurnal Manajemen dan Organisasi*, vol. 6, no. 2, pp. 134-148, 2015.



- [16] D. Syafitri and F. Fauzan, "The influence of profitability, sales growth, asset structure, and liquidity on capital structure in food and beverage sub-sector companies listed on the Indonesia Stock Exchange 2021–2023," *Indonesian Interdisciplinary Journal of Sharia Economics*, vol. 8, no. 2, pp. 4118–4136, 2025. <https://doi.org/10.31538/ijse.v8i2.6498>
- [17] M. I. Mahmoud, A. Surwanti, and F. Pribadi, "Bibliometric analysis of trends and patterns in capital structure research: A decade-long review (2012–2022)," *Multidisciplinary Reviews*, vol. 7, no. 2, pp. 2024025–2024025, 2024. <https://doi.org/10.33736/mr.2024025>
- [18] B. A. Arsadena, "Faktor-faktor yang memengaruhi struktur modal dengan profitabilitas sebagai variabel intervening," *Jurnal Ilmu Manajemen*, vol. 8, no. 3, pp. 1011–1025, 2020. <https://doi.org/10.26740/jim.v8n3.p1011-1025>
- [19] E. F. Brigham and J. F. Houston, *Fundamentals of financial management*, 12th ed. Mason: South-Western Cengage Learning, 2009.
- [20] J. Winarto, "The determinants of manufacturer firm value in Indonesia stock exchange," *International Journal of Information, Business and Management*, vol. 7, no. 4, pp. 1–10, 2015.
- [21] A. Ramadhan, "Pengaruh utang perusahaan terhadap kinerja keuangan," *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi*, vol. 3, no. 2, pp. 16–27, 2019. <https://doi.org/10.31955/mea.vol3.iss2.pp>
- [22] I. Akin, M. Akin, H. Satioglu, and M. Jhamb, "Influence of growth, capital structure, profitability, and size on FTSE 100 enterprise value," *Journal of Corporate Accounting & Finance*, vol. 36, no. 2, pp. 157–168, 2025. <https://doi.org/10.1002/jcaf.22761>
- [23] I. Nurhayati, "The impact of capital structure, profitability, and dividend payment on firm value: Evidence from Indonesian banking," in *Proceedings of the 4th Asia Pacific Conference on Industrial Engineering and Operations Management, Ho Chi Minh City, Vietnam*, 2023, doi: <https://doi.org/10.46254/ap04.20230250>.
- [24] C. Duguleană, L. Duguleană, and K.-D. Deszke, "Financial performance and capital structure—an econometric approach for Romanian e-commerce companies during the COVID-19 pandemic," *Economic Analysis and Policy*, vol. 83, pp. 786–812, 2024. <https://doi.org/10.1016/j.eap.2024.05.024>
- [25] V. Spitsin, D. Vukovic, S. Anokhin, and L. Spitsina, "Company performance and optimal capital structure: evidence of transition economy (Russia)," *Journal of Economic Studies*, vol. 48, no. 2, pp. 313–332, 2021. <https://doi.org/10.1108/JES-09-2019-0444>
- [26] Y. J. Kim and h. C. Kim, "The impact of capital structure on the profitability efficiency of ICT FIRMS," in *2021 21st ACIS International Winter Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD-Winter)*, 2021: IEEE, pp. 127–135.
- [27] R. N. A. Dodoo, M. Kumi, and T. Mangudhla, "The effect of capital structure on firm performance: Empirical evidence from emerging economy," *EuroMed Journal of Management*, vol. 5, no. 1, pp. 83–99, 2023. <https://doi.org/10.1504/EMJM.2023.10052497>
- [28] T. N. Tesema, "The effect of capital structure on performance: empirical evidence from manufacturing companies in Ethiopia," *Cogent Economics & Finance*, vol. 12, no. 1, p. 2300926, 2024. <https://doi.org/10.1080/23322039.2023.2300926>
- [29] F. Modigliani and M. H. Miller, "The cost of capital, corporation finance and the theory of investment," *The American Economic Review*, vol. 48, no. 3, pp. 261–297, 1958.
- [30] S. C. Myers, "Capital structure puzzle," *Journal of Finance*, vol. 39, no. 3, pp. 575–592, 1984.
- [31] R. Brealey, S. Myers, and F. Allen, *Principles of corporate finance*, 10th ed. New York: Douglas Reiner, 2011.
- [32] R. E. Essel, "The effect of capital structure on corporate performance: Panel empirical evidence of an emerging capital market," *Journal of African Business*, vol. 25, no. 2, pp. 224–263, 2024. <https://doi.org/10.1080/15228916.2023.2170856>
- [33] Kasmir, *Financial report analysis*. Jakarta: Rajawali Perss, 2012.
- [34] I. Meshack, F. Owa, E. Nwadior, and C. Chiedu, "Long term debt financing and firm financial performance in Nigerian listed firms," *European Journal of Accounting, Auditing and Finance Research*, vol. 10, no. 4, pp. 52–62, 2022. <https://doi.org/10.37745/ejaaf.2013/vol10no4pp.52-62>
- [35] L. Diana and M. S. Ososoga, "The influence of liquidity, solvency, asset management and company size on financial performance," *Jurnal Akuntansi Kontemporer*, vol. 12, no. 1, pp. 20–34, 2020.
- [36] L. Suzan and A. Ramadhanti, "Business strategy, asset management, capital structure and financial performance of food and beverage industry in Indonesia," in *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 2022, pp. 2415–2424.
- [37] A. Sartono, *Financial management theory and application*. Yogyakarta: BPFE, 2010.
- [38] H. Fitriyani and F. T. Kristanti, "Corporate governance and capital structure: Evidence from Indonesian banking," in *Proceedings of the 4th Asia Pacific Conference on Industrial Engineering and Operations Management, Ho Chi Minh City, Vietnam*, 2023, pp. 832–841.
- [39] V. Prenaj, I. Miftari, and L. Pula, "The impact of capital structure on company performance: Empirical evidence from Kosovo," *Romanian Journal of Economic Forecasting*, vol. 27, no. 1, pp. 87–102, 2024.

- [40] R. Aiman and S. Rahayu, "The influence of good corporate governance, leverage on financial performance (Case Study on National Private Commercial Banks and State-Owned Commercial Banks Listed on the Indonesia Stock Exchange in 2014–2017)," *eProceedings of Management*, vol. 6, no. 2, pp. 3190–3199, 2019.
- [41] A. A. Tirtamara and L. G. S. Artini, "The effect of capital structure on company value with profitability and dividend policy as a mediating variable," *Return: Study of Management, Economic and Bussines*, vol. 3, no. 7, pp. 440–454, 2024. <https://doi.org/10.37745/return.2024.3.7.440-454>
- [42] H. N. Aini and L. Suzan, "The influence of intellectual capital, company size, and leverage on financial performance," *Jurnal Ilmiah Akuntansi Peradaban*, vol. 9, no. 2, pp. 199–209, 2023.
- [43] F. Lisdayani, T. Mandaraira, M. Devilishanti, Mardaleta, and M. A. Afni, "The effect of debt to equity ratio and debt to asset ratio on return on equity in the insurance company sector on the IDX in 2018–2023 the insurance sector in Indonesia shows significant growth (Service Authority Decrease in Return on Equity and efficiency)," *Manuhara Journal of Management and Business Science Research Center*, vol. 3, no. 1, pp. 199–217, 2025. <https://doi.org/10.61132/manuhara.v3i1.1520>
- [44] M. R. Hatami and Hendratno, "The effect of current ratio, debt to equity ratio and total asset turnover on return on assets in construction companies listed on the Indonesia Stock Exchange.," *e-Proceeding Manajemen*, vol. 7, no. 1, pp. 696–701, 2020.
- [45] A. Olawale and E. Obinna, "An empirical analysis of capital structure, liquidity and banking sector performance in Nigeria (2011–2021)," *Journal of Finance and Economics*, vol. 11, no. 3, pp. 149–159, 2023. <https://doi.org/10.12691/jfe-11-3-3>
- [46] O. D. Yanti and E. Sisdianto, "Analysis of the influence of debt policy on company financial performance," *Budget: Journal of Economic and Accounting Publication*, vol. 2, no. 2, pp. 221–238, 2024. <https://doi.org/10.61132/anggaran.v2i2.581>
- [47] F. Ahmed, M. U. Rahman, H. M. Rehman, M. Imran, A. Dunay, and M. B. Hossain, "Corporate capital structure effects on corporate performance pursuing a strategy of innovation in manufacturing companies," *Heliyon*, vol. 10, no. 3, p. e02408, 2024. <https://doi.org/10.1016/j.heliyon.2024.e02408>
- [48] L. M. Al-Haddad, Z. Saidat, C. Seaman, and A. M. Gerged, "Does capital structure matter? Evidence from family-owned firms in Jordan," *Journal of Family Business Management*, vol. 14, no. 1, pp. 64–76, 2024. <https://doi.org/10.1108/JFBM-09-2022-0115>