
**THE EFFECT OF TAX PLANNING, FIRM SIZE, AND CAPITAL STRUCTURE
ON FIRM VALUE (STUDY ON MANUFACTURING COMPANIES IN THE FOOD
AND BEVERAGE SUB-SECTOR LISTED ON THE INDONESIA STOCK
EXCHANGE FOR THE PERIOD 2019–2024)**



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Abstract

This study aims to analyze the effect of tax planning, firm size, and capital structure on firm value in food and beverage manufacturing companies listed on the Indonesia Stock Exchange during the 2019–2024 period. This research uses a quantitative method with descriptive and verificative approaches. The data used are secondary data obtained from company financial statements and analyzed using panel data regression with the assistance of EViews 13 software. The results show that tax planning, firm size, and capital structure affect firm value. This indicates that tax management, company assets, and funding policies are factors considered by investors in assessing a company. In addition, these three variables simultaneously influence firm value. This study is expected to serve as a consideration for companies in determining appropriate financial policies to increase firm value. Furthermore, this research is also expected to become a reference for investors.

Keywords: Company Value, Tax Planning, Capital Structure, Company Size

INTRODUCTION

In corporate finance studies, firm value serves as a critical indicator reflecting investors' assessment of a company's capacity to generate long-term economic value. It encapsulates market expectations regarding performance, risk, and growth prospects (Larasati Br Tarigan & Gani, 2024). Empirically, firm value is measured through various approaches, with market value proxied by share price being among the most widely adopted. This study employs Price to Book Value (PBV) as the primary indicator, given its ability to represent actual investor perception of corporate worth (Bahraini et al., 2021).

From a regulatory standpoint, the Indonesian government enacted the Law on Tax Regulation Harmonization (UU HPP) in 2021 alongside Ministerial Regulation PMK No. 15/2021, which adjusted corporate income tax rates and introduced fiscal incentives for selected industrial sectors. These regulations theoretically create opportunities for more efficient tax planning, which should translate into improved net income and, consequently, higher firm value. However, the effectiveness of such fiscal policies depends critically on how firms manage their tax strategies and how the market responds to those strategies.

The first empirical phenomenon is observable in the PBV ratios of food and beverage manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2024. Major issuers such as ICBP and MYOR consistently recorded PBV ratios exceeding four times book value, signaling strong market confidence in their growth prospects. In contrast, companies such as DLTA and SKLT posted PBV ratios below 1.5 times (BEI, 2024). This disparity between fundamental performance and market perception suggests that firm valuation extends beyond asset size or profitability, encompassing management strategy, operational risk, and market sentiment.

The second phenomenon concerns the implementation of the Tax Regulation Harmonization Law and PMK No. 15/2021. While a reduction in the Effective Tax Rate (ETR) theoretically increases net earnings and firm value, empirical data reveals a more nuanced relationship. Tarigan et al. (2024) found that tax planning can positively affect firm value, whereas Suwardi et al. (2024) demonstrated that overly aggressive tax strategies may erode investor confidence due to perceived reputational risks. This indicates that market responses to tax strategies are non-linear, and investors may respond negatively when corporate tax behavior is viewed as opaque or excessively risky.

The third phenomenon concerns the relationship between firm size and market valuation in large companies such as INDF and UNVR. Despite commanding substantial total assets, their PBV ratios did not consistently reflect high market valuations and in several periods remained stagnant or declined (Bahri et al., 2022; Husna et al., 2024). This suggests that firm size alone does not guarantee enhanced market value unless accompanied by strong asset utilization efficiency and profitability. In certain cases, larger firms face operational inefficiencies stemming from complex internal bureaucratic structures.

The fourth phenomenon relates to capital structure. Companies within the food and beverage sub-sector generally maintained moderate leverage ratios ranging from 0.5 to 0.8. However, the directional impact of leverage on firm value remains inconsistent across studies. Bahraini et al. (2021) argued that moderate leverage generates tax shield benefits that enhance firm value, while Giawa et al. (2024) found that excessive debt levels heighten bankruptcy risk and undermine investor confidence. This divergence underscores the

sensitivity of capital structure effects to industry context and prevailing macroeconomic conditions.

Taken together, these four phenomena reveal the complex dynamics shaping investor assessments of corporate value. The observed inconsistencies in how tax planning, firm size, and capital structure influence firm value across different studies point to a significant research gap that warrants further empirical investigation. Theoretically, Signaling Theory provides a relevant framework: managerial decisions related to tax planning, firm size, and capital structure function as signals to investors regarding future performance and prospects, where positive signals from efficient financial policies strengthen market confidence and are reflected through rising share prices and improved PBV ratios (Periode, 2024).

Given the empirical inconsistencies and the research gap identified across prior studies, this research aims to empirically examine the influence of tax planning, firm size, and capital structure on firm value measured through PBV as a market value proxy among food and beverage manufacturing companies listed on the Indonesia Stock Exchange for the period 2019–2024. The findings are expected to contribute more comprehensive and updated empirical evidence to the existing body of literature, particularly within the Indonesian manufacturing context.

REVIEW OF LITERATURE

Signaling Theory

This study is grounded in Signaling Theory (Spence, 1973), which posits that information conveyed by management through financial reports, tax policies, and financing decisions serves as signals to investors regarding the firm's condition and future prospects. According to Bahri et al. (2022), firm value increases when a company successfully transmits positive signals in the form of financial efficiency, earnings stability, and optimal capital structure management. In this context, tax planning decisions, firm size, and capital structure collectively function as market-interpreted signals where legitimate tax efficiency, large yet productive assets, and controlled debt proportions strengthen investor confidence and are reflected in rising share prices, while negative signals such as high tax burdens or excessive leverage tend to diminish market valuation.

Firm Value

Firm value represents investors' perception of a company's success in managing its resources and generating future earnings, and is commonly associated with share price performance, whereby higher share prices correspond to greater firm value (Tarigan et al., 2024). According to Giawa et al. (2024), firm value reflects shareholders' level of prosperity and serves as a primary indicator of managerial effectiveness. This study employs the Price to Book Value (PBV) ratio as its measurement instrument, as PBV captures the extent to which the market appreciates a company's net worth relative to its invested capital (Brigham & Houston, 2018). A higher PBV signals stronger investor confidence in the company's long-term prospects, and is particularly relevant for the manufacturing sector (Larasati Br Tarigan & Gani, 2024). PBV is calculated as the ratio of share price to book value per share, and serves as a reliable indicator of whether a stock is overvalued or undervalued from a shareholder's perspective.

Tax Planning

Tax planning refers to a legal corporate strategy aimed at minimizing tax obligations without violating applicable tax regulations, and constitutes the initial step in tax management through the deliberate selection of tax-saving measures within the boundaries of prevailing rules (Larasati Br Tarigan & Gani, 2024). In the context of capital markets, an efficient tax strategy functions as a positive signal to investors, demonstrating management's capability in effectively managing fiscal burdens. This study measures tax planning using the Effective Tax Rate (ETR), which represents the proportion of income tax expense relative to pre-tax profit (Tarigan et al., 2024; Novi Endri Astuti, 2021). A lower ETR, within legally acceptable bounds, indicates greater tax efficiency, and Tarigan et al. (2024) have empirically confirmed that ETR significantly influences the firm value of food and beverage sub-sector companies listed on the Indonesia Stock Exchange.

Firm Size

Firm size reflects the scale of a company's business operations and is commonly measured through total assets or total sales, with larger firms generally demonstrating a greater capacity to access external financing, manage risk, and attract investor interest (Bahri et al., 2022). However, Loppies and Wenno (2024) found that firm size does not invariably produce a positive effect on firm value, as larger companies that fail to utilize their assets efficiently may experience declining market valuations due to low operational effectiveness. To quantify firm size, this study employs the natural logarithm of total assets denoted as Firm Size = $\ln(\text{Total Assets})$ as this measure more accurately reflects a company's economic scale while remaining stable and unaffected by short-term fluctuations (Loppies & Wenno, 2024).

Capital Structure

Capital structure describes the composition of a firm's financing sources, balancing debt and equity to fund its operational activities, whereby leverage indicates the extent to which borrowed funds are utilized (Bahri et al., 2022). Husna et al. (2024) and Giawa et al. (2024) found that the relationship between capital structure and firm value varies depending on the firm's risk profile and profitability. According to Bidaya et al. (2023), excessively high debt proportions amplify financial risk, while moderate debt levels can generate tax shield benefits that strengthen firm value. This study measures capital structure using the Debt to Asset Ratio (DAR), calculated as total debt divided by total assets, which effectively captures the degree to which a company's assets are debt-financed; a moderate DAR reflects a healthy capital structure, whereas a high DAR signals overreliance on external borrowing (Bidaya et al., 2023).

RESEARCH METHOD

This study adopts a quantitative research approach, grounded in positivist philosophy, which aims to test hypotheses using numerical data subjected to statistical analysis. As explained by Sugiyono (2023, pp. 14–18), quantitative research is conducted on a defined population or sample using structured instruments, producing findings that are statistically generalizable. This approach is well-suited for examining the influence of tax planning, firm size, and capital structure on firm value. The study further applies a deductive theoretical approach, in which established general theories serve as the foundation for formulating testable hypotheses derived from empirical data (Sugiyono, 2023, pp. 39–41). The research strategy employed is explanatory (causal-comparative) research, which seeks to identify

cause-and-effect relationships between variables and assess the influence of independent variables on the dependent variable (Sugiyono, 2023, pp. 21–23) — specifically, how tax planning, firm size, and capital structure affect the market value of food and beverage manufacturing companies.

This study is conducted in a non-contrived setting, meaning the researcher imposes no treatment or intervention on the research objects; instead, data are used in their natural form as published in financial reports on the Indonesia Stock Exchange (Sugiyono, 2023, p. 112). The unit of analysis consists of manufacturing companies within the food and beverage sub-sector listed on the Indonesia Stock Exchange (IDX), which serve as the primary data collection targets in accordance with quantitative research conventions (Sugiyono, 2023, p. 125). Data collection was carried out through documentation, encompassing annual reports, financial statements, and issuer performance summaries published by the IDX, with no direct researcher involvement in the research objects.

This study utilizes panel data, combining cross-sectional and time-series dimensions, covering food and beverage sub-sector manufacturing companies listed on the IDX over a six-year observation period from 2019 to 2024. According to Sugiyono (2023, p. 147), panel data provides a more comprehensive representation of the phenomena under study compared to purely cross-sectional or time-series data, as it enables simultaneous observation of multiple entities over time. The adoption of panel data allows this study to track changes in firm value across time and more accurately assess the consistency of the influence of tax planning, firm size, and capital structure. Furthermore, the 2019–2024 timeframe is particularly relevant as it encompasses the pre-pandemic period, the COVID-19 pandemic, and the post-pandemic economic recovery phase, thereby providing a rich empirical context for analyzing variations in corporate market value.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

This study examines four variables: firm value as the dependent variable, and tax planning, firm size, and capital structure as the independent variables. The sample consists of food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2019–2024, selected based on predetermined sampling criteria, yielding 26 companies and 156 total observations. The results of the descriptive statistical analysis are presented in Table 1 below.

Table 1. Descriptive Statistics of Ratio-Scale Variables

Date: 04/24/26 Time: 14:42
Sample: 2019 2024

	Y	X1	X2	X3
Mean	3.182286	0.247053	29.59988	0.390592
Median	2.380592	0.224850	29.42311	0.400439
Maximum	32.78425	1.128212	32.93787	0.831508
Minimum	0.325528	-0.051485	27.22503	0.067154
Std. Dev.	4.276610	0.117493	1.477465	0.190997
Skewness	4.427418	4.161671	0.317966	0.056995
Kurtosis	26.75092	29.26883	2.171426	1.863054
Jarque-Bera Probability	4176.344 0.000000	4935.641 0.000000	7.091143 0.028852	8.486653 0.014360
Sum	496.4366	38.54021	4617.582	60.93240
Sum Sq. Dev.	2834.856	2.139700	338.3502	5.654348
Observations	156	156	156	156

Based on Table 1, the firm value variable (Y) recorded a mean of 3.182286 and a median of 2.380592, with a maximum value of 32.78425, a minimum of 0.325528, and a standard deviation of 4.276610, indicating substantial dispersion across observations. The tax planning variable (X1) showed a mean of 0.247053 and a standard deviation of 0.117493, with some negative values observed, reflecting variation in firms' tax efficiency strategies. The firm size variable (X2) exhibited a mean of 29.59988 with a relatively low standard deviation of 1.477465, suggesting that firm size across the sample was comparatively homogeneous. The capital structure variable (X3) had a mean of 0.390592 and a standard deviation of 0.190997, reflecting moderate variation in debt financing policies among sample firms over the observation period.

Descriptive Statistics of Firm Value

As the primary dependent variable in this study, firm value measured by PBV captures investors' perceptions of a company's ability to generate long-term economic returns. The descriptive statistics of firm value across the 2019–2024 observation period are presented in Table 4.2 below.

Table 2. Descriptive Statistics of Firm Value

Keterangan	2019	2020	2021	2022	2023	2024
Mean	4,454050	3,688335	2,794129	2,861693	2,582024	2,713484
Maximum	29,41692	32,78425	14,95200	17,57019	11,73538	10,08316
Minimum	0,325528	0,336875	0,580329	0,543418	0,510509	0,438614
Std.Deviasi	6,293699	6,175177	2,935430	3,350204	2,355521	2,728808

Table 2 reveals that firm value exhibited fluctuating dynamics throughout the 2019–2024 period. In 2019, the mean PBV stood at 4.454050 with a standard deviation of 6.293699 — the latter exceeding the former — indicating a highly heterogeneous distribution with a considerable gap between high- and low-value firms. In 2020, the mean declined to 3.688335, reflecting a general deterioration in firm performance, though the maximum value rose to 32.78425, suggesting that select firms achieved exceptional valuations amid broader market

weakness. A continued decline to a mean of 2.794129 in 2021 was accompanied by a narrowing standard deviation of 2.935430, implying increasing homogeneity among firms. A modest recovery was observed in 2022 (mean = 2.861693), before the mean fell again to 2.582024 in 2023, with the standard deviation of 2.355521 falling below the mean for the first time, indicating greater distributional convergence. By 2024, the mean stabilized at 2.713484 with a standard deviation of 2.728808, signaling relative market stabilization. Overall, firm value demonstrated a downward trend from 2019 to 2023, followed by stabilization in 2024, with progressively diminishing inter-firm dispersion over time.

Descriptive Statistics of Tax Planning

Tax obligations represent one of the most significant cost burdens for companies, directly affecting profitability and shareholder value; consequently, firms are incentivized to adopt tax strategies to reduce their tax liabilities, though overly aggressive tax avoidance can negatively affect corporate reputation and intangible asset value (Dewi et al., 2026). The descriptive statistics for the tax planning variable are presented in Table 3 below.

Table 3. Descriptive Statistics of Tax Planning

Keterangan	2019	2020	2021	2022	2023	2024
Mean	0,287706	0,225690	0,214801	0,229260	0,247240	0,277620
Maximum	0,921846	0,388925	0,290339	0,390414	0,485960	1,128212
Minimum	0,029169	-0,051469	0,169095	0,171556	0,084259	0,109782
Std.Deviasi	0,160174	0,090925	0,024622	0,051543	0,090776	0,188641

Table 3 reveals that the tax planning variable, measured by the Effective Tax Rate (ETR), exhibited fluctuating patterns across the 2019–2024 period. In 2019, the mean ETR was 0.287706 with a standard deviation of 0.160174, indicating moderate inter-firm variation and the presence of both highly efficient and less efficient tax strategies, as reflected by a minimum of 0.029169 and a maximum of 0.921846. In 2020, the mean declined to 0.225690 alongside a negative minimum value of -0.051469, suggesting anomalous tax conditions likely driven by pandemic-related fiscal disruptions. The year 2021 recorded the lowest mean of 0.214801 with the smallest standard deviation of 0.024622, implying a high degree of uniformity in tax planning strategies across firms. A gradual recovery in mean ETR was observed from 2022 (0.229260) through 2023 (0.247240) and into 2024 (0.277620), accompanied by an expanding standard deviation, particularly in 2024 (0.188641), which indicates increasing divergence in firms' tax planning approaches. Overall, tax planning followed a declining trend in the early period before recovering toward 2024, with growing inter-firm heterogeneity in the later years of the study.

Descriptive Statistics of Firm Size

Firm size reflects the scale of a company's operations and can be assessed through various indicators including total assets, total sales, and market capitalization (Dwiastuti et al., 2019). In this study, firm size is proxied by the natural logarithm of total assets, which provides a stable and scale-neutral measure of operational magnitude. The descriptive statistics for firm size across the observation period are presented in Table 4 below.

Table 4. Descriptive Statistics of Firm Size

Keterangan	2019	2020	2021	2022	2023	2024
Mean	29,43198	29,54050	29,55862	29,63670	29,68722	29,74429
Maximum	32,19744	32,72561	32,81992	32,82638	32,85992	32,93787
Minimum	27,22503	27,23769	27,36670	27,48031	27,44274	27,60474
Std.Deviasi	1,470614	1,584623	1,521271	1,498493	1,470472	1,439601

Table 4 shows that firm size demonstrated a consistently increasing trend throughout the 2019–2024 period, reflecting steady asset accumulation across sample companies. In 2019, the mean was 29.43198 with a standard deviation of 1.470614, indicating relative homogeneity in firm size among the sample. Gradual increases in the mean were recorded in subsequent years — rising to 29.54050 in 2020, 29.55862 in 2021, 29.63670 in 2022, 29.68722 in 2023, and reaching its peak of 29.74429 in 2024 — suggesting consistent asset growth across firms. Notably, the standard deviation progressively declined toward 2024 (1.439601), indicating that firm size became increasingly homogeneous over time, with diminishing scale disparities among sample companies. The relatively narrow range between minimum and maximum values across all years further confirms that firm size differences within the sample remained moderate and stable. Overall, these findings indicate that sample firms experienced sustained and broadly uniform asset growth throughout the observation period, with no significant widening of size disparities.

Descriptive Statistics of Capital Structure

Capital structure reflects the composition of debt utilized by a firm in financing its operational activities; a higher proportion of debt in the capital structure implies greater financial risk exposure, which may reduce investor interest due to heightened uncertainty regarding the company's financial obligations (Galuh et al., 2024). In this study, capital structure is measured using the Debt to Asset Ratio (DAR), which captures the extent to which a firm's assets are financed through external borrowing. The descriptive statistics for capital structure across the observation period are presented in Table 5 below.

Table 5. Descriptive Statistics of Capital Structure

Keterangan	2019	2020	2021	2022	2023	2024
Mean	0,417381	0,429615	0,380546	0,369275	0,362331	0,384406
Maximum	0,732553	0,738052	0,692072	0,711399	0,831508	0,754237
Minimum	0,115493	0,115158	0,104504	0,097914	0,093235	0,067154
Std.Deviasi	0,186528	0,186481	0,177364	0,189561	0,201715	0,211538

Table 5 reveals that capital structure exhibited a fluctuating pattern throughout the 2019–2024 period, reflecting shifts in firms' financing policies in response to evolving economic conditions. In 2019, the mean DAR was 0.417381, indicating a moderate reliance on debt financing, with values ranging from 0.115493 to 0.732553, suggesting considerable heterogeneity in leverage strategies. The mean rose to 0.429615 in 2020, potentially reflecting increased demand for external financing amid pandemic-related pressures, before declining successively to 0.380546 in 2021 and 0.369275 in 2022, suggesting a deliberate shift toward more conservative financing behavior. The mean remained relatively stable at

0.362331 in 2023, though the maximum value surged to 0.831508, indicating that a subset of firms maintained highly leveraged positions. In 2024, the mean recovered to 0.384406, with the minimum falling to its lowest point of 0.067154 and the standard deviation expanding to 0.211538, reflecting increasing divergence between conservative and aggressive financing strategies. Overall, capital structure displayed a declining trend through 2023 followed by a modest rebound in 2024, with the widening range between minimum and maximum values highlighting the growing diversity in firms' debt financing policies across the observation period.

Panel Data Regression Model Selection Results

The following presents the results of panel data regression testing conducted in this study. The regression estimation results are presented in Table 6 below.

Table 6. REM Regression Model

Dependent Variable: LOG(Y)				
Method: Panel EGLS (Cross-section random effects)				
Date: 04/30/26 Time: 00:36				
Sample: 2019 2024				
Periods included: 6				
Cross-sections included: 26				
Total panel (balanced) observations: 156				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14.61518	2.274198	6.426522	0.0000
X1	0.560352	0.235790	2.376489	0.0187
X2	-0.494243	0.077742	-6.357493	0.0000
X3	1.505801	0.285815	5.268450	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.820436	0.8885
Idiosyncratic random			0.290628	0.1115
Weighted Statistics				
Root MSE	0.290633	R-squared	0.267771	
Mean dependent var	0.101940	Adjusted R-squared	0.253319	
S.D. dependent var	0.340736	S.E. of regression	0.294433	
Sum squared resid	13.17696	F-statistic	18.52841	
Durbin-Watson stat	1.245782	Prob(F-statistic)	0.000000	
Unweighted Statistics				

R-squared	0.045968	Mean dependent var	0.712235
Sum squared resid	119.0973	Durbin-Watson stat	0.137834

Based on Table 6, the panel data regression equation explaining the influence of tax planning, firm size, and capital structure on firm value among food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the period 2019–2024 is expressed as: $LOG(Y) = 14.6152 + 0.5604(X1) - 0.4942(X2) + 1.5058(X3)$. The tax planning coefficient (X1) is positive at 0.560, indicating that a one-unit increase in tax planning is associated with a 0.560 increase in firm value, *ceteris paribus*, suggesting that more effective tax planning tends to be followed by higher firm valuation. The firm size coefficient (X2) is negative at -0.494, meaning that a one-unit increase in firm size is associated with a 0.494 decrease in firm value, *ceteris paribus*, implying that larger firm size does not necessarily translate into greater market valuation. The capital structure coefficient (X3) is positive at 1.506, indicating that a one-unit increase in the debt-to-asset ratio is associated with a 1.506 increase in firm value, *ceteris paribus*, suggesting that a moderate increase in leverage tends to positively affect firm valuation, consistent with the tax shield benefit argument advanced by Bahraini et al. (2021).

Hypothesis Testing

Coefficient of Determination

The coefficient of determination is used to assess the model's capacity to explain variation in the dependent variable. The results of the coefficient of determination estimation are presented in Table 7 below.

Table 7. Coefficient of Determination

Root MSE	0.290633	R-squared	0.267771
Mean dependent var		Adjusted R-squared	0.253319
var	0.101940	S.E. of regression	0.294433
S.D. dependent var	0.340736	F-statistic	18.52841
Sum squared resid	13.17696	Prob(F-statistic)	0.000000
Durbin-Watson stat	1.245782		

Based on Table 7, the R-squared value is 0.267771, indicating that approximately 26.78% of the variation in firm value (Y) is explained by tax planning (X1), firm size (X2), and capital structure (X3), while the remaining 73.22% is attributable to other variables outside the model. The Adjusted R-squared value of 0.253319 further confirms that, after accounting for the number of independent variables, the model explains 25.33% of the variation in firm value, with the remaining 74.67% explained by factors not captured in the present model. Although the explanatory power is moderate, this is consistent with the complexity of firm valuation, which is influenced by a broad array of macroeconomic, industry-specific, and firm-level factors beyond those examined in this study.

Partial Test (t-Test)

The partial t-test is conducted to assess the individual significance of each independent variable in explaining variation in the dependent variable. The partial test results are presented in Table 8 below.

Table 8. Partial Test (t-Test)

Dependent Variable: LOG(Y)
 Method: Panel EGLS (Cross-section random effects)
 Date: 04/30/26 Time: 00:36
 Sample: 2019 2024
 Periods included: 6
 Cross-sections included: 26
 Total panel (balanced) observations: 156
 Swamy and Arora estimator of component variances

Variable	Coefficient	
	nt	Std. Error
C	14.61518	2.274198
X1	0.560352	0.235790
X2	-0.494243	0.077742
X3	1.505801	0.285815

Based on Table 8, the tax planning variable (X1) recorded a probability value of 0.0187, which is below the significance threshold of 0.05; therefore, H_0 is rejected, confirming that tax planning has a statistically significant and positive effect on firm value (coefficient = 0.560352). This finding aligns with Tarigan et al. (2024), who demonstrated that efficient tax planning enhances firm value by increasing net earnings and strengthening investor confidence. The firm size variable (X2) yielded a probability value of 0.0000, leading to the rejection of H_0 and confirming a statistically significant and negative effect on firm value (coefficient = -0.494243), consistent with the findings of Loppies and Wenno (2024), who noted that larger firms do not automatically generate higher market valuations when asset efficiency is lacking. The capital structure variable (X3) also produced a probability value of 0.0000, resulting in the rejection of H_0 and confirming a statistically significant and positive effect on firm value (coefficient = 1.505801), supporting the tax shield hypothesis whereby moderate debt utilization enhances firm value, as argued by Bahraini et al. (2021).

Simultaneous Test (F-Test)

The simultaneous F-test is conducted to examine whether all independent variables jointly and collectively exert a significant influence on the dependent variable. The simultaneous test results are presented in Table 4.15 below.

Table 9. Simultaneous Test (F-Test)

Weighted Statistics			
Root MSE	0.290633	R-squared	0.267771
Mean dependent var	0.101940	Adjusted R-squared	0.253319
S.D. dependent var	0.340736	S.E. of regression	0.294433
Sum squared resid	13.17696	F-statistic	18.52841

Durbin-Watson			
stat	1.245782	Prob(F-statistic)	0.000000

Based on Table 9, the Prob (F-statistic) value is 0.000000, which is substantially below the 0.05 significance level; therefore, H_0 is rejected, confirming that tax planning (X1), firm size (X2), and capital structure (X3) simultaneously and collectively exert a statistically significant influence on firm value (PBV) among food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the period 2019–2024. This result affirms the overall validity and goodness-of-fit of the regression model, and is consistent with the theoretical proposition of Signaling Theory (Spence, 1973), which posits that managerial decisions regarding taxation, scale, and financing structure collectively shape investor perceptions and, consequently, market-based firm valuation.

The Effect of Tax Planning on Firm Value

Based on the results of the hypothesis testing conducted, tax planning was found to have a significant effect on firm value. This indicates that a company's strategy in managing its tax obligations is one of the important factors considered by investors in evaluating the company's performance and prospects. Based on the descriptive analysis, tax planning among the sampled companies exhibited a fluctuating pattern throughout the study period. This reflects the fact that companies employ different strategies in managing their tax burdens, influenced by fiscal policies, economic conditions, and managerial capacity in optimally utilizing available tax incentives. From the perspective of Signaling Theory (Spence, 1973), tax planning represents one form of signal conveyed by management to investors. When a company is able to achieve tax efficiency through legal means, it reflects management's capability in improving net income, thereby sending a positive signal to the market. Such a signal enhances investor confidence and ultimately contributes to an increase in firm value.

These findings are consistent with Tarigan et al. (2024), who argued that tax planning affects firm value as it reflects efficiency in the management of fiscal burdens. However, the findings must also be understood contextually, as Suwardi et al. (2024) demonstrated that excessively aggressive tax planning may generate reputational risks that erode investor confidence. Accordingly, the effect of tax planning on firm value is not solely determined by the degree of tax efficiency, but also by how such strategies are perceived by the market. Tax planning that is conducted optimally, transparently, and in compliance with regulations will enhance firm value.

The Effect of Firm Size on Firm Value

Based on the results of the hypothesis testing, firm size was found to have a significant effect on firm value. This indicates that the scale of a company serves as one of the key indicators shaping investor perception. Based on the descriptive analysis, firm size exhibited an upward trend throughout the study period, reflecting asset growth and business expansion. Furthermore, the relatively low variation in firm size suggests that the companies in the sample share fairly homogeneous characteristics in terms of operational scale. From the perspective of Signaling Theory, a larger firm size signals greater financial strength and operational stability. Companies with larger asset bases tend to have broader access to funding sources and a greater capacity to manage risk. This sends a positive signal to investors, thereby increasing firm value.

These findings are consistent with Bahri et al. (2022), who argued that firm size affects firm value as it reflects a company's capacity to generate profits and sustain its business operations. Similarly, Giawa et al. (2024) demonstrated that larger-scale companies tend to exhibit higher firm values. Nevertheless, the findings also suggest that firm size does not unconditionally exert a positive influence. Loppies and Wenno (2024) found that large companies that fail to manage their assets efficiently may actually experience a decline in firm value. This underscores the importance of asset utilization effectiveness as a determinant of firm value. Therefore, while firm size does influence firm value, its effect is highly contingent upon the company's ability to manage its assets efficiently and productively.

The Effect of Capital Structure on Firm Value

Based on the hypothesis testing results, capital structure was found to have a significant effect on firm value. This indicates that a company's policy regarding the composition of debt and equity constitutes an important factor in shaping firm value. Based on the descriptive analysis, capital structure exhibited a fluctuating pattern throughout the study period, reflecting companies' adjustments to their financing policies in response to both internal and external conditions. From the perspective of Trade-Off Theory (Brigham & Houston, 2011), companies seek to achieve an optimal capital structure by balancing the benefits of debt financing against the associated risks. The proportional use of debt can yield benefits in the form of tax savings through the tax shield mechanism, which may ultimately enhance firm value.

These findings are consistent with Bahraini et al. (2021), who argued that capital structure can increase firm value when managed efficiently. However, other studies, including Giawa et al. (2024) and Husna et al. (2024), demonstrated that excessive debt utilization may elevate financial risk and diminish investor confidence. This suggests that the effect of capital structure on firm value is contextual in nature, depending on the level of debt usage and the company's ability to manage financial risk. Therefore, capital structure plays a significant role in determining firm value. An optimal financing composition will send a positive signal to investors, whereas excessive reliance on debt may reduce firm value.

CONCLUSION

This study examines the effect of tax planning, firm size, and capital structure on firm value in food and beverage subsector companies listed on the Indonesia Stock Exchange for the period 2019–2024, employing 26 sample companies and 156 observational data points. Based on the descriptive analysis, each variable exhibited diverse characteristics throughout the study period. Firm value moved fluctuatively but showed a relatively more stable trend toward the end of the period. Tax planning demonstrated an inconsistent pattern, although there were indications of improvement in tax strategy in subsequent periods. Firm size increased gradually with relatively small variation across companies, while capital structure fluctuated in line with the financing policy adjustments made by companies over time.

The results of hypothesis testing revealed that all three independent variables, namely tax planning, firm size, and capital structure, were each proven to have a significant effect on firm value. Effectively managed tax planning was found to enhance profit efficiency, thereby generating a positive perception among investors. A larger firm size reflects greater

stability and capacity to manage risk, which in turn strengthens investor confidence. Meanwhile, a proportionally managed capital structure can yield financial benefits, although excessive debt utilization carries the potential to elevate the company's financial risk. Simultaneously, all three variables were collectively proven to exert a significant influence on firm value.

Overall, the findings of this study affirm that firm value is the product of interrelated financial decisions. Tax planning reflects the efficiency of fiscal obligation management, firm size represents operational capacity and stability, and capital structure indicates the financing policy adopted by management. These three aspects constitute the primary considerations for investors in assessing a company's prospects. The findings are consistent with Signaling Theory, which posits that every managerial decision carries information that the market may interpret as either a positive or negative signal. Therefore, companies must consistently manage these financial aspects in a transparent and accountable manner in order to convey favorable signals to investors and sustainably enhance firm value.

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