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Effects of Free Cash Flow, Current Ratio, ROA, and DER on Dividend Policy: Evidence from Indonesian Food and Beverage Companies

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Abstract

Dividend policy signals a firm's financial health and shapes investor interest, yet not all listed firms pay dividends consistently. This study examines the effects of free cash flow, current ratio, return on assets (ROA), and debt to equity ratio (DER) on the dividend policy of food and beverage subsector companies listed on the Indonesia Stock Exchange (IDX) during 2019–2023. From a population of 57 companies, 21 were selected through purposive sampling based on predetermined criteria. Quantitative secondary data were obtained from annual financial statements and analyzed using descriptive statistics, classical assumption tests, multiple linear regression, the t-test, the F-test, and the coefficient of determination (R^2) in SPSS 22. The results show that free cash flow and the current ratio have a positive effect on dividend policy, ROA has no effect, and DER has a negative effect. Simultaneously, the four variables significantly affect dividend policy. These findings suggest that cash availability and liquidity support dividend payments, whereas leverage constrains them.

Keywords : *Dividend Policy; Free Cash Flow; Current Ratio; Return on Assets; Debt to Equity Ratio*

I. INTRODUCTION

The capital market is an effective means for companies to raise funds. Investors commit capital in the expectation of returns in the form of dividends and capital gains (Trisna & Gayatri, 2019). Dividends are the portion of net income

distributed to shareholders, whereas a capital gain is the positive difference between the purchase price and the selling price of a share (Prastya & Jalil, 2020). Dividend policy is an important matter because it helps align the interests of the company and its shareholders and influences investor interest (Susanto & Trianda, 2023). The amount of dividends paid is reflected in the *dividend payout ratio* (DPR), the percentage of earnings distributed to shareholders as cash dividends; the higher the DPR, the larger the share of earnings allocated to shareholders (Laurensa & Widhiastuti, 2022). In practice, however, not all companies listed on the IDX pay dividends consistently. Some retain earnings to support growth and business expansion. The food and beverage subsector is the focus of this study because of its significant economic impact and its continuing appeal to capital market participants as an investment choice.

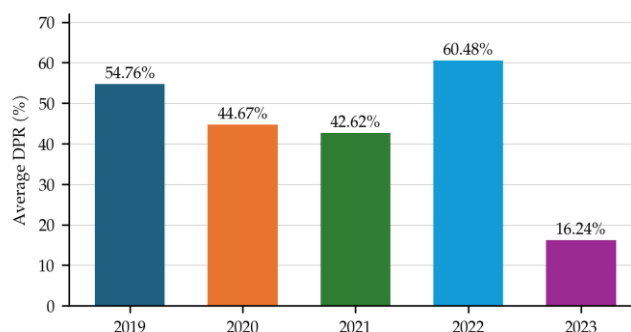


Fig. 1. Average dividend payout ratio of food and beverage companies, 2019–2023. Source: www.idx.co.id (processed data, 2024).

Fig. 1 presents the average DPR of food and beverage companies that consistently paid dividends during 2019–2023. The average DPR over the period was 43.81%, indicating that, on average, about 44% of net income was distributed to shareholders each year. The DPR reached 54.76% in 2019 but fell to 44.67% in 2020, as the early impact of the COVID-19 pandemic depressed corporate earnings. The decline continued in 2021 (42.62%), indicating ongoing adaptation to unstable market conditions. A significant recovery followed in 2022, when the DPR rose to 60.48% as financial performance improved. In 2023, however, the DPR dropped sharply to 16.24%, probably because of lower net income or a shift in corporate strategy toward reinvestment. These fluctuations show that dividend policy is shaped by firms' financial conditions and strategies.

Several factors are suspected to influence dividend policy. First, adequate *free cash flow* (FCF) reflects a firm's ability to pay dividends consistently after meeting its investment and operating needs (Soeiswanto et al., 2024). Second, a high level of liquidity, measured by the *current ratio* (CR), increases the likelihood that a firm can pay dividends (Ramadhanty & Indrati, 2024). Third, *return on assets* (ROA) describes a firm's ability to generate profit from its assets, and a high ROA may increase dividend payments (Sari & Berliani, 2024). Fourth, a high *debt to equity ratio* (DER) may reduce a firm's ability to pay dividends because of the growing burden of obligations (Sari & Berliani, 2024). Accordingly, this study examines the effects of FCF, CR, ROA, and DER on the dividend policy of food and beverage companies listed on the IDX during 2019–2023.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. Signalling Theory

According to Spence (1973), dividend payments serve as a signal to investors. An increase in dividends indicates good prospects for the firm (a positive signal), whereas a dividend cut is a negative signal because it is perceived as a decline in prospects. Investors tend to prefer dividends over retained earnings (Aghnitama & Widyarti, 2023).

B. Agency Theory

Agency theory, proposed by Jensen and Meckling (1976), explains the relationship between owners (principals) and agents, in which the owners delegate authority to the agents to perform services and to maximize the utility available.

C. Dividend Policy

Dividend policy is a strategic decision on whether the earnings generated are distributed as dividends or retained to support future investment (Artha et al., 2024). In this study it is proxied by the DPR:

$$DPR = \text{Dividend per Share} / \text{Earnings per Share} \quad (1)$$

D. Free Cash Flow

Free cash flow, also known as free cash flow to equity, is the cash flow generated by a firm's operating activities after deducting capital expenditures and adjusting for changes in debt (Artha et al., 2024). It is measured as:

$$FCF = (\text{Operating Cash Flow} - \text{Capital Expenditure}) / \text{Total Assets} \quad (2)$$

Previous studies report that free cash flow has a positive and significant effect on dividend policy (Soeiswanto et al., 2024; Tjhoa, 2020; Wulandari et al., 2022). This indicates that a firm generates more than enough cash to finance its operations and still has surplus cash for various purposes, including dividend payments to shareholders. The greater the free cash flow available, the better the firm's financial health. Therefore: **H1: Free cash flow affects dividend policy.**

E. Current Ratio

The *current ratio* (CR) measures a firm's ability to use its current assets to pay short-term obligations (Sari & Berliani, 2024):

$$CR = \text{Current Assets} / \text{Current Liabilities} \quad (3)$$

Hariyanto et al. (2024), Sari and Berliani (2024), and Widyatama and Dewayanto (2023) found that the current ratio affects dividend policy. A higher CR indicates better cash flow and greater availability of funds for dividend payments. Therefore: **H2: The current ratio affects dividend policy.**

F. Return on Assets

Return on assets (ROA) is a financial ratio that measures a firm's ability to generate profit from all the assets it owns (Laurensa & Widhiastuti, 2022):

$$ROA = \text{Net Income after Tax} / \text{Total Assets} \quad (4)$$

A higher ROA shows that the firm uses its assets well to generate profit. As earnings increase, the firm can distribute larger dividends to shareholders. This is supported by Artha et al. (2024), Laurensa and Widhiastuti (2022), Sari and Berliani (2024), and Widyatama and Dewayanto (2023), who found that ROA affects dividend policy. Therefore: **H3: Return on assets affects dividend policy.**

G. Debt to Equity Ratio

The *debt to equity ratio* (DER) measures the proportion of debt in a firm's capital by dividing total debt by total equity (Sari & Berliani, 2024):

$$DER = \text{Total Debt} / \text{Total Equity} \quad (5)$$

The larger the DER, the greater the management's obligations relative to the firm's own capital, which implies a heavier burden toward creditors. A high ratio signals that the firm's equity is small relative to its debt, and as the burden of obligations rises, the ability to distribute dividends declines. Susanto and Trianda (2023), Fitri et al. (2022), and Sari and Berliani (2024) found that DER affects the dividend payout ratio. Therefore: **H4: The debt to equity ratio affects dividend policy.**

H. Conceptual Framework

Fig. 2 summarizes the relationships examined in this study. Taken together, the four independent variables are expected to influence dividend policy simultaneously. Therefore: **H5: Free cash flow, current ratio, ROA, and DER simultaneously affect dividend policy.**

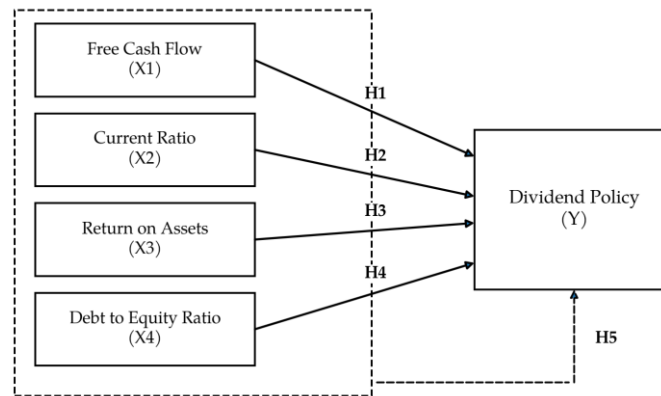


Fig. 2. Conceptual framework.

III. METHOD

This study uses quantitative data obtained from annual financial statements (secondary data). The population comprises 57 food and beverage subsector companies listed on the IDX. Using purposive sampling, 21 companies that met the predetermined criteria were selected for the 2019–2023 period, yielding 101 observations. The independent variables are free cash flow (X1), current ratio (X2), return on assets (X3), and debt to equity ratio (X4); the dependent variable is dividend policy (Y), proxied by the DPR. The variables are operationalized as shown in Eqs. (1)–(5).

Data were processed with SPSS 22 and analyzed using descriptive statistics; classical assumption tests (the Kolmogorov–Smirnov normality test, the multicollinearity test based on tolerance and the variance inflation factor [VIF], the Glejser heteroscedasticity test, and the Breusch–Godfrey Lagrange Multiplier autocorrelation test); multiple linear regression; the partial t-test; the simultaneous F-test; and the coefficient of determination (R^2). The regression model is formulated as:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad (6)$$

where Y is the dividend payout ratio (dividend policy), α is the constant, β_1 – β_4 are the regression coefficients, X_1 is free cash flow, X_2 is the current ratio, X_3 is return on assets, X_4 is the debt to equity ratio, and ε is the error term.

IV. RESULTS AND DISCUSSION

A. Descriptive Statistics

Descriptive statistics describe the data using the mean, standard deviation, minimum, and maximum values. Table I reports the results for the 101 observations. Dividend policy (Y) ranges from –1.70 to 0.73 with a mean of –0.4278 and a standard deviation of 0.38241. Free cash flow (X1) ranges from –0.50 to 1.84 (mean 0.0316; SD 0.45518), the current ratio (X2) from 0.10 to 3.27 (mean 1.3737; SD 0.75967), ROA (X3) from 0.00 to 1.53 (mean 0.1351; SD 0.26714), and DER (X4) from 0.10 to 2.64 (mean 0.8372; SD 0.62242).

TABLE I. DESCRIPTIVE STATISTICS

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Dividend policy (Y)	101	–1.70	0.73	–0.4278	0.38241
Free cash flow (X1)	101	–0.50	1.84	0.0316	0.45518
Current ratio (X2)	101	0.10	3.27	1.3737	0.75967
Return on assets (X3)	101	0.00	1.53	0.1351	0.26714
Debt to equity ratio (X4)	101	0.10	2.64	0.8372	0.62242
Valid N (listwise)	101				

Source: SPSS 22 output (2025).

B. Classical Assumption Tests

The Kolmogorov–Smirnov test is used for normality: residuals are considered normally distributed when the significance value exceeds 0.05 (Ghozali, 2018). The test yields an asymptotic significance (2-tailed) of 0.200, so the residuals of the regression model are normally distributed. The multicollinearity test examines whether independent variables are highly correlated (Ghozali, 2018). As shown in Table II, the tolerance of every variable is above 0.1 and every VIF is below 10, so no multicollinearity exists. The Glejser test regresses the absolute residuals on the

independent variables, with significance values above 0.05 indicating no heteroscedasticity; all four variables meet this criterion. Finally, the Breusch–Godfrey test gives a significance of 0.145 for the lagged residual (LAG), which exceeds 0.05, so there is no autocorrelation.

TABLE II. CLASSICAL ASSUMPTION TESTS

Variable	Tolerance	VIF	Glejser Sig.
Free cash flow (X1)	0.731	1.367	0.340
Current ratio (X2)	0.866	1.155	0.711
Return on assets (X3)	0.759	1.318	0.921
Debt to equity ratio (X4)	0.884	1.131	0.077
Kolmogorov–Smirnov, Asymp. Sig. (2-tailed)			0.200
Breusch–Godfrey, residual LAG Sig.			0.145

Source: SPSS 22 output (2025).

C. Multiple Linear Regression and Partial t-Test

Table III presents the regression results. The estimated model is:

$$\text{Dividend Policy} = -0.439 + 0.234\text{FCF} + 0.171\text{CR} - 0.126\text{ROA} - 0.255\text{DER} + \varepsilon \quad (7)$$

TABLE III. MULTIPLE LINEAR REGRESSION RESULTS

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	-0.439	0.091		-4.839	0.000
Free cash flow (X1)	0.234	0.084	0.278	2.774	0.007
Current ratio (X2)	0.171	0.046	0.339	3.677	0.000
Return on assets (X3)	-0.126	0.141	-0.088	-0.895	0.373
Debt to equity ratio (X4)	-0.255	0.056	-0.415	-4.544	0.000

Dependent variable: dividend policy. Source: SPSS 22 output (2025).

The t-test examines the extent to which each independent variable affects the dependent variable, holding the other variables constant (Ghozali, 2017). It is conducted at the 5% significance level: a hypothesis is accepted when $|t\text{-value}| > t\text{-table}$ (1.984) or the significance value is below $\alpha = 0.05$. Free cash flow has a t-value of 2.774 (> 1.984) and a significance of 0.007 (< 0.05), so it has a positive effect on dividend policy (H1 accepted). The current ratio has a t-value of 3.677 and a significance of 0.000, so it also has a positive effect (H2 accepted). ROA has a t-value of -0.895 ($|t| < 1.984$) and a significance of 0.373 (> 0.05), so it has no effect on dividend policy (H3 rejected). DER has a t-value of -4.544 ($|t| > 1.984$) and a significance of 0.000, so it has a negative effect (H4 accepted).

The positive effects of free cash flow and the current ratio are consistent with earlier findings (Soeiswanto et al., 2024; Tjhoa, 2020; Wulandari et al., 2022; Hariyanto et al., 2024; Widyatama & Dewayanto, 2023): firms with ample free cash and strong liquidity have more funds available for distribution. The negative effect of DER agrees with Susanto and Trianda (2023) and Sari and Berliani (2024): a heavier debt burden reduces the capacity to pay dividends. In contrast, the insignificant effect of ROA differs from the studies cited above for H3 (Laurensa & Widhiastuti, 2022; Artha et al., 2024; Sari & Berliani, 2024; Widyatama & Dewayanto, 2023).

D. Simultaneous F-Test and Coefficient of Determination

As shown in Table IV, the F-value is 9.925 with a significance of 0.000 (< 0.05), so H5 is accepted: free cash flow, the current ratio, ROA, and DER simultaneously have a significant effect on dividend policy. The adjusted R^2 is 0.263, meaning that 26.3% of the variation in dividend policy is explained by the four independent variables, while the remaining 73.7% is attributable to other factors not examined in this study.

TABLE IV. F-TEST (ANOVA) AND MODEL SUMMARY

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.278	4	1.070	9.925	0.000
Residual	10.346	96	0.108		
Total	14.624	100			

$R = 0.541$; $R^2 = 0.293$; Adjusted $R^2 = 0.263$; Std. error of the estimate = 0.32828

Dependent variable: dividend policy. Source: SPSS 22 output (2025).

V. CONCLUSIONS

This study examined the effects of free cash flow, current ratio, ROA, and DER on the dividend policy of food and beverage subsector companies listed on the IDX during 2019–2023. The results show that (1) free cash flow has a positive effect on dividend policy; (2) the current ratio has a positive effect on dividend policy; (3) ROA has no effect on dividend policy; (4) DER has a negative effect on dividend policy; and (5) the four variables simultaneously affect dividend policy. For managers and investors, these results indicate that cash availability and liquidity support dividend payments, whereas high leverage limits them. Because the four variables explain only 26.3% of the variation in dividend policy, future studies could add other determinants, such as firm size, growth, or ownership structure, or extend the observation period.

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