



**THE EFFECT OF TAX PLANNING AND COMPANY SIZE ON COMPANY
VALUE (EMPIRICAL STUDY OF MANUFACTURING COMPANIES IN THE
FOOD AND BEVERAGE SECTOR LISTED ON THE INDONESIA STOCK
EXCHANGE FOR THE PERIOD 2020–2024)**

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Abstract

This study aims to analyze the effect of tax planning and firm size on firm value in food and beverage sector manufacturing companies listed on the IDX for the 2020–2024 period. Firm value is measured using the Price Book Value (PBV) indicator. This study adopts a quantitative approach utilizing secondary data from 64 companies (320 observations) in the food and beverage sector over a five-year period. The results indicate that tax planning has no effect on firm value, whereas firm size has a positive and significant effect on firm value.

Keywords: Tax Planning, Firm Size, Firm Value



INTRODUCTION

Firm value reflects how the market evaluates a company's performance, prospects, and long-term sustainability, making it a central concern for both management and investors since it represents not only current financial conditions but also investor expectations regarding a company's ability to generate profit, maintain business stability, and manage future risk. Among the sectors listed on the Indonesia Stock Exchange (IDX), food and beverage manufacturing is particularly relevant for examining the determinants of firm value, as financial decisions and market responses in this sector do not always follow a consistent pattern.

Tax planning and firm size are two factors frequently examined for their influence on firm value, yet prior studies report inconsistent findings. Tarigan et al. (2024) and Anisran and Ma'wa (2023) found that tax management practices are viewed positively by the market as a form of operational efficiency, whereas Khairunnisa and Lubis (2023) found no significant effect of tax planning on stock market value. A similar polarization appears for firm size: Reyes and Syahputra (2025) and Putri et al. (2024) reported that larger total assets attract positive investor perception, while Hermawaty and Sudana (2023) found a negative effect, and Br Aritonang et al. (2025) found no significant effect at all. These contradictory results point to an empirical research gap that warrants further, more recent testing particularly within the food and beverage sector, which is known for relatively stable demand and resilience to macroeconomic fluctuations.

Building on this gap, this study aims to analyze the effect of tax planning and firm size on firm value in food and beverage manufacturing companies listed on the IDX during the 2020–2024 period. The study adopts a quantitative, associative-causal design using secondary data drawn from the annual financial reports of listed companies. A purposive sampling technique yielded a final sample of 64 companies observed over five years, producing 320 firm-year observations. Tax planning is measured through the Effective Tax Rate, firm size through the natural logarithm of total assets, and firm value through Price to Book Value (Abbas & Suparman, 2024). The collected panel data are analyzed using EViews-13 through descriptive statistics, classical assumption testing, and panel data regression, with model selection based on the Chow, Hausman, and Lagrange Multiplier tests (Gujarati & Porter, 2009).

LITERATURE REVIEW

Agency Theory

Agency theory describes the relationship between principals (owners) and agents (managers), in which owners delegate authority to managers to run the



company and make value-enhancing decisions. This relationship carries the risk of an agency problem, arising when managers do not always act in the best interest of shareholders due to divergent incentives (Jensen & Meckling, 1998). In the context of this study, tax planning and firm size are key variables that can be shaped by agency dynamics for instance, managers may pursue tax strategies that serve their own interests rather than shareholder value, a risk that sound governance mechanisms, such as independent commissioners, help mitigate (Inastri & Mimba, 2017; Reyes & Syahputra, 2025).

Signaling Theory

Signaling theory, introduced by Spence (1973), holds that corporate insiders possess more and faster information about the firm's actual condition than external investors, creating information asymmetry. To reduce this asymmetry, management is incentivized to release positive signals typically through financial disclosures, that the market can interpret favorably. In this study, both firm size and tax planning function as signals: consistent asset growth signals fundamental stability and lower default risk, whereas an aggressive tax planning stance, reflected in a low Effective Tax Rate, may be read either as efficient cash management or as a red flag for future compliance risk. Signaling theory therefore provides a useful lens for understanding how IDX investors interpret these financial signals when pricing a firm's shares.

Tax Planning

Tax planning refers to legal strategies used to minimize a firm's tax burden within the boundaries of prevailing tax regulations, thereby optimizing after-tax profit (Tarigan et al., 2024). Effective tax planning is commonly measured using the Effective Tax Rate (ETR):

$$ETR = \frac{\text{Total Tax Expense}}{\text{Profit before tax}}$$

A lower ETR indicates more effective tax management and, consequently, greater after-tax returns available for shareholders. Viewed through an agency lens, successful tax efficiency signals that management is acting in shareholders' interest, reducing potential agency conflict.

Firm Size

Firm size reflects the scale of a company's operations and is commonly proxied by the natural logarithm of total assets. Larger firms tend to benefit from economies of scale and greater, more stable access to internal and external financing, which strengthens investor confidence in their long-term prospects (Reyes & Syahputra, 2025; Hermawaty & Sudana, 2023). From an agency-theory perspective, larger firms' easier access to capital enables more profitable investment decisions (Inastri & Mimba, 2017;



Pramitha & Sudana, 2021), positioning firm size as both a financial and a confidence signal to the market.

Firm Value

Firm value represents the market's assessment of managerial success in running the company and generating shareholder wealth, commonly measured through Price to Book Value (PBV) (Tarigan et al., 2024). Higher firm value reflects effective management and stronger investor trust (Inastri & Mimba, 2017). Under agency theory, information asymmetry between managers and shareholders can distort managerial decisions and depress firm value (Jensen & Meckling, 1998), underscoring the importance of transparent communication and sound governance in sustaining firm value (Reyes & Syahputra, 2025).

Prior Research and Hypothesis Development

Empirical findings on the tax planning–firm value relationship remain mixed: Tarigan et al. (2024) and Anisran and Ma'wa (2023) found a positive effect, while Khairunnisa and Lubis (2023) found none. Similarly, findings on firm size are inconsistent positive in Reyes and Syahputra (2025) and Putri et al. (2024), negative in Hermawaty and Sudana (2023), and insignificant in Br Aritonang et al. (2025). These inconsistencies, which appear to vary by industry sub-sector, measurement indicator, and observation period, motivate the present study's hypotheses:

H1: Tax planning affects firm value.

H2: Firm size affects firm value.

RESEARCH METHOD

This study adopts a quantitative approach with an associative-causal design, aiming to examine the effect of tax planning and firm size on firm value in food and beverage sector manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period.

The data used are secondary data obtained from the audited annual financial reports of listed companies, sourced from the official IDX website and companies' official websites. The population comprises all food and beverage sector companies listed on the IDX during 2020–2024. Samples were selected using purposive sampling based on the following criteria: (1) the company is classified in the food and beverage sector and listed on the IDX during 2020–2024; (2) the company actively publishes annual and financial reports that are publicly accessible; and (3) the company discloses complete data on tax planning, firm size, and firm value. Applying these criteria to an initial population of 132 companies yielded a final sample of 64 companies observed over five years, producing 320 firm-year observations.



Three variables are used in this study. Tax planning (X1) is measured using the Effective Tax Rate (ETR), calculated as total tax expense divided by pre-tax income (Abbas & Suparman, 2024). Firm size (X2) is measured as the natural logarithm of total assets (Abbas & Suparman, 2024). Firm value (Y), the dependent variable, is measured using Price to Book Value (PBV), calculated as share price divided by book value per share (Abbas & Suparman, 2024). All three variables are measured on a ratio scale.

Data were analyzed using EViews-13 through panel data regression. The analytical procedure began with descriptive statistical analysis to summarize the characteristics of each variable, followed by a panel data model selection process comprising the Chow test (Common Effect vs. Fixed Effect), the Hausman test (Fixed Effect vs. Random Effect), and, where necessary, the Lagrange Multiplier test (Common Effect vs. Random Effect) (Amaliah et al., 2020). Classical assumption tests normality, multicollinearity, and heteroscedasticity were then conducted to ensure the validity of the regression model (Ghozali, 2018). The panel data regression model used in this study is specified as:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon_{it}$$

where Y denotes firm value, X1 denotes tax planning, X2 denotes firm size, i denotes the company, t denotes the time period, β_0 is the constant, β_1 – β_2 are the regression coefficients, and ε is the error term. Hypothesis testing was conducted using the t-test to assess the partial effect of each independent variable, the F-test to assess the simultaneous effect of all independent variables, and the coefficient of determination (R^2) to measure the extent to which the independent variables explain the dependent variable (Gujarati & Porter, 2009).

RESULTS AND DISCUSSION

Descriptive Statistics

The study analyzes 320 firm-year observations drawn from 64 food and beverage manufacturing companies listed on the IDX during 2020–2024. Descriptive statistics for the three research variables are presented in Table 3.

Table 1
Descriptive Statistics

	X1	X2	Y
Mean	1.620.540	2.516.131	1.175.871
Median	0.248943	2.687.135	1.230.043
Maximum	5.028.952	3.293.787	59589.94
Minimum	0.001971	1.377.343	7.27E-06
Std. Dev.	4.676.741	5.267.146	5.010.009

Source: EViews output (2026)



The wide gap between the mean and median for tax planning and firm value, together with their high standard deviations, indicates substantial data dispersion across sample firms, particularly for firm value, where PBV ranges from a near-zero minimum to an extreme maximum. Firm size, by contrast, shows a mean close to its median, suggesting a more centered and stable distribution across firms.

Panel Data Model Selection

Model selection followed three sequential tests: the Chow test, the Hausman test, and the Lagrange Multiplier (LM) test.

Table 2

Panel Data Model Selection Results

Panel Data Regression Model	Test	Results	Selected Model
Chow test	CEM vs FEM	0,0000<0,05	FEM
Hausman test	FEM vs REM	0,8108 > 0,05	REM
Lagrange multiplier test	CEM vs REM	0,0000<0,05	REM

Source: EViews output (2026)

Based on these results, the Random Effects Model (REM) was selected as the most appropriate estimation model, as it accommodates cross-sectional heterogeneity while allowing for random individual effects, producing efficient estimates of the relationships among variables.

Classical Assumption Tests

Since REM is estimated using Generalized Least Squares (GLS), classical assumption testing is not as strictly required as in Ordinary Least Squares (OLS) estimation (Gujarati & Porter, 2009); nonetheless, the tests were conducted to confirm model adequacy. The normality test (Jarque-Bera) produced a probability value of 0.065, exceeding the 0.05 threshold, indicating normally distributed residuals. The multicollinearity test showed a correlation coefficient of -0.052 between the two independent variables, well below the 0.80 threshold, indicating no multicollinearity problem. The heteroscedasticity test yielded a probability value of 0.289, exceeding 0.05, indicating no heteroscedasticity problem. Overall, the model satisfies the classical assumptions required for valid inference.

Panel Data Regression Results

The estimated regression equation is:

$$FV_Y = -3004.70333152 - 9.3510544288*ETR_X1 + 166.75316283*FS_X2 + [CX=R]$$



Table 3

Panel Data Regression and Hypothesis Test Results

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-3.004.703	2.028.040	-1.481.580	0.1394
ETR_X1	-9.351.054	6.346.916	-0.147332	0.8830
FS_X2	1.667.532	7.863.857	2.120.501	0.0347

Source: EViews output (2026)

Table 4

Model Fit Summary

Statistic	Value
F-statistic	2.283
Prob (F-statistic)	0.1036
R-squared	0.0142
Adjusted R-squared	0.0080

Source: EViews output (2026)

The partial test (t-test) shows that tax planning has an insignificant effect on firm value ($p = 0.883 > 0.05$); H1 is therefore rejected. Firm size, in contrast, has a positive and significant effect on firm value ($p = 0.035 < 0.05$, coefficient = 166.75); H2 is therefore accepted. The simultaneous test (F-test) indicates that tax planning and firm size do not jointly affect firm value ($p = 0.104 > 0.05$). The adjusted R^2 of 0.008 indicates that the two independent variables explain only 0.8% of the variation in firm value, with the remaining 99.2% attributable to factors outside the model, such as profitability, dividend policy, capital structure, or macroeconomic conditions. This low explanatory power is plausible given the presence of extreme outliers in firm value (e.g., PT Penta Valent Tbk's unusually high PBV in 2021) and the consumer-goods nature of the food and beverage sector, where stock prices tend to be driven more by market sentiment, sales volume, and brand equity than by tax efficiency or asset scale.

Discussion

Effect of Tax Planning on Firm Value. The insignificant effect of tax planning (ETR) on firm value suggests that, contrary to the premise of signaling theory, tax efficiency does not function as a credible positive signal for investors in this sector. Rather than interpreting a lower ETR as evidence of financial efficiency, investors appear to treat aggressive tax planning as an ambiguous or even risk-laden signal one that raises concerns about potential compliance penalties or reputational costs. This is compounded by an agency-theory interpretation: information asymmetry may lead the market to suspect that reported tax efficiency reflects managerial opportunism rather



than shareholder-value creation, leading investors to largely disregard ETR when pricing shares. This finding is consistent with Khairunnisa and Lubis (2023).

Effect of Firm Size on Firm Value. The positive and significant effect of firm size on firm value supports signaling theory: larger asset scale functions as a credible signal of operational maturity, business stability, and competitiveness, which the market rewards with higher investor demand and, consequently, higher share prices. From an agency-theory perspective, larger firms tend to operate under greater public and regulatory scrutiny, which encourages transparency and reduces information asymmetry, further reinforcing investor confidence. This result is consistent with Putri et al. (2024).

Synthesis

Overall, this study achieves one of its two stated objectives. The finding that firm size significantly and positively affects firm value confirms the second research objective and aligns with the theoretical expectation that larger, more transparent firms attract stronger investor confidence. However, the first objective establishing the effect of tax planning on firm value is not supported by the data, as tax planning shows no significant relationship with firm value in this sector during the observed period. This suggests that, within the Indonesian food and beverage industry, tax efficiency alone is an insufficient signal to move investor valuation, likely because market attention is directed more toward sales performance, brand strength, and near-term profitability than toward fiscal management indicators. Taken together, the low adjusted R^2 further indicates that firm value in this sector is shaped predominantly by factors beyond tax planning and firm size, pointing to a need for future research to incorporate additional explanatory variables such as profitability, dividend policy, or macroeconomic conditions.

CONCLUSION

This study set out to examine the effect of tax planning and firm size on firm value in food and beverage sector manufacturing companies listed on the Indonesia Stock Exchange during the 2020-2024 period. The findings show that tax planning, as measured by the Effective Tax Rate, has no significant effect on firm value, leading to the rejection of the first hypothesis. This suggests that investors in this sector do not treat the extent of a firm's tax efficiency as a meaningful signal when assessing its market value, likely because tax planning efforts are perceived as carrying uncertain risk such as potential administrative sanctions or suspicion of opportunistic managerial behavior rather than as a clear indicator of financial efficiency. In contrast, firm size, measured through the natural logarithm of total assets, is found to have a



positive and significant effect on firm value, confirming the second hypothesis. This result indicates that larger firms are perceived by the market as more stable, better governed, and subject to greater public scrutiny, which reduces information asymmetry between management and investors and, in turn, strengthens investor confidence and firm valuation.

Given that firm size plays a significant role in shaping firm value, company management is encouraged to manage asset growth in an efficient and transparent manner, since doing so helps limit agency conflict between management and shareholders and sustains the investor trust needed to support and enhance firm value over time. At the same time, because tax planning shows no meaningful influence on firm value within this sector and period, and because the two variables examined in this study jointly explain only a marginal proportion of the variation in firm value, future researchers are encouraged to broaden the model by incorporating additional variables that are more directly relevant to investor decision-making, such as profitability, capital structure, dividend policy, or corporate governance mechanisms, as doing so would allow the explanatory and theoretical contribution of agency and signaling perspectives to be tested more thoroughly. Future studies would likewise benefit from extending the observation period or broadening the industry scope beyond the food and beverage sector, as a richer and more varied dataset would strengthen the generalizability of the findings and provide a clearer picture of how these financial signals operate across different market conditions.

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