

The Impact of Return on Assets Mediated by Sales Growth on Dividend Policy in Food and Beverage Companies in Indonesia

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Abstract. *The purpose of this study is to examine the effect of the Return on Assets and Sales Growth variables and to test the mediating role of the Sales Growth variable in mediating the effect of Return on Assets on dividend policy in food and beverage companies in Indonesia. The research data consist of secondary data in the form of financial statements published by the Indonesia Stock Exchange for the 2020–2024 period, covering 14 companies with a total of 70 observations. The analytical model used is multiple linear regression to examine the direct effects and the Sobel Test to assess the mediating effect. The results indicate that the Return on Assets variable and the Sales Growth variable, both simultaneously and partially, have a significant effect on dividend policy in food and beverage companies in Indonesia. Furthermore, the Sales Growth variable is able to significantly mediate the effect of Return on Assets on dividend policy in food and beverage companies in Indonesia.*

Keywords: Dividend Policy, Return on Assets, Sales Growth, Mediation.

1. Introduction

Public investment decisions are strongly influenced by the dividend policies established by business entities, including food and beverage companies. One of the most closely observed aspects is dividend policy, as it plays a crucial role in attracting investors to purchase company shares (Bushee, 1998; Guest, 2008; Chen & Goergen, 2017; and Nuswandari & Jayadi, 2025). Therefore, establishing an appropriate dividend policy is considered highly important. Dividend policy is a corporate decision to determine the proportion of profits distributed as dividends compared to the portion retained by the corporation for reinvestment (Patarti & Almalita, 2022; Syakur, 2025). Thus, it is understandable that every corporation or listed company pays close attention to its dividend policy, as it represents a strategic tool for maintaining investment inflows and stabilizing share prices in the stock market.

One measure commonly used to assess dividend policy is the Dividend Payout Ratio, which reflects the proportion of earnings distributed in the form of cash dividends. The Dividend Payout Ratio indicates the extent to which profits are allocated to shareholders rather than retained within the company. Numerous variables influence the Dividend Payout Ratio, including Return on Assets, and this relationship can be mediated by sales performance (Akmal et al., 2026; Maulana, 2025; and Putri & Zulaicha, 2026). Return on Assets (ROA) can influence dividend policy as measured by the Dividend Payout Ratio (DPR), because ROA reflects the ability of total assets to generate profits (Singh & Chaudhary, 2024). Therefore, the determination of dividend policy is closely related to the existence and management of the company's assets, particularly productive assets that generate corporate earnings.

Accordingly, company assets must be managed effectively and efficiently to ensure they are fully optimized in generating profits, which subsequently determine the amount of dividends to be distributed at the end of the accounting year. Furthermore, ROA plays a significant role in determining and even increasing profitability, which is also influenced by sales growth. Sales growth refers to an increase in the sales ratio from one period to the next. As sales growth occurs, it naturally leads to higher profits, which in turn may affect the dividends distributed at the end of the period (Elina, 2021; Radella & Maulana, 2021). Thus, this analysis is highly relevant to provide an understanding of how dividend increases can be achieved and reflected in dividend policy, particularly in food and beverage companies in Indonesia.

2. Theoretical Review

Dividend policy refers to the determination of the percentage of profits distributed to shareholders (Sartono, 2020) and represents the cash flow decision regarding the amount to be paid to shareholders after receiving approval at the General Meeting of Shareholders (Husnan, 2012). Dividend policy is measured using the Dividend Payout Ratio (DPR), which is the percentage of earnings distributed to shareholders in the form of dividends (Widiasari & Widiawati, 2017), with the following formula:

$$DPR = \frac{\text{Dividend Per Share}}{\text{Earnings Per Share}} \times 100$$

Return on Assets (ROA) is a ratio that measures the ability of a company's assets to generate profits (Marpaung & Hadianito, 2009) and reflects the extent to which investments (assets) are capable of producing earnings (Inawati, 2019). It can be measured using the following formula:

$$ROA = \frac{\text{Net Profit After Tax}}{\text{Total Asset}} \times 100$$

Sales Growth (SG) is the percentage increase in sales from year to year (Harahap, 2016).

$$SG = \frac{\text{Sales } t_1 - \text{Sales } t_{1-1}}{\text{Sales } t_{1-1}} \times 100$$

Based on the theoretical review described above, the hypotheses can be formulated as follows:

H₁: Return on Assets and Sales Growth simultaneously affect Dividend Policy in food and beverage companies in Indonesia.

H₂: Return on Assets partially affects Dividend Policy in food and beverage companies in Indonesia.

H₃: Sales Growth partially affects Dividend Policy in food and beverage companies in Indonesia.

H₄: Sales Growth is able to mediate the effect of Return on Assets on Dividend Policy in food and beverage companies in Indonesia.

3. Method

This study uses secondary data from food and beverage companies listed on the Indonesia Stock Exchange for the 2020–2024 period. A total of 14 companies that met

the specified criteria were selected as the research sample. The data analysis technique employed is multiple linear regression, formulated as follows:

$$DPR = \alpha + \beta_1 ROA + \beta_2 SG + \varepsilon$$

Notation:

β_1 & β_2 : Variable coefficients, and ε : Error term (epsilon)

To examine the mediating effect of the variable, the **Sobel Test** is applied, formulated as follows:

$$Z = \frac{ab}{\sqrt{(b^2 SE a^2) + (a^2 SE b^2)}}$$

Notation:

- a : Regression coefficient of the independent variable on the mediating variable.
- b : Regression coefficient of the mediating variable on the dependent variable.
- Sea : Standard error of estimation of the effect of the independent variable on the mediating variable.
- SEb : Standard error of estimation of the effect of the mediating variable on the dependent variable.

Meanwhile, the hypothesis testing criteria are formulated as follows:

H₀₁: If $\beta_1 = \beta_2 = 0$ and the Prob F value > critical value, then accept the null hypothesis (H_0) and reject the alternative hypothesis (H_a). This means that Return on Assets and Sales Growth simultaneously have no effect on Dividend Policy in food and beverage companies in Indonesia.

H_{a1}: If $\beta_1 = \beta_2 \neq 0$ (β_i) and the Prob F value < critical value, then reject the null hypothesis (H_0) and accept the alternative hypothesis (H_a). This means that Return on Assets and Sales Growth simultaneously have a significant effect on Dividend Policy in food and beverage companies in Indonesia.

H₀₂: If $\beta_1 = 0$ and the Prob t value > critical value, then accept the null hypothesis (H_0) and reject the alternative hypothesis (H_a). This means that Return on Assets partially has no effect on Dividend Policy in food and beverage companies in Indonesia.

H_{a2}: If $\beta_1 \neq 0$ and the Prob t value < critical value, then reject the null hypothesis (H_0) and accept the alternative hypothesis (H_a). This means that Return on Assets partially has a significant effect on Dividend Policy in food and beverage companies in Indonesia.

H₀₃: If $\beta_2 = 0$ and the Prob t value > critical value, then accept the null hypothesis (H_0) and reject the alternative hypothesis (H_a). This means that Sales Growth partially has no effect on Dividend Policy in food and beverage companies in Indonesia.

H_{a3}: If $\beta_2 \neq 0$ and the Prob t value < critical value, then reject the null hypothesis (H_0) and accept the alternative hypothesis (H_a). This means that Sales Growth partially has a significant effect on Dividend Policy in food and beverage companies in Indonesia.

H₀₄: If the calculated Z value < 1.98, then accept the null hypothesis (H₀) and reject the alternative hypothesis (H_a). This means that the relationship is not significant and Return on Assets cannot be mediated by Sales Growth in affecting Dividend Policy in food and beverage companies in Indonesia.

H_{a4}: If the calculated Z value > 1.98, then reject the null hypothesis (H₀) and accept the alternative hypothesis (H_a). This means that Return on Assets can be significantly mediated by Sales Growth in influencing Dividend Policy in food and beverage companies in Indonesia.

3. Results and Discussions

The research data consist of 17 companies observed over a five-year period, resulting in a total of 70 observations. The descriptive statistics of the research data are presented in the following table:

Table 1. Descriptive Statistics.

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Dividend Policy	70	6.25	98.77	47.9598	22.70402
ROA	70	1.02	30.00	10.3688	6.40807
SG	70	-7.61	47.86	10.4720	9.98260

Furthermore, the results of the multiple linear regression analysis are presented in the following table:

Table 2. Multiple Linear Regression.

Model	β	Std. Error	t	Prob. t
(Constanta)	24.855	8.466	2.936	.005
ROA	1.600	.501	3.194	.003
SG	.716	.277	3.151	.002
F Statistics = 12.702				
Prob. f = .000				

- Dependent Variable: DPR

Based on the Multiple Linear Regression table, the regression equation can be formulated as follows:

$$\text{DPR} = 24.855 + 1.600\text{ROA} + 0.716\text{SG} + \varepsilon$$

Furthermore, the calculated Z value can be computed as follows:

$$\begin{aligned}
 Z &= \frac{1.600 \times 0.716}{\sqrt{(0.716^2 \times 0.501^2) + (1.600^2 \times 0.277^2)}} \\
 &= \frac{1.1456}{\sqrt{(0.512656 \times 0.251001) + (2.56 \times 0.076726)}} \\
 &= \frac{1.1456}{\sqrt{(0.1287) + (0.1964)}} \\
 &= \frac{1.1456}{\sqrt{0.3251}} \\
 &= \frac{1.1456}{0.5701754116059} = 2.009
 \end{aligned}$$

Based on the results of the linear regression and the calculated Z-test, the following hypothesis can be tested:

H_1 : $\beta_1 = 1.600$ and: $\beta_2 = 0.716$, meaning: $\beta_1 = \beta_2 \neq 0.000$, and the Prob f value is $0.000 < \text{the critical value}$ ($0.000 < 0.05$). Therefore, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. This means that Return on Assets and Sales Growth simultaneously have a significant effect on Dividend Policy in food and beverage companies in Indonesia.

H_2 : $\beta_1 = 1.600$, meaning $\beta_1 \neq 0.003$, and the Prob t value is $0.003 < \text{the critical value}$ ($0.003 < 0.05$). Therefore, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. This means that Return on Assets has a partial significant effect on Dividend Policy in food and beverage companies in Indonesia.

H_3 : $\beta_2 = 0.716$, meaning $\beta_2 \neq 0$. The t-prob value is $0.002 < \text{the critical value}$ ($0.002 < 0.05$), thus rejecting the null hypothesis (H_0) and accepting the alternative hypothesis (H_a). This means that Sales Growth has a partial significant effect on Dividend Policy in food and beverage companies in Indonesia.

H_4 : The calculated Z-value is 2.009, meaning $Z\text{-calculated} > 1.98$ ($2.009 > 1.98$), thus rejecting the null hypothesis (H_0) and accepting the alternative hypothesis (H_a). This means that Return on Assets can be mediated by Sales Growth, which has a significant effect on Dividend Policy in food and beverage companies in Indonesia.

4. Conclusion

Based on the research results and previous discussions, it can be concluded that Return on Assets and Sales Growth, both simultaneously and individually, significantly influence dividend policy in food and beverage companies in Indonesia. Furthermore, Sales Growth can mediate the effect of Return on Assets on dividend policy in Indonesia. Therefore, food and beverage companies should consider Return on Assets and Sales Growth when determining their dividend policy, as both variables have been shown to increase the Dividend Payout Ratio.

5. References

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