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Effects of Asset Structure, Sales Growth, and Company Size on Debt Policy in Indonesia's Food and Beverage Subsector (2021–2025)

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Abstract

This study aims to examine the effect of asset structure, sales growth, and company size on debt policy in the Food and Beverage subsector listed on the Indonesia Stock Exchange (IDX) for the 2021–2025 period. The research uses a quantitative approach with secondary data. The population consists of 100 companies, and purposive sampling yielded 41 sample companies with 205 observations. The data were analyzed using descriptive statistics, classical assumption tests, multiple linear regression, and hypothesis testing with SPSS version 26. The results show that asset structure has a negative and significant effect on debt policy, while sales growth and company size have positive and significant effects. Simultaneously, the three independent variables significantly affect debt policy.

Keywords: *Asset Structure; Sales Growth; Company Size; Debt Policy*

I. INTRODUCTION

Indonesia's continually growing economy has intensified business competition. This condition requires companies to adapt and to secure adequate funding to support their operations and business development. In this regard, financial management plays an important role in determining funding sources, whether internal or external to the company. When internal funds are insufficient, companies may use external financing in the form of debt as an alternative to meet their needs (Liandi & Putri, 2023; Nurkholik & Khasanah, 2022).

Debt policy is management's decision on the extent to which debt is used as a source of corporate financing. Appropriate use of debt can support operations and business development, whereas excessive use can increase the company's financial burden and risk (Nurjanah & Purnama, 2021). In this study, debt policy is measured by the Debt to Equity Ratio (DER), which compares total debt with total equity and indicates how heavily a company depends on debt financing (Ariningrum & Junia, 2023).

This study focuses on companies in the Food and Beverage subsector listed on the Indonesia Stock Exchange (IDX) because their products meet the public's consumption needs, so the subsector has relatively large market prospects. This encourages companies to keep expanding their businesses while adjusting their funding strategies (Wisnugroho et al., 2023).

During 2021–2025, the Food and Beverage subsector faced various dynamics, ranging from distribution and supply chain disruptions during the COVID-19 pandemic to industrial recovery and rising raw material prices. Distribution disruptions during the pandemic affected the smoothness of production and operations (Rahayu & Sukmana, 2022). After the pandemic, industrial activity began to recover as economic conditions improved (Santi, 2021). However, the subsequent increases in raw material and staple prices may raise production costs and push companies to seek additional funding to sustain their operations (Sorongan, 2025). These conditions are reflected in the fluctuating average DER over the research period, as shown in Fig. 1.

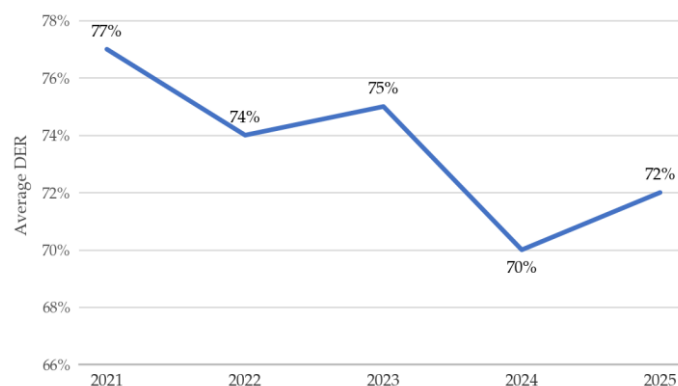


Fig. 1. Average Debt to Equity Ratio of the Food and Beverage Subsector, 2021–2025

Source: www.idx.co.id (data processed, 2026)

As shown in Fig. 1, the average DER of Food and Beverage subsector companies listed on the IDX fluctuated from year to year during 2021–2025. In 2021, the average DER was 77%, and it fell to 74% in 2022. This decline suggests that the industry was recovering after the pandemic, so that companies began to reduce their reliance on debt to finance operations. In 2023, the DER rose again to 75%, indicating greater use of debt to support working capital needs, production capacity expansion, market expansion, and business development.

Subsequently, the average DER fell to 70% in 2024, suggesting that companies were trying to improve operational efficiency and adjust their funding structures to be more stable. In 2025, the DER rose again to 72%, which may have been influenced by higher raw material prices and production costs that required additional funding to sustain operations.

Overall, the fluctuation of the DER during 2021–2025 shows that debt policy in the Food and Beverage subsector has changed under the influence of various economic and operational conditions. In setting their debt policy, companies therefore need to consider internal factors such as asset structure, sales growth, and company size. This provides an important basis for examining the effect of these three factors on debt policy in Food and Beverage subsector companies listed on the IDX.

Based on the background above, this study addresses the following research questions: (1) Does asset structure affect debt policy in the Food and Beverage subsector listed on the IDX for 2021–2025? (2) Does sales growth affect debt policy? (3) Does company size affect debt policy? (4) Do asset structure, sales growth, and company size simultaneously affect debt policy? Accordingly, this study aims to examine and analyze the partial and simultaneous effects of asset structure, sales growth, and company size on debt policy in the Food and Beverage subsector listed on the IDX for 2021–2025.

A. Literature Review

Agency theory. Agency theory explains the relationship between shareholders as principals and management as agents in managing the company. Differences in interests and information asymmetry between the two parties can give rise to agency conflicts (Jensen & Meckling, 1976).

Trade-off theory. Trade-off theory explains that companies determine their use of debt by weighing the benefits of debt against its costs. The benefit of debt is the tax saving (tax shield), whereas its costs include financial risk and bankruptcy costs (Myers, 1984).

Debt policy. According to Sartono (2015, p. 218), debt comprises all of a company's obligations to other parties that remain unsettled, whether arising from the use of its own capital or from creditor loans. Funding or financing decisions affect the company's capital structure, and funding sources may come from inside or outside the company.

Asset structure. Assets are economic resources or wealth owned by a company and used to support the achievement of its objectives, and they are expected to provide benefits in the future. In companies with a larger proportion of long-term assets, asset structure strongly influences funding decisions, because long-term assets can be used as collateral, making it easier for the company to obtain loans (Hermawan et al., 2016, p. 16).

Sales growth. The growth ratio is used to assess a company's ability to maintain its position in the industry and to keep pace with economic development. A company's growth rate reflects its ability to sustain profits in future opportunities. This ratio is generally measured through several indicators, such as sales growth. The growth ratio thus shows the company's ability to survive and grow amid changes in economic conditions and in its business sector (Kasmir, 2019, p. 116).

Company size. Company size indicates how large or small a company is and can be measured by total revenue, total assets, and market capitalization. The larger the company, the greater the likelihood that it uses borrowed capital (Halim, 2007, p. 93).

B. Conceptual Framework and Hypotheses

In the conceptual framework in Fig. 2, three independent variables are assumed to influence debt policy: asset structure, sales growth, and company size. Solid lines indicate partial effects, whereas the dashed line indicates the simultaneous effect.

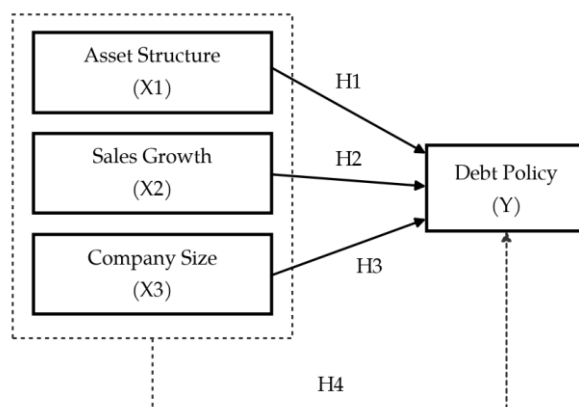


Fig. 2. Conceptual Framework

Based on this framework, the hypotheses of this study are as follows:

H₁: Asset structure affects debt policy in the Food and Beverage subsector listed on the IDX for 2021–2025.

H₂: Sales growth affects debt policy in the Food and Beverage subsector listed on the IDX for 2021–2025.

H₃: Company size affects debt policy in the Food and Beverage subsector listed on the IDX for 2021–2025.

H₄: Asset structure, sales growth, and company size simultaneously affect debt policy in the Food and Beverage subsector listed on the IDX for 2021–2025.

II. METHOD

This study uses a quantitative approach, with numerical data analyzed statistically to test the hypotheses objectively. The data are secondary data obtained from the financial statements of food and beverage subsector companies listed on the Indonesia Stock Exchange (IDX) for 2021–2025. The study aims to analyze the effect of asset structure, sales growth, and company size on debt policy. The data were analyzed using descriptive statistics, classical assumption tests, multiple linear regression, and hypothesis testing with SPSS version 26.

A. Population and Sample

The population of this study comprises all food and beverage subsector companies listed on the IDX during 2021–2025. According to IDX data, 100 companies belong to the population, and purposive sampling yielded 41 companies that met the criteria, giving 205 observations.

III. RESULTS AND DISCUSSION

A. Classical Assumption Tests

Normality test. The results of the one-sample Kolmogorov-Smirnov test are presented in Table I.

TABLE I. NORMALITY TEST: ONE-SAMPLE KOLMOGOROV-SMIRNOV TEST

Test		Unstandardized Residual
N		205
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.15455998
Most Extreme Differences	Absolute	.043
	Positive	.043
	Negative	-.033
Test Statistic		.043
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on the normality test results, the Asymp. Sig. value is 0.200 > 0.05, so it can be concluded that the research data are normally distributed.

Multicollinearity test. The results are presented in Table II.

TABLE II. MULTICOLLINEARITY TEST: COEFFICIENTS^a

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.767	.193	—	-3.979	.000	—	—
Asset Structure	-1.300	.046	-1.052	-28.534	.000	.433	2.309
Sales Growth	.181	.043	.155	4.199	.000	.434	2.303
Company Size	.065	.007	.242	9.864	.000	.978	1.022

a. Dependent Variable: Debt Policy

Based on the multicollinearity test results, all independent variables have tolerance values > 0.10 and VIF values < 10. It can therefore be concluded that the regression model shows no symptoms of multicollinearity and is suitable for further analysis.

Heteroscedasticity test. The scatterplot of the regression residuals is shown in Fig. 3.

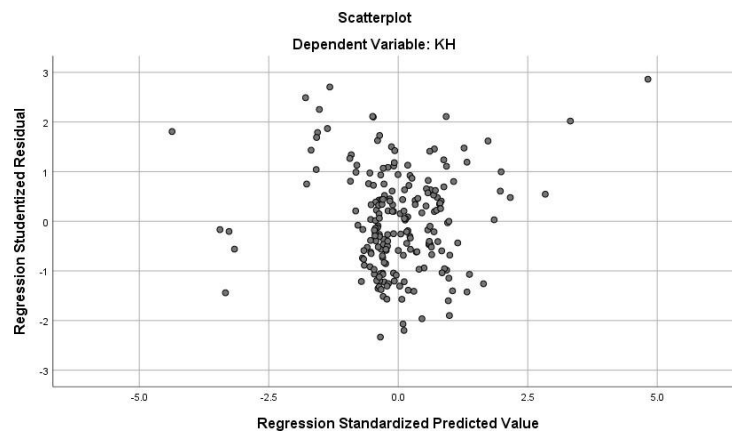


Fig. 3. Heteroscedasticity Test: Scatterplot of Regression Residuals

Based on the scatterplot, the residual points are randomly scattered around zero and form no particular pattern. This indicates that the residual variance is relatively constant, so the regression model does not suffer from heteroscedasticity. Thus, the homoscedasticity assumption is met and the model is suitable for further analysis.

Autocorrelation test. The Breusch-Godfrey (LM) test results are presented in Table III.

TABLE III. AUTOCORRELATION TEST: BREUSCH-GODFREY (LM) TEST, COEFFICIENTS^a

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.015	.160	—	.092	.927
Asset Structure	-.062	.038	-.146	-1.624	.106
Sales Growth	.090	.037	.223	2.426	.016
Company Size	.000	.005	-.002	-.041	.968
LAGS(RES_16,1)	.583	.071	.584	8.205	.000
LAGS(RES_16,2)	.016	.070	.016	.226	.821

a. Dependent Variable: Unstandardized Residual

Based on the Breusch-Godfrey (LM) test, the significance value of LAGS(RES_16,2) is 0.821 > 0.05. This result indicates that there is no autocorrelation in the regression model. Thus, the autocorrelation assumption is met and the regression model is suitable for further analysis.

B. Hypothesis Testing Results

Multiple linear regression analysis. The regression results are presented in Table IV, and the resulting multiple linear regression equation is as follows:

TABLE IV. MULTIPLE LINEAR REGRESSION ANALYSIS: COEFFICIENTS^A

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>			<i>Tolerance</i>	<i>VIF</i>
(Constant)	-.767	.193	—	-3.979	.000	—	—
Asset Structure	-1.300	.046	-1.052	-28.534	.000	.433	2.309
Sales Growth	.181	.043	.155	4.199	.000	.434	2.303
Company Size	.065	.007	.242	9.864	.000	.978	1.022

a. Dependent Variable: Debt Policy

$$Y = -0.767 - 1.300X_1 + 0.181X_2 + 0.065X_3$$

where Y = debt policy, X_1 = asset structure, X_2 = sales growth, and X_3 = company size.

t-test. The partial test results are presented in Table V.

TABLE V. PARTIAL TEST (T-TEST): COEFFICIENTS^A

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
(Constant)	-.767	.193	—	-3.979	.000
Asset Structure	-1.300	.046	-1.052	-28.534	.000
Sales Growth	.181	.043	.155	4.199	.000
Company Size	.065	.007	.242	9.864	.000

a. Dependent Variable: Debt Policy

Based on the *t-test* results, it can be concluded that asset structure, sales growth, and company size have a significant effect on debt policy. This is shown by the significance values of all three variables, each of which is $0.000 < 0.05$. Thus, all independent variables partially have a significant effect on debt policy.

F-test. The simultaneous test results are presented in Table VI.

TABLE VI. SIMULTANEOUS TEST (F-TEST): ANOVA^A

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	36.327	3	12.109	499.436	.000 ^b
Residual	4.873	201	.024		
Total	41.200	204			

a. Dependent Variable: Debt Policy

b. Predictors: (Constant), Company Size, Sales Growth, Asset Structure

Based on the F-test results, the calculated F value is 499.436 with a significance value of $0.000 < 0.05$. This indicates that asset structure, sales growth, and company size simultaneously have a significant effect on debt policy. The regression model is therefore considered suitable for explaining the relationship between the independent variables and debt policy.

Coefficient of determination. The results are presented in Table VII.

TABLE VII. COEFFICIENT OF DETERMINATION: MODEL SUMMARY^B

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.939 ^a	.882	.880	.15571	.895

a. Predictors: (Constant), Company Size, Sales Growth, Asset Structure

b. Dependent Variable: Debt Policy

Based on the coefficient of determination test, the Adjusted R Square value is 0.880, or 88%. This indicates that asset structure, sales growth, and company size explain 88% of the variation in debt policy, while the remaining 12% is explained by other factors outside the research model. The regression model therefore has very good explanatory power regarding debt policy.

C. Discussion

Effect of asset structure on debt policy. Based on the partial test (t-test), asset structure has a t value of -28.534 with a significance of $0.000 < 0.05$. This shows that asset structure has a negative and significant effect on debt policy, so the hypothesis is accepted. That is, the higher the proportion of fixed assets a company owns, the lower its use of debt. This suggests that companies with large fixed assets tend to have more adequate internal resources to finance their operations, so their dependence on debt financing is lower.

Effect of sales growth on debt policy. The results show that sales growth has a positive and significant effect on debt policy, indicated by a t value of 4.199 with a significance of $0.000 < 0.05$. That is, the higher the sales growth, the greater the company's tendency to use debt. This is because increased sales require additional capital to support the company's operations and expansion. Thus, the hypothesis is accepted.

Effect of company size on debt policy. The results show that company size has a positive and significant effect on debt policy, with a t value of 9.864 and a significance of $0.000 < 0.05$. The larger the company, the greater its tendency to use debt. This is because large companies have larger assets, relatively stable financial conditions, better reputations, and easier access to external funding sources. Thus, the hypothesis is accepted.

Simultaneous effect of asset structure, sales growth, and company size on debt policy. The simultaneous test shows that asset structure, sales growth, and company size jointly have a significant effect on debt policy, as evidenced by an F value of 499.436 and a significance of $0.000 < 0.05$. Thus, the hypothesis is accepted. This indicates that a company's debt policy is simultaneously influenced by asset structure, sales growth, and company size.

IV. CONCLUSIONS

Based on the research problems, the data analysis, and the discussion of the effects of asset structure, sales growth, and company size on debt policy in the Food and Beverage subsector listed on the Indonesia Stock Exchange for 2021–2025, the following conclusions can be drawn: (1) asset structure has a negative effect on debt policy; (2) sales growth has a positive effect on debt policy; (3) company size has a positive effect on debt policy; and (4) asset structure, sales growth, and company size simultaneously affect debt policy.

Future researchers are advised to replace or add other independent variables that may influence debt policy, such as liquidity and business risk. In addition, future studies may enlarge the sample, use different sectors, and extend the research period to more recent years in order to obtain more comprehensive results on the factors affecting debt policy.

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