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THE EFFECT OF LEVERAGE, LIQUIDITY, AND SALES GROWTH ON PROFITABILITY FOR MANUFACTURING COMPANIES LISTED ON THE BEI: 2016-2023 PERIOD

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ABSTRACT
This study analyzes the effect of leverage, liquidity, and sales growth on the profitability of manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period 2016-2023. Secondary data is taken from the company's annual financial statements, with independent variables of leverage (debt to equity ratio), liquidity (current ratio), and sales growth, as well as the dependent variable of profitability (return on assets/ROA). The analysis method used is multiple linear regression. Based on the results of the study, it is known that DER, and Sales Growth have no significant effect on the profitability of cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to 2023 as measured by ROA and Current Ratio has a significant effect on the profitability of cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to 2023 as measured by ROA. The results of the study are expected to provide an understanding of the factors that influence the profitability of manufacturing companies in Indonesia and useful information for stakeholders in making investment and financial management decisions.

Keywords: Leverage, Liquidity, Sales Growth, Profitability

INTRODUCTION

Cigarette sub-sector manufacturing companies play an important role in the Indonesian economy, both in terms of contribution to Gross Domestic Product (GDP) and job creation. According to the Central Bureau of Statistics (BPS), the cigarette industry contributed around 1.5% of the total national GDP in 2022. The industry is also one of the largest employment sectors, providing jobs for more than 5 million people both directly and indirectly.

Cigarette manufacturing companies listed on the Indonesia Stock Exchange (IDX) play a strategic role in the economy. The IDX notes that although the industry faces various challenges, such as strict regulations and anti-smoking campaigns, the sector remains attractive to investors due to its high profit potential and relatively stable demand. The period 2016-2023 is an interesting one to analyze as it encompasses various important dynamics, including changes in cigarette excise policies, increased public health awareness, and the impact of the COVID-19 pandemic.

The COVID-19 pandemic has significantly impacted the operations of tobacco companies, which in turn affects their leverage, liquidity and sales growth. Changes in consumer behavior and supply chain disruptions cause fluctuations in revenue and operating costs, so companies must take strategic measures to adjust to these new conditions.

Changes in consumer behavior that reduce cigarette purchases and supply chain disruptions that increase production costs have put considerable financial pressure on cigarette companies. To maintain operational continuity and meet liquidity needs, many tobacco companies are forced to increase their debt. This increase in leverage, while necessary to cover cash flow shortages, also increases financial risk as companies must pay interest and principal on loans in the future, which can negatively impact profitability (McKinsey & Company, 2020).

On the other hand, the liquidity of the company is also affected by increased operational costs and the urgent need to maintain sufficient cash flow. Cigarette companies must manage their current assets more carefully, including optimizing inventory and receivables management, to ensure they can meet their short-term obligations (Ross et al., 2020). Meanwhile, sales growth faces significant challenges due to social restrictions and changing consumption patterns. Many consumers have reduced their cigarette purchases due to decreased income and increased health awareness during the pandemic. Therefore, tobacco companies need to adopt more innovative marketing strategies and adapt to changing consumer preferences to drive sales growth in these uncertain conditions (Kotler & Keller, 2019).

Table 1. Cigarette Sub-Sector Manufacturing Companies Listed on BEI 2016-2023

No	Stock Code	Issuer Name
1.	GGRM	PT Gudang Garam Tbk
2.	HMSP	PT Hanjaya Mandala Sampoerna Tbk
3.	ITIC	PT Indonesian Tobacco Tbk
4.	WIIM	PT Wismilak Inti Makmur Tbk

Source: Processed Data (2024)

In table 1. above, it can be seen that the cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to 2023 consisted of four companies, namely PT Gudang Garam Tbk, PT Hanjaya Mandala Sampoerna Tbk, PT Indonesian Tobacco Tbk, PT Wismilak Inti Makmur Tbk.

Cigarette companies in Indonesia show that even though they face strict regulations and pressure from health campaigns, they are able to maintain good performance through product innovation and effective marketing strategies. In general, there are several factors that affect company performance in companies, namely sales growth, leverage, changes in past profits, company size and general company. According to Halim et al. (2021) in their research state that sales growth, liquidity and leverage are able to influence financial performance as measured by profitability. Sales growth is an increase in sales from year to year which can be seen in the company's profit and loss financial statements, where the higher the sales, the higher the company's profit.

Increased sales and increased operating profit will further increase external parties' trust in the company. And vice versa, if sales decrease, the more profit the company receives decreases and this has an impact on company losses. This is supported by previous researchers who stated that sales growth affects profitability. According to Surya (2016), it states that sales growth has no effect on profitability, but it is different from Fransisca (2019), Sandra (2020) which states that sales growth has a positive and significant effect on profitability.

Another factor that affects profitability is liquidity, according to the Financial Services Authority (OJK) liquidity is the ability to fulfill all obligations that must be paid off immediately in a short time. The liquidity of the company is indicated by the size of current assets, namely cash, securities, accounts receivable, and inventory. If the company's ability to generate profits increases (profit), the company's ability to pay its short-term debt will increase. Conversely, if the company's ability to generate profits falls, the company's ability to pay its short-term debt will fall. This is supported by previous researchers Felany (2018) and Wulandari (2021) state that liquidity has a positive effect on profitability. In contrast to the opinion of Sukmayanti and Triaryati (2019), which states that liquidity has a negative effect on profitability.

The third factor is leverage, leverage is the level of the company's ability to use assets or capital that has a fixed cost (debt or shares) in order to realize the company's goal of maximizing company value. Leverage is used to measure how much the company is financed by borrowed capital. Which if the higher the amount of debt used to buy assets will cause the higher loan interest that will be borne by the company, so that it will be a problem for the lower amount of profit that can be obtained. However, if the company uses debt to increase profits, it will increase company profits. This is supported by previous researchers Felany (2018) stated that leverage has a significant effect on profitability, this is different from researcher Sandra (2020) who stated that leverage has a negative effect on profitability.

Although many studies have been conducted on the factors that influence corporate profitability, there is still a gap in research that specifically analyzes cigarette manufacturing companies in Indonesia in the context of leverage, liquidity, and sales growth. This study is expected to fill that gap by providing a more in-depth and specific analysis. This study aims to analyze how leverage, liquidity, and sales growth affect the profitability of cigarette manufacturing companies listed on the IDX during the period 2016-2023.

LITERATURE REVIEW

Profitability

The ultimate goal that a company wants to achieve is, above all, to earn maximum profits or profits. Companies can do a lot for the welfare of owners, employees, and also improve product quality and make new investments by maximizing profits in a targeted manner. set. That is, the amount of profit should be realized as expected and not imply the source of profit. Profitability ratios have a purpose, not only for company owners or management, but also for parties outside the company or external, especially parties who have a relationship or interest with the company, such as investors, creditors.

According to Cashmere (2015) Profitability Ratio is a ratio that measures or assesses the company's ability to seek profit or profit in a certain period. Where the ratio also provides a measure of the effectiveness of the management of a company can be described by the profit generated from sales and investment income. In this study, researchers used the Return On Asset (ROA) ratio, the reason is that ROA is a ratio that measures the ability o of a company as a whole to generate a profit or profit with the total assets available in (ROA) to shareholders. ROA is one of the important variables for investors to see before investing in a company.

The ratio used in this study is the ROA indicator. The Return On Assset (ROA) indicator is used to measure the company's effectiveness in generating profits by utilizing its assets. According to (Hery 2016,106) states that Return On Asset (ROA) is a ratio that shows how much the contribution of assets in creating net income. Which if the greater the Return On Assets owned by the company, the more efficient the use of assets that will increase the company's profits, large profits will attract investors' attention because the company has a higher rate of return (Hery 2016, 106).

Leverage

According to Senan (2021) leverage is how much the company has to spend funds that have a fixed burden with debt in the company to increase company profits. Leverage is one of the important factors that affect profitability, because using this amount of debt is used to increase the company's capital with the aim of increasing company profits. The reason companies use leverage is because the company's goal is to get greater profits than fixed costs.

The ratio used is Debt to Equity Ratio (DER) is a ratio to measure how much and how little influence in the use of long-term debt compared to the company's own capital. According to Wiranawata (2022) Debt to Equity Ratio is a ratio used to measure the percentage of liabilities in a company's capital structure. A good company should have a composition of capital that is greater than capital. If the greater the Debt to Equity ratio, it reflects the company's higher financial risk. This ratio is very important to be used by companies because this ratio measures the company's business risk which increases along with the increase in the amount of company debt. The indicator used by researchers in this study is the Debt-to-Equity Ratio (DER) indicator, according to (Kasmir 2016, 156).

Liquidity

According to Saidah (2023) Liquidity is the ability of a company to fulfill its financial obligations in the short term or at the time of collection. According to the Financial Services Authority (OJK) liquidity is the company's ability to fulfill all obligations that must be paid off immediately in a short time. Which is where a company is said to be liquid if a company is able and has a current asset payment tool that is greater than the debt it has. Liquidity is used to measure how much the company's ability to meet short-term obligations in a timely manner. According to Saini (2020) the liquidity ratio illustrates how much a company's ability to meet its short-term obligations. The ratio used in the liquidity indicator is Current Ratio (CR). Meanwhile, according to Kasmir (2016), the liquidity ratio is a ratio that shows how much the company's ability to meet its maturing short-term debts. This ratio is used to determine the extent to which current assets cover current debt. If the greater the ratio between current assets and current debt, the higher the company's ability to cover its short-term debt. However, this ratio has a weakness, which is that not all components have the same level of liquidity (Kasmir 2016, 128).

Sales Growth

Sales growth is an increase in the number of products or services sold by a company over a period of time. Sales growth is a ratio that describes a company's ability to maintain its economic position in the economy and business. By knowing how much sales are growing, a company can predict how much profit it will make. Companies that have a relatively stable level of sales can obtain more loans than companies with fluctuating sales. This is because investors prefer stocks of companies with strong finances, stable growth rates, high sales growth, the ability to expand into new markets or diversify products and distribution channels, and pricing power. Therefore, sales growth must always be maintained, and high sales growth indicates that the company concerned can increase company growth and is expected to increase the profit generated. According to Jang (2011) sales and profitability, but this relationship is not always consistent. For example, research finds that sales growth can increase profitability up to a certain point, after which further growth can damage shareholder value and reduce profitability. Growth in sales is an important indicator of market acceptance of the company's products and or services, where the revenue generated from sales will be used to measure sales growth. By using the sales growth indicator, it will determine how much sales growth, the company can predict how much profit it will get. By experiencing an increase in sales, it will have an impact on the company's profitability which will increase the company's profits, large profits will attract investors. According to Cashmere (2016) the calculation of sales growth can be used formula:

HYPOTHESIS

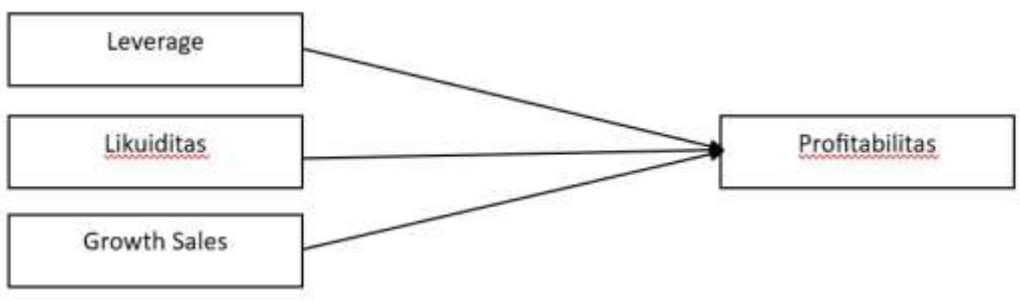

Figure 1. Conceptual Framework
Source: Processed Data (2024)

The effect of using debt has a positive effect if the capital structure uses debt targeted at achieving sales and increasing company profits, so that it will increase company profitability. This is supported by Febria's research (2013) which states that leverage has a positive and significant effect on profitability. In contrast to the researchers Wahyuni (2012) Dewi et al (2015) and Putri (2019) stated that leverage has a negative effect on profitability. H1. Leverage affects profitability in cigarette sub-sector companies

The liquidity ratio is used to measure the solvency of the company's short-term obligations. Sukmayanti and Triaryati (2019) show that the higher the current ratio, the more able the company is to meet its short-term obligations. This is supported by the results of Komang's research (2016) which states that there is an effect of liquidity on profitability. Opinions are supported by the results of research by Arifin et al (2019) which state that liquidity affects profitability, in contrast to the results of research by Sukmayanti and Triaryati (2019) which state that liquidity has no positive effect.
H2. Liquidity affects profitability in cigarette sub-sector companies.

Sales growth is the most important measure of market acceptance of the products and services sold by each company, where the revenue earned from each sale can be used as a measure of how much sales growth can be increased, so as to predict how much profit the company will make. value. This is supported by the results of research by Arifin, Sarita, and Madi (2018) which states that sales growth has a positive and significant effect on profitability (ROA). In line with the results of research by Sukadana and Triaryati (2018), it states that sales growth has a positive and significant effect on profitability.
H3. Sales growth affects profitability in cigarette sub-sector companies.

METHODS

This research is quantitative research with a multiple linear regression analysis approach using PLS / CEM (Common Effect Model). The data used is secondary data obtained from the annual financial statements of cigarette sub-sector manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period 2016-2023. The population in this study includes all manufacturing companies listed on the IDX during that period. The sample selection was carried out by purposive sampling method based on certain criteria. The sample criteria used are (1) all cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to 2023, (2) the company published complete financial reports during the study period (Sekaran & Bougie, 2016). Based on these criteria, the samples in this study were PT Gudang Garam Tbk, PT Hanjaya Mandala Sampoerna Tbk, PT Indonesian Tobacco Tbk, PT Wismilak Inti Makmur Tbk.

The independent variables in this study are leverage as measured by the debt to equity ratio, liquidity as measured by the current ratio, and sales growth. Meanwhile, the dependent variable is profitability as measured by the return on assets (ROA) ratio (Brigham & Houston, 2019). The data obtained will be analyzed using Eviews statistical software. Before conducting regression analysis, a classical assumption test is performed to ensure that the data meets the assumptions of normality, multicollinearity, heteroscedasticity, and autocorrelation (Ghozali, 2018). Hypothesis testing was carried out using multiple linear regression analysis to determine the effect of the independent variable on the dependent variable partially and simultaneously. The significance level used in this study is 5% ($\alpha = 0.05$) (Shresta, 2023).

RESULTS

Chow test

Table 2. Chow Test Result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.976311	(3,25)	0.1433
Cross-section Chi-square	6.810120	3	0.0782

Source: Processed Data (2024)

The chow test is conducted to determine whether the fixed effect model or the common effect model is most appropriate to use in estimating panel data. If the probability value of chi-square > 0.05 then the selected model is CEM. From the table above, it can be seen that the prob. value is 0.0782> 0.05 so that the selected model is CEM.

Lagrange Multiplier Test

Table 3. Lagrange Multiplier Test Result

	Cross-Section	Test Hypothesis Time	Both
Breusch-Pagan	0.021937	0.018224	0.040161
	(0.8823)	(0.8926)	(0.8412)

Source: Processed Data (2024)

The lagrange multiplier test is conducted to determine whether the random effect model or the common effect model is most appropriate to use in estimating panel data. If the probability value> 0.05 then the selected model is CEM. From the table above, it can be seen that the prob. value is 0.8823> 0.05 so that the selected model is CEM.

From the two tests that have been carried out, the most appropriate model for this research is the common effect model.

Classical Assumption Test

By using the CEM method to produce the correct value of the estimated parameters and produce small data errors, it is necessary to detect by conducting a classical assumption test. The classical assumption test is carried out with 4 tests, namely the autocorrelation test, normality test, multicollinearity test and heteroscedasticity test.

From the results of the classification assumption test that has been carried out (can be seen in the attachment) it is known that there are symptoms of autocorrelation where the Durbin-watson value of 1.7683 is not between dUdL and there are symptoms of heteroscedasticity. To treat these symptoms, GLS Panel weighting will be carried out to obtain hypothesis test results.

Hipotesis Test

T-test

Table 4. T-test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.955336	2.306248	1.281448	0.2105
DER	0.047111	0.040325	1.168271	0.2525
Current Ratio	1.858629	0.770592	2.411950	0.0227
Growth Sales	0.053107	0.060583	0.876592	0.3882

Source: Processed Data (2024)

The t test results show that the constant value is 2.955336, which means that if all independent variables (DER, Current Ratio, Sales Growth) are zero, then the ROA of the four cigarette subsector companies will have an average of 3.635832. The t test results on the DER variable (X1) obtained a t value of 1.168271 and a prob value. 0.2525> 0.05, then Ha is rejected, and HO is accepted, meaning that the DER variable has no significant effect on the profitability of cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to 2023.

Furthermore, the t test results on the Current Ratio variable (X2) obtained a t value of 2.411950 and a prob value. 0.0227 <0.05, then H0 is rejected and Ha is accepted, meaning that the Current Ratio variable has a significant effect on the profitability of cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to

2023. The t test results on the Growth Sales variable (X3) obtained a t value of 0.876592 and a prob value. 0.3882 > 0.05, then Ha is rejected, and Ha is accepted, meaning that the Growth Sales variable has no significant effect on the profitability of cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to 2023.

F test

Table 5. F Test Result

F-statistic	2,6718
Prob (F-statistic)	0,0666

Source: Processed Data (2024)

The calculated F value is 2.671844 with a probability of 0.066664> 0.05, then HO is accepted, and Ha is rejected, meaning that the DER, Current Ratio, and Sales Growth variables together have no significant effect on the profitability of cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to 2023 as measured by ROA.

Test Coefficient of Determination (R^2)

Table 6. Test Result of the Coefficient of Determination

R-squared	0,2225
Adjusted R-squared	0,1392

Source: Processed Data (2024)

The adjusted R square value is 0.139260 or 13.93%. This value indicates that the independent variables consisting of DER, Current Ratio, and Sales Growth are able to explain the profitability variable (ROA) of cigarette sub-sector manufacturing companies listed on the IDX during the period 2016 to 2023 by 13.93%, while the remaining 86.07% is explained by other variables not included in this research model.

CONCLUSION

The results of tests conducted on cigarette sub-sector manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2016-2023 period show that Debt to Equity Ratio (DER) and Sales Growth have no significant effect on company profitability as measured by Return on Assets (ROA). However, Current Ratio has a significant effect on company profitability as measured by ROA. The F test shows that the DER, Current Ratio, and Growth Sales variables together have no significant effect on profitability. The coefficient of determination (adjusted R square) of 13.93% indicates that the independent variables in the model are only able to explain 13.93% of the variability in profitability, while the remaining 86.07% is explained by other factors not included in this research model.

Based on these findings, companies should focus on improving liquidity, given that the Current Ratio has a significant effect on profitability. This can be done by managing current assets and short-term liabilities more effectively. For future research, it is recommended to add other variables such as company size (SIZE), Total Asset Turnover (TATO), Quick Ratio, and Working Capital Turnover that may have an influence on profitability. This study only explains a small part of the factors that affect profitability, so the addition of variables can provide a more comprehensive picture.

Faced with changing consumer preferences, especially during uncertain conditions such as a pandemic, cigarette companies need to adopt more innovative and adaptive marketing strategies to drive sales growth. Although DER did not show a significant effect in this study, it is still important for companies to manage debt carefully. Maintaining a healthy level of leverage can help companies remain stable amid market fluctuations. In addition, companies should continue to monitor and try to increase sales growth. Strategies to increase sales should be based on an in-depth analysis of the market and consumer preferences. By implementing these suggestions, companies can improve their financial performance and face the challenges in the cigarette industry more effectively.

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ATTACHMENT

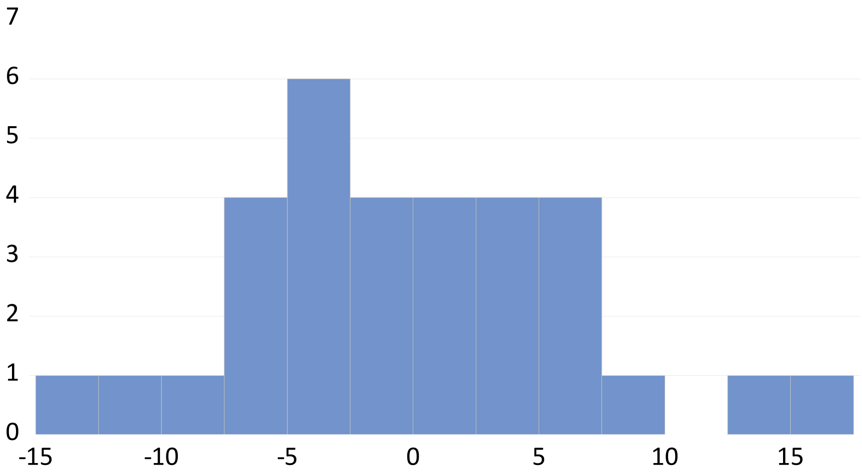
CLASSICAL ASSUMPTION TEST
Auto Correlation Test

Dependent Variable: Y
Method: Panel Least Squares
Date: 06/21/24 Time: 14:01
Sample: 2016 2023
Periods included: 8
Cross-sections included: 4
Total panel (balanced) observations: 32

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.676032	3.252481	1.130224	0.2680
X1	0.022302	0.060545	0.368360	0.7154
X2	2.184515	1.009278	2.164434	0.0391
X3	0.073616	0.094892	0.775790	0.4444

Root MSE	6.651469	R-squared	0.144287
Mean dependent var	9.342813	Adjusted R-squared	0.052603
S.D. dependent var	7.305461	S.E. of regression	7.110719
Akaike info criterion	6.877552	Sum squared resid	1415.745
Schwarz criterion	7.060769	Log likelihood	-106.0408
Hannan-Quinn criter.	6.938284	F-statistic	1.573749
Durbin-Watson stat	1.768310	Prob(F-statistic)	0.217821

Normality Test



Series: Standardized Residuals
Sample 2016 2023
Observations 32

Mean	7.49e-16
Median	-0.779298
Maximum	16.02466
Minimum	-14.74066
Std. Dev.	6.757899
Skewness	0.232729
Kurtosis	3.069673
Jarque-Bera	0.295341
Probability	0.862715

Multicollinearity Test

	X1	X2	X3
X1	1.000000	-0.110039	-0.300707
X2	-0.110039	1.000000	-0.360900
X3	-0.300707	-0.360900	1.000000

Multiple Regression Analysis Test with GLS Weighting to Overcome Autocorrelation and Heteroscedasticity Symptoms

Dependent Variable: Y
Method: Panel EGLS (Cross-section SUR)

Date: 06/21/24 Time: 14:09
Sample: 2016 2023
Periods included: 8
Cross-sections included: 4
Total panel (balanced) observations: 32
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.955336	2.306248	1.281448	0.2105
X1	0.047111	0.040325	1.168271	0.2525
X2	1.858629	0.770592	2.411950	0.0227
X3	0.053107	0.060583	0.876592	0.3882

Weighted Statistics

Root MSE	0.949026	R-squared	0.222558
Mean dependent var	2.281393	Adjusted R-squared	0.139260
S.D. dependent var	1.756403	S.E. of regression	1.014552
Sum squared resid	28.82082	F-statistic	2.671844
Durbin-Watson stat	1.370841	Prob(F-statistic)	0.066664

Unweighted Statistics

R-squared	0.100980	Mean dependent var	9.342813
Sum squared resid	1487.395	Durbin-Watson stat	1.684851