

**ADVANCED INTERNATIONAL JOURNAL
OF BUSINESS, ENTREPRENEURSHIP
AND SMES
(AIJBES)**www.gaexcellence.com/aijbess**CAPITAL STRUCTURE DETERMINANTS AND SDG
ALIGNMENT: EVIDENCE FROM MALAYSIA'S
CONSUMER GOODS SECTOR**

Muhammad Adlan Mohd Nor¹, Ani Asmaa Asli^{2*}, Wan Nurashikin Mahmood³, Siti Syamira Mohd Ramli⁴, Nur Azwani Mohamad Azmin⁵, Nur Afifah Yussof⁶, Nur Haika Elisa Jusoh⁷, Norhasyimatul Naquiah Ghazali⁸

¹Faculty of Business and Management, Universiti Teknologi MARA, Terengganu, Malaysia

✉ 2023449386@student.uitm.edu.my

iD <https://orcid.org/0009-0007-8996-6387>

²Faculty of Business and Management, Universiti Teknologi MARA, Terengganu, Malaysia

✉ aniasmaa@uitm.edu.my

iD <https://orcid.org/0009-0001-9885-2548>

³Faculty of Business and Management, Universiti Teknologi MARA, Pahang, Malaysia

✉ wnurashikin@uitm.edu.my

iD <https://orcid.org/0009-0005-7612-4207>

⁴Faculty of Business and Management, Universiti Teknologi MARA, Pahang, Malaysia

✉ sitsyamira@uitm.edu.my

iD <https://orcid.org/0009-0008-0480-0511>

⁵Faculty of Business and Management, Universiti Teknologi MARA, Terengganu, Malaysia

✉ nurazwani@uitm.edu.my

iD <https://orcid.org/0000-0002-4467-3501>

⁶Fakulti Pengurusan Perniagaan, Universiti Teknologi MARA Terengganu, Malaysia

✉ 2023899076@student.uitm.edu.my

iD <https://orcid.org/0009-0008-4297-167X>

⁷Fakulti Pengurusan Perniagaan, Universiti Teknologi MARA Terengganu, Malaysia

✉ 2023400352@student.uitm.edu.my

iD <https://orcid.org/0009-0003-1661-2466>

⁸Bahagian Penyelidikan (BPP), Perpustakaan Negara Malaysia, Kuala Lumpur, Malaysia

✉ norhasyimatul@pnm.gov.my

iD <https://orcid.org/0009-0005-3977-7639>

*Corresponding Author

Article Info:**Article history:**

Received date: 30.04.2026

Revised date: 20.05.2026

Accepted date: 23.06.2026

Published date: 30.06.2026

Abstract:

The Malaysian consumer goods industry is currently facing increasing financial pressure due to rising interest rates, inflationary pressures, and economic uncertainty. These challenges have significantly influenced firms' financing decisions and their ability to maintain sustainable capital structures. Capital structure remains an important component for corporate financial management because it determines how a firm balances its debt and equity financing while influencing financial risk and firm value. Therefore, analyzing the determinants of capital structure choices is important to maintain a firm's long-term financial

To cite this document:

Nor, M. A. M., Asli, A. A., Mahmood, W. N., Ramli, S. S. M., Azmin, N. A. M., Yussof, N. A., Jusoh, N. H. E., & Ghazali, N. N., (2026). Capital Structure Determinants and SDG Alignment: Evidence from Malaysia's Consumer Goods Sector. *Advanced International Journal of Business Entrepreneurship and SMEs*, 8 (28), 750-

stability and strengthening its ability to adapt to changing business conditions. Despite the importance of capital structure in ensuring long-term financial stability as SDG 8, limited studies have examined impact of firm-specific determinants on capital structure decisions among Malaysian consumer goods companies. Existing Malaysian studies tend to examine broader industrial sectors or focus on corporate governance and firm performance rather than analysing the combined effects of asset structure, earnings volatility, financial flexibility, and growth opportunities on firms' financing decisions. Furthermore, recent economic challenges, including rising interest rates and inflationary pressures, have altered corporate financing behaviour, creating a need for updated evidence within the Malaysian consumer goods industry. Therefore, this research observes the relationship between asset structure, earnings volatility, financial flexibility, and growth opportunities on the capital structure of consumer goods companies listed on Bursa Malaysia from 2015 to 2024. To determine the most appropriate model requirement, both the Fixed Effects Model (FEM) and Random Effects Model (REM) were estimated and evaluated using Hausman test. The findings provide empirical support for the Pecking Order Theory within the Malaysian consumer goods sector. The results reveal that asset structure and financial flexibility is associated with firm leverage, whereas earnings volatility exerts a significant negative effect.

DOI: 10.35631/AIJBS.828047

Keyword:

Capital, Consumer Goods, Financing, Inflation, Panel Data Regression, Artificial Intelligence, SDG



© The authors (2026). This is an Open Access article distributed under the terms of the Creative Commons Attribution (CC BY NC) (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited. For commercial re-use, please contact ijmoe@gaexcellence.com.

Introduction

In this digital era, artificial intelligence (AI) is known as powerful force reshaping corporate financial management, particularly in capital structure decision-making, through advanced data-processing capabilities (Eliasy & Przychodzen, 2020; Zhao & Liu, 2025). Studies have further demonstrated that AI-based financial models improve cost of equity estimation, stock price prediction, and balance sheet management, while accelerating capital structure adjustment processes (Akdogan, 2025; Mertzanis, 2026). Within this context, capital structure represents the mix of financing sources a company employs for supporting its operations and growth, primarily consisting of equity, debt, and hybrid instruments such as preference shares and convertible bonds (Putri & Willim, 2024). The principal objective of capital structure is to reduce overall cost of capital while increasing company worth without exposing the company to excessive financial risk (Mujiatun, Rahmayati, & Ferina, 2021).

In the global context, capital structure decisions are shaped by differences in institutional frameworks, legal systems, and economic environments across countries (Metel'skaya, 2021). Companies that are listed in the developed capital markets of the United States, the United Kingdom and Japan, tend to have better access to well-developed capital markets and hence can afford to depend further on equity issues and corporate bond financing (Khan & Qasem, 2024). Conversely, companies in the emerging markets are more likely to rely on bank loans owing to the inadequacy and inaccessibility of the depth and liquidity in equity and bond markets (Khan, Akhtar, & Qasem, 2024). Several international factors determine these financing decisions such as corporate tax regimes, effectiveness of investor protection statutes, the degree of financial markets, current interest rates and macroeconomic sanity (Metel'skaya, 2021). The empirical evidence of international studies has been attuned with consistent results that more profitable firms utilize less debt level, and it proves the Pecking Order Theory (Putri & Willim, 2024). Also, leverage correlates positively with firm size and asset tangibility, and the higher the growth opportunities of firms, the lower their debt ratios tend to be to minimize financial risks and underinvestment issues (Putri & Willim, 2024).

The capital structure decisions are highly determined by the financial system, the regulatory environment, and the existing ownership structure in the Malaysian context (Rehan, Hadi, Hussain, & Hye, 2023). Malaysia has a bank-oriented financial system, as companies in the country are high dependent on bank loans and other internal sources of finances, especially retained earnings, as their major sources of capital (Khatib, Abdullah, & Amosh, 2024). Equity issuance can be used, but in practice it is not utilized, since it can result in watering down ownership and loss of control, which are major fears of controlling shareholders (Rehan, Hadi, Hussain, & Hye, 2023). These concerns are pertinent considering that most of the Malaysian corporations are marked by the high degree of ownership concentration, such as those which have a family-owned business or those which are government-linked corporations (GLCs) (Rehan, Hadi, Hussain, & Hye, 2023). Consequently, these companies preferred using debt financing more than equity and their financing approach would be more conservative to ensure they have control and stability without allowing outside ownership to affect them (Rehan, Hadi, Hussain, & Hye, 2023).

Understanding the determinants of a company's capital structure is a key component of financial management, specifically in dynamic markets like Malaysia. This research investigates the impact of asset structure, earnings volatility, financial flexibility, and growth opportunities on the capital structure of consumer goods companies listed on Bursa Malaysia. These factors are important in shaping firms' financing choices, managing financial risk, and supporting their long-term growth and sustainability (Zulkefle & Nawati, 2022). Based on the First Half 2025 *Financial Stability Review* by Bank Negara Malaysia, the average debt-to-equity ratio for the business sector stood at 23.2% over the past five years. This indicates that the capital structure of Malaysian businesses remains broadly stable, with companies relying more on equity financing relative to debt. This is further supported by recent data from 2024 to 2025, which shows a decline in the debt-to-equity ratio (Bank Negara Malaysia, 2025).

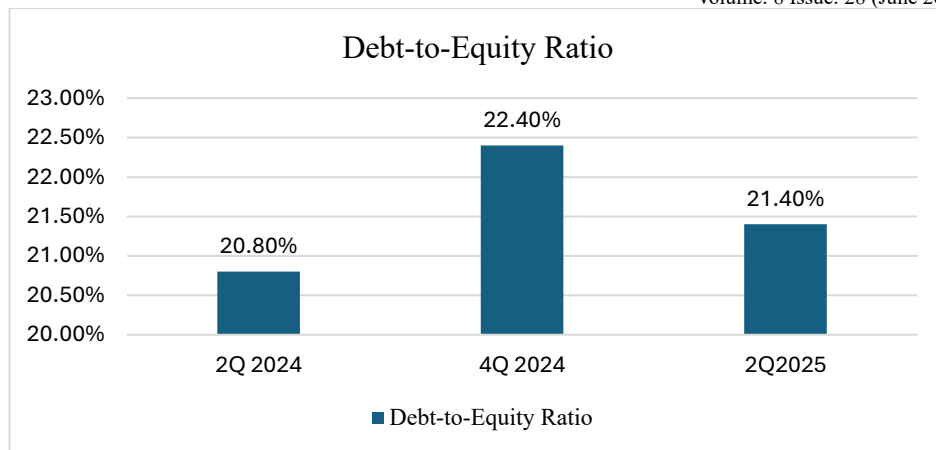


Figure 1: Debt-To-Equity Ratio (Bank Negara Malaysia, 2025)

The focus of this study is consistent with the core principles of United Nations Sustainable Development Goal (SDG) 8, which highlights decent work and economic growth. SDG 8 concentrates on encouraging effective employment, financial stability, and resilient business development (ILO, 2023). In the context of Malaysian consumer goods companies, effective capital structure management is a critical determinant in supporting corporate sustainability, sustaining business competitiveness, and reducing financial distress during periods of economic uncertainty. Companies with stable financing structures are more capable of sustaining operations, preserving hiring opportunities, and supporting long-term economic growth. Therefore, understanding the determinants of capital structure may assist companies and policymakers to developed stronger financial strategies that support sustainable corporate growth and economic resilience in Malaysia.

Literature Review

Capital Structure as Dependent Variable

Capital structure represents combination of debt and equity capital used by company to support its activities and achieve its long-term financial growth objectives (Rehan, Hadi, Hussain, & Hye, 2023). It is often measured as total debt to total assets (Putri & Willim, 2024). According to Putri and Willim, 2024 and Panda and Nanda, 2020, capital structure of firms remains a critical aspect in financial decision making, influenced by various internal factors such as asset structure, earnings volatility, financial flexibility, and growth opportunities. Recent empirical research highlights how these variables shape leverage decisions within firms, especially in context of emerging markets like Malaysia (Khatib, Abdullah, & Amosh, 2024).

Asset Structure as Independent Variable

Asset structure refers to the fraction of fixed assets relative to company's total assets, which indicates how funds are allocated among different asset components (Mujiatun, Rahmayati, & Ferina, 2021). It is often calculated as the ratio of tangible assets to total assets, shows a positive impact on leverage among Indonesian consumer goods firms (Putri & Willim, 2024). Firm with a larger share of tangible assets can borrow more easily, as these assets provide security for lenders and mitigate agency risk associated with debt (Mujiatun, Rahmayati, & Ferina, 2021).

Earnings Volatility as Independent Variable

Earnings volatility describes the degree to which a company's earnings fluctuate over time, indicating their level of stability or instability (Putri & Willim, 2024). Earnings volatility is measured by the standard deviation of earnings. It is calculated using earnings before interest and taxes (EBIT) multiplied by average total assets over a specified period (Rammala & Toerien, 2024). In an analysis of Nababan and Lee (2025), earnings volatility does not possess statistically significant direct effect on leverage, suggesting that fluctuations in earnings may not strongly determine debt ratios once other factors are considered. This result aligns with findings by Putri and Willim (2024), who similarly observed no effect of earnings volatility in the consumer goods sector.

Financial Flexibility as Independent Variable

Financial flexibility means a firm's capacity to respond effectively to positive or negative shocks by adjusting to changes in its investment opportunities (Lambrinoudakis, Skiadopoulos, & Gkionis, 2019). Financial flexibility, typically measured by retained earnings relative to total assets, cash holdings, or a firm's strength to access external financing (Putri & Willim, 2024). Financial flexibility is found to be positively associated with leverage in sample consumer goods firms (Chandra, Junaedi, Wijaya, & Ng, 2022). This indicates that firms with higher internal funds or greater borrowing capacity are more likely to employ debt, as financially flexible firms can comfortably service obligations and adjust to changing conditions (Chandra, Junaedi, Wijaya, & Ng, 2022).

Growth Opportunity as Independent Variable

Growth opportunity refers to the degree to which a company has the potential to expand and develop in the future (Nufyar & Mulyani, 2023). Growth opportunities are measured using the market-to-book ratio, which is calculated by dividing the market price per share by the book value per share. (Panda & Nanda, 2020). Based on Nababan and Lee (2025), analysis indicates that growth opportunities have a weak or negative relationship with leverage. Firms with greater growth potential appear less inclined to rely on debt financing (Panda & Nanda, 2020). The variables were illustrated as research framework below in Figure 2.

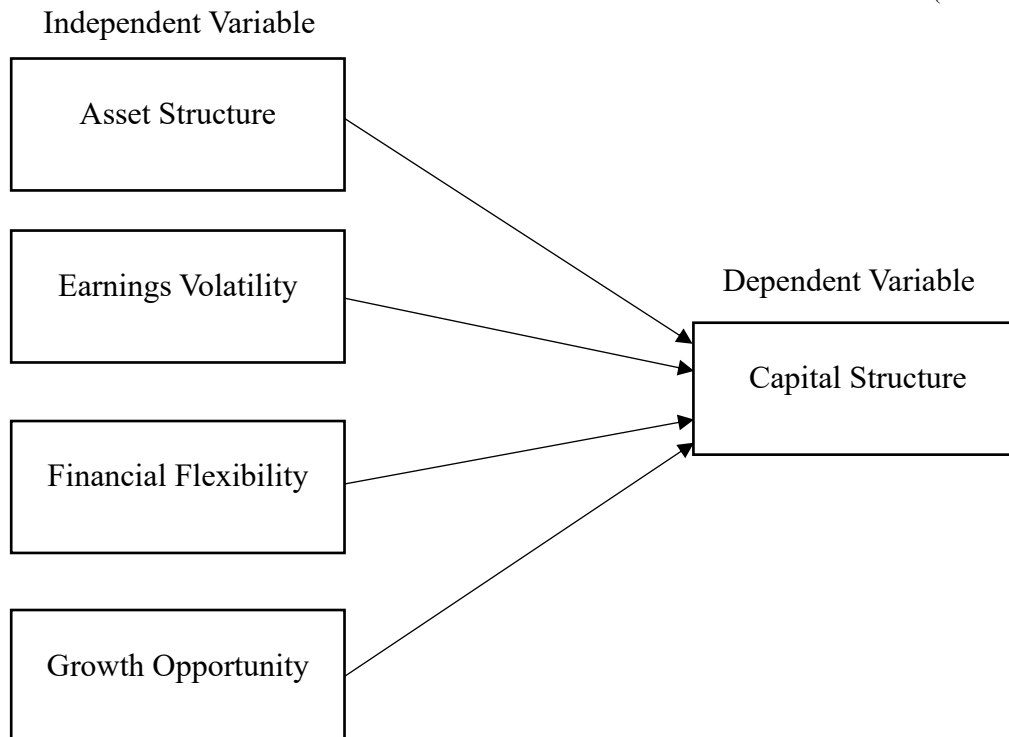


Figure 2: Research Framework

Methodology

This study research design is quantitative research based on the use of panel data to investigate the time-relation between the variables. An analysis based on panels can be used to estimate individual-specific effects and time effects. There is a collection of data in various entities at various time periods, which increases the strength and effectiveness of the estimations. The data were based on 14 listed companies in Bursa Malaysia. The collected data are analyzed using appropriate statistical techniques which is E-Views to identify relationships and significant effects among variables. It uses panel data regression, including fixed effects and random effects model to address unobserved heterogeneity to facilitate causal inference.

The dependent variable for this study is Capital Structure, commonly calculated through leverage ratios. The independent variables include asset structure, earnings volatility, financial flexibility, and growth opportunities, selected based on their strong theoretical and empirical relevance in prior capital structure studies (Putri & Willim, 2024).

The capital structure (CP) is used as the dependent variable to reflect firms' financing decisions, while asset structure (AS), earning volatility (EV), financial flexibility (FF), and growth opportunities (GO) are selected as independent variables because they represent key firm specific factors influencing leverage decisions. The empirical model is specified as follow:

$$CP_{i,t} = \alpha_0 + AS_{i,t} + EV_{i,t} + FF_{i,t} + GO_{i,t} + \varepsilon_{i,t}$$

Table 1 shows the measurement criteria for the research variables.

Table 1: Variables Definition and Measurement

Variable	Proxy	Abbreviation	Measurement
Capital Structure	Total Debt to Total Assets	CP	Total Debt / Total Assets
Asset Structure	Fixed Asset to Total Assets	AS	Fixed Assets / Total Assets
Earnings Volatility	Standard Deviation of EBIT to Total Assets	EV	Standard Deviation of EBIT / Total Assets
Financial Flexibility	Retained Earnings to Total Assets	FF	Retained Earnings / Total Assets
Growth Opportunity	Market-to-Book Value Ratio	GO	Market per share price / Book value per share

Result and Discussion

Redundant Fixed Effect

The Cross-section F-probability is 0.0000. Since the value is below 0.05, the null hypothesis that fixed effects are redundant is rejected. Therefore, the FEM as in Figure 3 is preferred.

Figure 3: The Result of Redundant Fixed Effects Tests

Variable	t-Statistic	Prob
C	6.597643	0.0000
AS	2.504187	0.0135
EV	-3.634993	0.0004
FF	-7.316882	0.0000
GO	-3.447632	0.0008
R-squared		0.404698
F-statistic		22.94391

Random Effects Model (REM)

The Random Effects Model (REM) believes the difference between entities is random and not correlated with independent variables. The R-squared of the REM is weighted to 0.6025. All the variables such as GO ($p=0.0387$) are relevant in this model as in Figure 4.

Figure 4: The Result of Random Effects Model

Variable	t-Statistic	Prob.
C	6.432680	0.0000
AS	5.207848	0.0000
EV	-5.172394	0.0000
FF	-10.63410	0.0000
GO	-2.087998	0.0387

R-squared	0.602596
F-statistic	51.17614

Hausman Test

The Hausman Test result as in Figure 5. Because p-value is less than 0.05, the null hypothesis is rejected, concluding that FEM is the most appropriate and robust model for this specific study on Malaysian companies.

Figure 5: The Result of Hausman Test

Variable	t-Statistic	Prob.
C	7.300268	0.0000
AS	5.207313	0.0000
EV	-5.375525	0.0000
FF	-10.84297	0.0000
GO	-1.580211	0.1166
R-squared		0.888559
F-statistic		57.22037

Conclusion

This study investigated the capital structure determinants of Malaysian consumer goods industry that affecting financing decisions of firms such as the asset structure, earnings volatility, financial flexibility and growth opportunities. While adhering the Sustainable Development Goal (SDG) 8 and Pecking Order Theory, the research postulates that companies will use internal capital over debt and equity as they encounter the 2025 economic hardships of increased interest rates and inflation. The research framework assumes that the structure of assets enables borrowing to be based on collateral as well as earnings risk and growth may not warrant high debt levels to maintain stability and financial position. The research uses the quantitative approach of panel data design considering 14 listed corporations between 2015 and 2024 with Multiple Regression Analysis comprising Fixed Effect (FEM) and Random Effect (REM) models. The FEM results reveal that asset structure has positive effect on capital structure, where a 1% increase in Asset Structure (AS) increases Capital Structure (CP) by 0.383%, whereas earning volatility and financial flexibility have significant negative effects, with a 1% increase in Earnings Volatility (EV) and Financial Flexibility (FF) reducing CP by 2.217% and 0.899%, respectively. The adjusted R-squared illustrates 87.30% of the variation in capital structure is defined by AS, EV, and FF, demonstrating strong explanatory power. Therefore, the final valid model indicating that firm-specific factors in Malaysia significantly affect capital structure of consumer goods companies.

-
- Acknowledgements:** The authors sincerely thank Universiti Teknologi MARA (UiTM) for its support and providing resources that made this research possible. The authors also feel grateful to their colleagues and peers for their useful suggestions and constructive feedback throughout the research process. Their contributions really important in strengthening and improving the quality of this paper.
- Funding Statement:** No Funding
- Conflict of Interest Statement:** The authors certify that there are no conflicts of interest associated with this work. Each individual listed as an author participated in the paper's development and has fully reviewed and approved the final manuscript prior to its submission to the International Journal of Modern Education.
- Ethics Statement:** The authors declare that this research did not utilize human subjects, animals, or sensitive data subject to ethical approval. Furthermore, the authors affirm the work was executed in accordance with established standards of academic integrity and publishing ethics.
- Author Contribution Statement:** All authors collectively contributed to the data collection, interpretation, conceptualization, analysis, and methodology of this study. All authors also played respective role for the drafting, literature review, and critical revision of the manuscript, and provided approval for its submission.
-

References

- Akdogan, Y. E. (2025). Artificial intelligence-based capital structure management: A comparative analysis of sectoral dynamics of leverage. In *Machine learning and modeling techniques in financial data science* (pp. 253–274). IGI Global Scientific Publishing.
- Akram, H. M., Ahmad, T., Kausar, N., & Kareem, A. (2023). Degree of Financial Flexibility and its Impact on Investment Activities,. *journals*, 15.
- Bank Negara Malaysia. (2025). Retrieved from Bank Negara Malaysia: https://www.bnm.gov.my/documents/20124/19635466/fsr25h1_en_ch1b.pdf
- Eliasy, A., & Przychodzen, J. (2020). The role of AI in capital structure to enhance corporate funding strategies. *Array*, 6, 100017.
- Chandra, T., Junaedi, A., Wijaya, E., & Ng, M. (2022). The impact of co-structure of capital, profitability and corporate growth opportunities on stock exchange in Indonesia. *Emerald*, 1-24. doi:10.1108/JEAS-08-2019-0081
- ILO, I. L. (2023, 8 1). *Sustainable Development Goal #8: Decent Work and Economic Growth*. Retrieved from International Labour Organization: <https://www.ilo.org/topics-and-sectors/decent-work-and-2030-agenda-sustainable-development/sustainable-development-goal-8-decent-work-and-economic-growth>
- Khan, S., Akhtar, T., & Qasem, A. (2024). Dynamics of capital structure determinants: empirical evidence from GCC countries. *Future Business Journal*, 1-18.
- Khan, S., & Qasem, A. (2024, April 25). *Are the firms' capital structure and performance*. Retrieved from Taylor & Francis: <https://www.tandfonline.com/doi/full/10.1080/23311975.2024.2344749>
- Khatib, S. F., Abdullah, D. F., & Amosh, H. A. (2024). The influence of board policy setting on firm performance in Malaysia: the interacting effect of capital structure. *Corporate Governance (2024)*, 1360-1383.
- Lambrinoudakis, C., Skiadopoulou, G., & Gkionis, K. (2019, March 25). Capital structure and financial flexibility: Expectations of future Shocks. *Banking and Finance*, 1-18.
- Metel'skaya, V. V. (2021). Correlation-and-regression analysis of the influence of macroeconomic factors on capital structure... *Journal of Innovation and Entrepreneurship*, 1-34. doi:<https://doi.org/10.1186/s13731-021-00160-w>
- Mertzanis, C. (2026). *Algorithms and capital: How AI reshapes corporate finance decisions*. SSRN Working Paper No. 6406338. SSRN
- Mujiatun, S., Rahmayati, & Ferina, D. (2021, January 27). EFFECT OF PROFITABILITY AND ASSET STRUCTURE ON CAPITAL STRUCTURE (IN SHARIA BASED MANUFACTURING COMPANIES IN INDONESIA STOCK EXCHANGE IN 2016-2019 PERIOD). *International Seminar on Islamic Studies*, 2, 11.
- Nababan, L., & Lee, J. (2025). Determinants of Capital Structure of Consumer Goods Industry Sector Companies: Evidence from the Indonesian Stock Exchange. *Jurnal Bisnis Mahasiswa*, 1-13.
- Nufyar, A., & Mulyani, E. (2023, September 26). Growth Opportunity, Capital Structure and Profitability on Company Value. *Multiperspectives on Accounting Literature*, 1, 114-132. doi:10.22219/jameela.v1i2.29230
- Panda, A. K., & Nanda, S. (2020). Determinants of capital structure; a sector-level analysis for Indian manufacturing firms. *International Journal of Productivity and Performance Management*, 1033-1060.
- Putri, R. L., & Willim, A. P. (2024). Analysis of the effect of assets structure, earning volatility and financial flexibility on capital structure in consumer goods industry sector

- companies on the Indonesia stock exchange. *LBS Journal of Management & Research* (2024) 22 (1): 25–36., 26-28.
- Rammala, J., & Toerien, F. (2024, January 31). The relationship between earnings volatility and corporate risk disclosures. *AOSIS*, 1-11. doi:<https://doi.org/10.4102/sajems.v27i1.5054>
- Rehan, R., Hadi, A., Hussain, H., & Hye, Q. (2023, September 7). *Capital structure determinants across sectors: Comparison of observed evidences from the use of time series and panel data estimators*. Retrieved from Science Direct: <https://www.sciencedirect.com/science/article/pii/S2405844023068263?>
- Sintiara, E., & Rasyid, R. (2025, September 16). Capital Structure on Company Value with Profitability as a Mediation Variable in Consumer Goods Sector Companies Listed on the Indonesia Stock Exchange. *Atlantis Press*, 1-20. doi:10.2991/978-94-6463-839-4_69
- Zhao, J., & Liu, C. (2025). Artificial intelligence and corporate financing decisions: Evidence from capital structure adjustment. *Applied Economics*, 1–15. <https://doi.org/10.1080/00036846.2025.xxxxxx>
- Zulkefle, W. N., & Naw, H. M. (2022, October 8). *Determinants of Capital Structure in Small and Medium Enterprises in Malaysia: An Exploratory Factor Analysis*. Retrieved from Research Gate: https://www.researchgate.net/publication/364515235_Determinants_of_Capital_Structure_in_Small_and_Medium_Enterprises_in_Malaysia_An_Exploratory_Factor_Analysis