

The Effect of Liquidity and Return on Capital on Profitability (Study of Cigarette Sector Companies Listed on the Indonesia Stock Exchange for the 2016-2020 Period)

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Abstract

The researchers undertook the study to examine the influence of the Current Ratio and Debt-to-Equity Ratio on the Net Profit Margins of Cigarette Sub Sector Manufacturing Companies that are listed on the Indonesia Stock Exchange during the period spanning from 2016 to 2020. The study utilized a descriptive verification methodology. The study employed a statistical methodology of multiple linear regression analysis, utilizing the IBM SPSS Statistics 25.0 software program for Windows. The research employed a sample of 20 financial statements procured from the cigarette sub-sector manufacturing firms listed on the Indonesian stock exchange between the years 2016 and 2020. The present study's results indicate that the Current Ratio and Debt-to-Equity Ratio of cigarette sub-sector manufacturing firms enlisted on the Indonesia stock exchange between 2016 and 2020 significantly impact Net Profit Margin

Keywords : Current Ratio, Debt to Equity Ratio, Net Profit Margin

INTRODUCTION

According to Purwanti (2022), the Current Ratio (CR) is a metric gauges a company's capacity to fulfill its financial commitments and reflects its liquidity about fulfilling imminent obligations. The ratio is computed by dividing current assets by current liabilities to indicate a company's ability to fulfill short-term creditors' requests using assets that can be liquidated within the same timeframe as the debt maturity. A low Current Ratio has been linked to possible liquidity concerns (Jasmani, 2019), whereas an excessively high ratio may impede a company's profitability by indicating an excess of idle funds (Nuswandari et al., 2019; Rajagukguk & Siagian, 2021). Sa'diah et al. (2023) suggest that a higher Current Ratio indicates a greater capacity of a company to fulfill its short-term obligations, thereby highlighting its financial robustness.

The Debt to Equity Ratio (DER) is a financial metric that gauges the relative amount

of debt and equity in a firm's capital configuration, thereby elucidating the equilibrium between capital supplied by creditors and that by company proprietors (Abbas et al., 2019; Samo & Murad, 2019). According to Parvin et al. (2019), there exists a negative impact on profitability for companies that exhibit a higher Debt to Equity Ratio, which is often observed in companies with low-profit growth. According to Sonia and Khafid (2020), an elevated Debt-to-Equity Ratio (DER) implies a more significant proportion of total debt relative to total equity, which indicates a heightened reliance on external creditors and a more significant burden on them. The assessment of a company's business risk is contingent upon the ratio in question, as an increase in total liabilities is directly proportional to a rise in said risk (Sonia & Khafid, 2020).

The Net Profit Margin (NPM) is a financial metric that quantifies the proportion of net profit

generated from net sales (Bintara, 2020; Tansar, 2016). A more significant net profit margin (NPM) indicates superior profitability before income tax, which signifies a higher net profit derived from sales (Bintara, 2020; Tansar, 2016). In contrast, a reduced net profit margin (NPM) indicates a decrease in the net profit obtained from sales, which can hurt profitability (Dewi & Fachrurrozie, 2021). According to Kartikasari et al. (2023), the NPM ratio indicates a company's effectiveness in minimizing operational expenses during a designated timeframe. A more significant net profit margin (NPM) is indicative of superior performance, heightened investor confidence, and the possibility of a rise in share value, as posited by Effendi et al. (2016) and Sulistiana et al. (2023).

Drawing upon relevant theories and empirical research, an augmentation of the Current Ratio (CR) may engender a reduction in the Net Profit Margin (NPM). In contrast, an escalation in the Debt to Equity Ratio (DER) may give rise to a decline in the NPM. Effendi et al. (2016) and Sulistiana et al. (2023) posit that reducing the debt-to-equity ratio (DER) is expected to lead to an increase in the net profit margin (NPM).

Building upon pertinent background phenomena and empirical studies, the current study aims to investigate the impact of the Current Ratio and Debt-to-Equity Ratio on Net Profit Margins in cigarette manufacturing companies listed on the Indonesia Stock Exchange from 2016 to 2020.

METHOD

The method used in this research is descriptive and verification research methods. This research method uses a quantitative approach, namely, the research results, which are then processed and analyzed to conclude carefully to produce conclusions that will clarify the description of the object under study.

This research is intended to explain by carefully measuring certain phenomena and explaining the causal relationship between variables through hypothesis testing using statistical tests.

The sampling method utilized in this investigation is purposive sampling. Purposive sampling is a method for selecting samples based on specific criteria. This purposive sampling technique is utilized because it is suitable for quantitative research or non-generalizable studies. This study's sample consists of Tobacco Sector Companies listed on the Indonesia Stock Exchange between 2016 and 2020.

The independent variable Current Ratio (CR) X1 is measured as follows:

$$\text{Current Rasio} = \frac{\text{Current Assets}}{\text{Current Debt}} \times 100\%$$

Debt to Equity Ratio (DER) X2, namely:

$$\text{DER} = \frac{\text{Total Debt}}{\text{Equity}} \times 100\%$$

As for the dependent variable Net Profit Margin (NPM) Y, namely:

$$\text{NPM} = \frac{\text{Net profit}}{\text{Net sales}} \times 100\%$$

The study will utilize multiple linear regression analyses as the primary method of inquiry. The utilization of multiple linear

regression is contingent upon fulfilling the standard assumption test. After ensuring that the variables conform to the standard assumptions, the subsequent stage entails performing statistical analyses, specifically the t-test and the F-test. The t-test is utilized to evaluate the influence of individual independent variables on the dependent variable. In contrast, the F-test is employed to scrutinize the combined impact of the independent variables on the dependent variable. As the data used in this study are secondary, it is imperative to perform traditional assumption tests to verify the appropriateness of the regression model. The battery of tests comprises assessments of normality, multicollinearity, heteroscedasticity, and autocorrelation.

The present study employs multiple regression analysis as the preferred statistical technique for data analysis. This approach is employed when investigating causal or functional associations between two variables. Given the presence of two distinct, independent variables, namely the current and debt-to-equity ratios, multiple regression analysis is deemed appropriate for this study. Multiple regression analysis is a statistical technique researchers employ to forecast the condition of the dependent variable or criterion. Researchers accomplish this by manipulating two or more independent variables, which serve as predictor factors, and altering their values. The equation for regression with two predictors can be formulated as follows:

$$Y = a + b_1X_1 + b_2X_2$$

Where:

Y = Dependent variable (Net Profit Margin)

a = Y value if X = 0 (constant value)

b1 = Current Ratio (CR) regression coefficient

X1 = Independent variable Current Ratio (CR)

b2 = Debt to Equity Ratio (DER) regression coefficient

X2 = Debt to Equity Ratio (DER) independent variable

RESULTS AND DISCUSSION

Based on the results of the study, the results of the data quality test are as follows:

Table 1. Classic assumption test

| N o. | Items | Criteria | Result | Decision |
|------|-------------------------|--|-----------------------|-----------------------------------|
| 1. | Normality test | Kolmogorov-Smirnov Test Sig value > 0,05 | .200 | Normal |
| 2. | Multicollinearity Test | Coefficients VIF 1 < > 10 | X1=.277 X2=.277 | Multicollinearity does not occur |
| 3. | Heteroscedasticity Test | Scatter plot | Data men yeba r | Heteroscedasticity does not occur |
| 4. | Autocorrelation Test | Durbin Watson by looking at Du and dl values. (k,n=2, 20) | 2.127 | There is no autocorrelation |

The results of the Normality Test, specifically the Kolmogorov-Smirnov Test, yielded a significance level of 0.200. This value suggests that the data adheres to a standard

distribution, as it surpasses the threshold of 0.05. The normal distribution is a fundamental prerequisite for many statistical tests and models, as its fulfillment guarantees precise outcomes.

The Multicollinearity Test results indicate that the coefficients for variables X1 and X2 were computed as 0.277, suggesting the absence of multicollinearity. This implies a lack of significant correlation between the predictor variables (X1 and X2). The reliability of a model can be compromised when strong correlations exist between predictor variables, as this can obscure the impact of each variable.

The Scatterplot analysis conducted to test for Heteroskedasticity revealed that the data is uniformly distributed, indicating the absence of Heteroskedasticity. The discovery above suggests that the residuals or errors exhibit a uniform distribution, a highly sought-after attribute in regression analysis. The presence of heteroskedasticity could introduce distortion to a model and compromise the soundness of statistical inferences.

The Durbin-Watson Test, also known as the Autocorrelation Test, produced a value of 2.127, indicating the lack of autocorrelation. This suggests the absence of a correlation between the values of a variable and its lagged version. Autocorrelation within a time series may suggest the potential impact of prior or current values upon subsequent values.

The statistical assumptions required for regression analysis, namely normality, the lack of multicollinearity, homoscedasticity, and the lack of autocorrelation, have been verified based on the data provided. Thus, it can be asserted that

the model is aptly appropriate for the given data and can produce precise prognostications.

Table 2. Multiple regression test results

| No. | Variable | Unstandardized Coefficients | t | Sig. | Decision |
|----------|----------------------|-----------------------------|--------|-------|-------------|
| | Constanta | 327.005 | 5.031 | 0.000 | |
| 1. | Current Ratio | -.067 | -3.874 | 0.001 | Significant |
| 2. | Debt To Equity Ratio | -1.892 | -3.514 | .003 | Significant |
| R | 0.693 | | | | |
| R Square | 0.481 | Error | 0,519 | | |

The regression equation derived from the provided data is presented below $Y = 327.005 - 0.67X_1 - 1.892X_2$. The constant term, represented by the symbol "a = 327.005," signifies that the net profit margin attains a value of 327.005 units when the current and debt-to-equity ratios remain constant or equal to zero. The obtained coefficient β_1 of -0.67 indicates that a rise of one unit in the current ratio while holding all other variables constant or at a value of zero indicates a reduction in the net profit margin by -0.67 units. The coefficient β_2 is -1.892, suggesting that an increase of one unit in the debt-to-equity ratio while keeping all other variables constant or at zero is associated with a decline of -1.892 units in the net profit margin.

Upon examination of the coefficient of determination presented in column R of the table,

it is noted that it possesses a value of 0.693. The aforementioned numerical figure, upon being squared and subsequently multiplied by 100%, denotes the proportionate impact of the current and debt-to-equity ratios on the net profit margin, amounting to 48.1%. The residual 51.9% denotes the impact of unexplored variables in the present investigation.

The Current Ratio (CR) indicates a firm's ability to meet its financial obligations. It reflects its liquidity, which denotes its capacity to satisfy obligations promptly. A current ratio that falls below the normative benchmark may indicate liquidity issues. In contrast, an excessively high current ratio implies an overabundance of idle funds that could undermine the company's profitability. Consequently, an elevated current ratio signifies an improved capacity to fulfill short-term financial commitments. Furthermore, when viewed holistically, the current ratio functions as a metric of a firm's capacity to discharge immediate financial obligations or debts that are anticipated to be resolved in the immediate future.

The Debt-to-Equity Ratio (DER) is a financial metric that quantifies the relative amount of debt and equity financing a company utilizes. It offers valuable insights into comparing the financial resources that creditors provide and those that the company's owners contribute. The correlation between the debt-to-equity ratio and reduced profitability is further emphasized in companies encountering restricted profit expansion. A more excellent debt-to-equity ratio signifies a heightened percentage of overall debt compared to total equity, thus imposing a weightier responsibility on external

creditors. Furthermore, the debt-to-equity ratio is a metric that quantifies the proportion of liabilities in a firm's capital structure. This is a crucial factor in evaluating the company's business risk, which tends to rise in tandem with the overall liabilities.

The Net Profit Margin (NPM) is a metric utilized to determine the proportion of net profit concerning net sales, expressed as a percentage. This proportion's computation involves dividing the net income by the net sales. A more significant net profit margin signifies a high net profit derived from net sales, which may enhance profitability before income tax. On the other hand, a decrease in net profit margin indicates a decline in the net profit obtained from net sales, potentially leading to a decrease in pre-tax profitability.

The net profit margin ratio provides valuable insights into a firm's operational efficiency; mainly, it is the capacity to curtail operational expenses over a given timeframe. A more significant net profit margin indicates superior performance, as it suggests the company's capacity to efficiently generate profits from sales in conjunction with successful cost reduction strategies. On the other hand, a decrease in the net profit margin indicates comparatively low profitability and inadequate cost minimization, which could dissuade potential investors from allocating their capital, ultimately leading to a decrease in the firm's stock value.

Theoretical postulations based on empirical studies and background phenomena suggest that an escalation in the current ratio (CR) is associated with a reduction in the net profit margin (NPM). In contrast, an upsurge in the net

profit margin (NPM) is linked to a decline in the current ratio (CR). Furthermore, a rise in the debt-to-equity ratio (DER) reduces the net profit margin (NPM).

CONCLUSION

The present investigation aims to scrutinize the influence of the Current Ratio and Debt-to-Equity Ratio on the Net Profit Margin. The present study employs multiple linear regression analysis techniques using IBM SPSS Statistics 25.0 software for Windows. The dataset comprises twenty financial reports about the cigarette sub-sector manufacturing firms enlisted on the Indonesian Stock Exchange.

Drawing upon the actual data and employing various linear regression models, it can be deduced that the Net Profit Margin of cigarette manufacturing sub-sector firms, which are publicly traded on the Indonesian stock exchange between 2016 and 2020, is significantly impacted by the Current Ratio and Debt-to-Equity Ratio. Companies must prioritize maintaining and enhancing their current asset and liability management effectiveness to augment their Net Profit Margin in the future.

In summary, the Current Ratio (CR) is a crucial metric that evaluates a firm's capacity to fulfill its monetary commitments and reflects its solvency. The financial metric in question involves comparing a company's current assets with its current liabilities, indicating its ability to meet its short-term financial obligations promptly. Maintaining an optimal current ratio is imperative. An excessively low or high current ratio may signify underlying concerns, such as liquidity challenges or excessive unutilized funds

that could adversely affect the company's profitability.

The Debt-to-Equity Ratio (DER) is a financial metric that measures the relative amount of debt and equity in a company's capital structure. This ratio offers valuable insights into the balance of funding sources between creditors and shareholders. The company's financial leverage is illuminated by this, where a higher ratio denotes an increased obligation from external creditors. The Debt-to-Equity Ratio (DER) can adversely impact the profitability of companies that experience constrained profit growth.

The Net Profit Margin (NPM) is a metric that quantifies the proportion of net profit to net sales, thereby indicating the company's efficacy in converting sales into profits. The impact on a company's positive or negative profit potential is a direct result of this factor, without taking into account any income tax implications.

To summarize, the financial ratios of the Current Ratio (CR), Debt-to-Equity Ratio (DER), and Net Profit Margin (NPM) are crucial in understanding a company's financial health, profitability, and capacity to fulfill its financial commitments. The balanced utilization of these ratios is imperative, considering their implications for the company's financial position and overall business operations.

REFERENCES

- Abbas, F., Iqbal, S., & Aziz, B. (2019). The impact of bank capital, bank liquidity and credit risk on profitability in postcrisis period: A comparative study of US and Asia. *Cogent Economics &*
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- Finance, 7(1), 1605683.
<https://doi.org/10.1080/23322039.2019.1605683>
- Bintara, R. (2020). The Effect of Working Capital, Liquidity and Leverage on Profitability. *Saudi Journal of Economics and Finance*, 04(01), 28–35.
<https://doi.org/10.36348/sjef.2020.v04i01.005>
- Dewi, C. R., & Fachrurrozie, F. (2021). The Effect of Profitability, Liquidity, and Asset Structure on Capital Structure with Firm Size as Moderating Variable. *Accounting Analysis Journal*, 10(1), 32–38.
<https://doi.org/10.15294/aaj.v10i1.44516>
- Effendi, E., Affandi, A., & Sidharta, I. (2016). Analisa Pengaruh Rasio Keuangan Model Springate Terhadap Harga Saham Pada Perusahaan Publik Sektor Telekomunikasi. *Jurnal Ekonomi, Bisnis & Entrepreneurship (e-Journal)*, 10(1), 1–16.
- Jasmani, J. (2019). The Effect of Liquidity and Working Capital Turnover on Profitability at PT. Sumber Cipta Multiniaga, South Jakarta. *PINISI Discretion Review*, 3(1), 29.
<https://doi.org/10.26858/pdr.v3i1.13269>
- Kartikasari, S., Karmana, D., Nasution, S. M., & Fudsy, M. I. (2023). Financial Ratio Analysis at PT. Indocement Tunggul Prakarsa Tbk. Registered on The Indonesia Stock Exchange for The 2016 - 2020 Period. *Majalah Bisnis & IPTEK*, 16(1), 150–162.
<https://doi.org/10.55208/bistek.v16i1.394>
- Nuswandari, C., Sunarto, S., Jannah, A., & Ikromudin, I. (2019). Corporate Social Responsibility Moderated the Effect of Liquidity and Profitability on the Firm Value. *Proceedings of the International Conference on Banking, Accounting, Management, and Economics (ICOBAME 2018)*.
<https://doi.org/10.2991/icobame-18.2019.19>
- Parvin, S., Chowdhury, A. N. M. M. H., Siddiqua, A., & Ferdous, J. (2019). Effect of Liquidity and Bank Size on the Profitability of Commercial Banks in Bangladesh. *Asian Business Review*, 9(1), 7–10.
<https://doi.org/10.18034/abr.v9i1.219>
- Purwanti, D. (2022). Analysis of the Effect Liquidity, Leverage, Profitability and Sales Growth on Financial Distress (Altman Z-Score) (Empirical Study of Retail Sub - Sector Companies Listed on the Indonesia Stock Exchange (IDX) 2015-2019). *Journal of Economics, Finance And Management Studies*, 05(03).
<https://doi.org/10.47191/jefms/v5-i3-23>
- Rajagukguk, J., & Siagian, H. (2021). The Effect of Liquidity and Total Asset Turnover on Profitability: Research Study n Pharmaceutical Companies in Indonesia Stock Exchange. *Ekonomis: Journal of Economics and Business*, 5(2), 444.

- <https://doi.org/10.33087/ekonomis.v5i2.400>
- Sa'diah, N. H., Manik, E., & Danasasmita, W. M. (2023). Effect of Liquidity and Profitability on Company Value. *Acman: Accounting and Management Journal*, 3(1), 42–48. <https://doi.org/10.55208/aj.v3i1.59>
- Samo, A. H., & Murad, H. (2019). Impact of liquidity and financial leverage on firm's profitability – an empirical analysis of the textile industry of Pakistan. *Research Journal of Textile and Apparel*, 23(4), 291–305. <https://doi.org/10.1108/RJTA-09-2018-0055>
- Sari, D., & Brata, I. O. D. (2020). THE EFFECT OF WORKING CAPITAL TURNOVER ON PROFITABILITY (EMPIRICAL STUDY OF TEXTILE AND GARMENT COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE 2014-2018 PERIOD). *Majalah Bisnis & IPTEK*, 13(1), 45–54. <https://doi.org/10.55208/bistek.v13i1.145>
- Sonia, D., & Khafid, M. (2020). The Effect of Liquidity, Leverage, and Audit Committee on Sustainability Report Disclosure with Profitability as a Mediating Variable. *Accounting Analysis Journal*, 9(2), 95–102. <https://doi.org/10.15294/aaaj.v9i2.31060>
- Sulistiana, A., Ningsih, T., Tansar, I. ., & Machmud, S. (2023). THE EFFECT OF CORPORATE GROWTH AND PROFITABILITY ON COMPANY VALUE IN ONE OF THE NATIONAL PRIVATE BANKS IN INDONESIA PERIOD 2012 TO 2019. *Jurnal Computech & Bisnis (e-Journal)*, 16(2), 172–180.
- Tansar, I. A. (2016). Return on Stock in the Context of Day of the Week Effect. *Jurnal Ekonomi, Bisnis & Entrepreneurship (e-Journal)*, 10(1), 60–75.
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