# Assessing Financial Performance in Consumer Goods Manufacturing: The Role of Debt to Assets Ratio, Current Ratio, and Inventory Turnover

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**Abstract** — *Manufacturing companies in the consumer goods sector play a vital role in satisfying market demands and attracting investors, especially those listed on the Indonesia Stock Exchange (IDX). This study assesses the financial performance of consumer goods manufacturing companies listed on the IDX, focusing on the cosmetics and household goods sub-sector. It examines the influence of Debt to Assets Ratio (DAR), Current Ratio (CR), and Inventory Turnover on financial performance. Data analysis utilizes panel data regression tests. Findings reveal that all three variables significantly impact financial performance, suggesting that managing these ratios can enhance company profitability and value. The study offers practical recommendations for improving asset management, liquidity, and inventory turnover to optimize consumer goods manufacturing sector financial performance.*
*Keywords: Financial performance, Debt to Assets Ratio, Current Ratio, Inventory Turnover, Consumer goods manufacturing, Indonesia Stock Exchange.*

**Abstrak** — Perusahaan manufaktur di sektor barang konsumen memainkan peran penting dalam memenuhi permintaan pasar dan menarik investor, terutama yang terdaftar di Bursa Efek Indonesia (IDX). Penelitian ini menilai kinerja keuangan perusahaan manufaktur barang konsumen yang terdaftar di IDX, dengan fokus pada sub-sektor kosmetik dan barang rumah tangga. Penelitian ini menguji pengaruh *Debt to Assets Ratio* (DAR), *Current Ratio* (CR), dan *Inventory Turnover* terhadap kinerja keuangan. Analisis data menggunakan regresi data panel dan uji asumsi klasik. Temuan penelitian ini menunjukkan bahwa ketiga variabel tersebut berdampak signifikan pada kinerja keuangan. Dengan demikian, menyarankan bahwa mengelola rasio-rasio ini dapat meningkatkan profitabilitas dan nilai perusahaan. Studi ini menawarkan rekomendasi praktis untuk meningkatkan manajemen aset, likuiditas, dan perputaran inventaris guna mengoptimalkan kinerja keuangan dalam sektor manufaktur barang konsumen..
**Kata Kunci:** inerja keuangan, *Debt to Assets Ratio, Current Ratio, Inventory Turnover*, Manufaktur barang konsumen, Bursa Efek Indonesia.

## INTRODUCTION

Manufacturing companies play a central role in transforming raw materials into high-quality finished products or processing semi-finished goods into finished products. The presence of manufacturing companies, particularly those listed on the Indonesia Stock Exchange (IDX), not only meets market demands by providing finished goods but also attracts investors. The trading of manufacturing companies' stocks on the IDX reflects investors' interest in the products they produce.

The Indonesia Stock Exchange (IDX) is a governmental institution providing securities trading facilities in Indonesia. Manufacturing companies listed on the IDX, especially in the consumer goods sector, encompass subsectors such as food and beverage industries, tobacco, pharmaceuticals, cosmetics, and household goods. Within this framework, competition among companies in the consumer goods sector becomes increasingly crucial, urging each company to compete effectively in enhancing the value and marketing of its products.

The primary objective of manufacturing companies in the consumer goods sector is to enrich customers' lives by providing high-value products and services. Operational effectiveness in a competitive environment can yield profits, positively impact company earnings, and enhance value for shareholders.

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Financial performance reports reflect the success of company management in implementing business plans and operational strategies. Financial performance analysis utilizes financial ratio analysis tools, which compare a company's performance from one period to the next. Financial ratios such as solvency, liquidity, and activity are primary dimensions in analyzing a company's financial performance (Ahrendsen & Katchova, 2012).

In this context, three financial ratios, namely Debt to Asset Ratio (DAR), Current Ratio (CR), and Inventory Turnover, are the focus of research to evaluate the long-term financial performance of manufacturing companies in the consumer goods sector listed on the IDX. Although financial ratios are common in other industries, their application remains limited in the property sector (Chan & Abdul-Aziz, 2017).

The financial performance of manufacturing companies in the consumer goods sector, especially in sub-sectors such as cosmetics and household appliances, draws attention due to significant changes over the last five years (2011-2016)—some companies, such as PT. Unilever Indonesia Tbk. has recorded high net profit growth, while others have experienced fluctuations. Therefore, this research will examine the influence of three financial ratios on the financial performance of manufacturing companies in the consumer goods sector listed on the IDX.

This research is based on previous financial performance literature (Katchova & Enlow, 2013) and observed phenomena in the cosmetics and household appliance business sectors. Although some products in this sector are not daily necessities, consumer preferences and desires remain relevant. Manufacturing companies in the cosmetics industry, including PT. Unilever Indonesia Tbk (UNVR), PT. Akasha Wira Internasional Tbk (ADES), PT. Kino Indonesia Tbk (KINO), PT. Cottonindo Ariesta Tbk (KPAS), PT. Martina Berto Tbk (MBTO), PT. Mustika Ratu Tbk (MRAT), and PT. Mandom Indonesia Tbk (TCID) are committed to creating value for consumers and shareholders.

Thus, this research will contribute to testing the influence of Debt-To-Asset Ratio, Current Ratio, and Inventory Turnover on the financial performance of manufacturing companies in the consumer goods sector listed on the Indonesia Stock Exchange (IDX). Literature references from Wolf et al., (2016), Britney, (1980), Widnyana et al., (2020), Ahrendsen & Katchova (2012), and Chen et al., (2001) provide a basis for further understanding and analysis of the variables studied in this research.

Based on the above background, the problems that can be outlined are as follows: first, what is the influence of Debt to Asset Ratio (DAR) on Financial Performance? Second, what is the influence of the Current Ratio on Financial Performance? Third, what is the influence of Inventory Turnover on Financial Performance?

By specifying the problem above formulations, the objectives of this research are to analyze the impact of each variable on the financial performance of manufacturing companies: (1) The research objective is to analyze the influence of Debt Asset Ratio (DAR) on a company's financial performance. (2) The research objective focuses on analyzing the influence of the Current Ratio on a company's financial performance. (3) The final research objective is to analyze the influence of Inventory Turnover on a company's financial performance.

Through this research, it is expected to gain a deeper understanding of the contribution of these variables to the financial performance of manufacturing companies in the consumer goods sector listed on the Indonesia Stock Exchange (IDX).

## LITERATURE REVIEW
### Financial Performance

In the economic context, the term "performance" reflects the potential and capabilities of a company to achieve goals or objectives related to measurement concepts (Suvvari et al., 2019). Research indicates the necessity of considering organizational performance from a financial perspective, increasing interest in key indicators in the financial field (Dunk, 2005). Financial performance is critical in evaluating overall organizational performance (Winand et al., 2012). The approach to measuring financial performance can be conducted through financial ratio analysis, a measuring tool to assess a company's ability to generate profits. Financial ratio analysis has been a commonly used basic model for evaluating business performance over the years and comparing it with other companies in the industry (Mbona & Yusheng, 2019).

Financial ratio analysis is the most common form of financial analysis, involving comparing companies based on financial ratios calculated from figures published by the companies. These ratios help compare a company's performance over time, regardless of the company's scale (Ozgulbas & Serhan Koyuncugil, 2006). High ratios reflect good financial performance and positive prospects, triggering positive reactions from investors and potentially increasing the company's value. Financial performance can be measured by various financial ratios, such as Debt to Asset Ratio (DAR), Current Ratio (CR), and Inventory Turnover (Widnyana et al., 2020).

### Debt To Asset Ratio (DAR)

Debt to Asset Ratio (DAR) is the comparison between a company's total debt and assets (Widnyana et al., 2020). DAR is a leverage indicator that measures the extent to which assets are financed by debt over a period (Gadanakis et al., 2020). This ratio provides an overview of the company's financial position by considering the proportion of debt to

operations as part of the total asset value. A low DAR reflects a large equity position and lower bankruptcy risk. Efficient use of external capital can increase the company's value, reduce bankruptcy risk, and attract investors with lower borrowing costs (A. Wolf et al., 2016).

### Current Ratio (CR)

The Current Ratio (CR) reflects the company's liquidity level in meeting its financial obligations when due. CR is calculated by comparing current assets to current liabilities. A high CR can indicate weak management and increase the risk of excessive receivables (Rani et al., 2015).

### Inventory Turnover

Inventory Turnover measures the company's efficiency in managing inventory and reflects how quickly inventory can be turned over. A high inventory turnover rate indicates efficient inventory management, avoiding accumulation or excess inventory (Syafitri, 2015). Additionally, Inventory Turnover also serves as an indicator of the company's working capital turnover that can change over time (Britney, 1980).

### The Influence of Debt To Assets Ratio (DAR) On Financial Performance

A high DAR value can have a positive impact on the company's value and reflect efficiency in using external capital. Modigliani & Miller theory states that the use of debt can maximize the company's value, although investors must consider the increased dependency risk on debt (Iqbal et al., 2016). Previous research has supported a positive relationship between Debt to Assets Ratio and financial performance (Wolf et al., 2016; Widnyana et al., 2020).

### The Influence of Current Ratio On Financial Performance

The Current Ratio measures the company's ability to meet its short-term obligations. Previous research has identified the relationship between Current Ratio and financial performance risk (Wolf et al., 2016; Ahrendsen & Katchova, 2012). Although a high Current Ratio reflects good liquidity, it does not always mean an increase in the company's value (Harahap et al., 2020).

### The Influence of Inventory Turnover On Financial Performance

Inventory Turnover reflects the company's ability to manage inventory, with a high turnover rate indicating good efficiency and productivity (Syafitri, 2015; Britney, 1980). However, a low Inventory Turnover rate can indicate inefficiency in collecting receivables and accounts receivable balances (Liu et al., 2013). The influence of inventory turnover on a company's financial performance requires an understanding of the industry and competitive strategies that the company applies (Subarjo & Sari, 2017).

## METHOD

### Subject and Object of Study

The subject of this study consists of manufacturing companies within the consumer goods sector listed on the Indonesia Stock Exchange (IDX). Specifically, the focus is on the cosmetics and household goods sub-sector from 2017-2022. The study encompasses seven manufacturing companies: PT. Unilever Indonesia Tbk (UNVR), PT. Akasha Wira Internasional Tbk (ADES), PT. Kino Indonesia Tbk (KINO), PT. Cottonindo Ariesta Tbk (KPAS), PT. Martina Berto Tbk (MBTO), PT. Mustika Ratu Tbk (MRAT), and PT. Mandom Indonesia Tbk (TCID). The object of study is financial performance, serving as the dependent variable (Y). In contrast, the independent variables (X) include debt-to-asset ratio (DAR), Current Ratio (CR), and Inventory Turnover (IT).

### Research Location

The research is conducted within the consumer goods manufacturing sector, focusing on cosmetics and household goods companies listed on the IDX from 2017 to 2022.

### Population and Sample

The population comprises seven manufacturing companies within the cosmetics and household goods sub-sector listed on the IDX. A purposive sampling technique is employed to select companies with comprehensive financial reports for the period under study.

### Operational Variables
*Dependent Variable (Y)*

In this study, the financial performance of manufacturing companies within the consumer goods sector, specifically in the cosmetics and household goods sub-sector listed on the Indonesia Stock Exchange (IDX) during the period 2017-2022, is assessed using a financial performance research tool derived from various literature sources, tailored to the research requirements. Financial performance serves as the dependent variable (Y) in this study. Mathematically, financial performance is measured by Return on Assets (ROA), formulated as follows:

$$ROA = \frac{Net\ Income}{Total\ Assets}\ X\ 100\%$$

*Independent Variables (X)*
*Debt to Assets Ratio (X1)*

The Debt to Assets Ratio (DAR) is one of the solvency ratios examined in this research. DAR compares a company's total liabilities to its total assets. It is used to assess a company's ability or

performance to sustain itself over a certain period. Mathematically, DAR is calculated as:

$$DAR = \frac{Total\ lialibilities}{Total\ Assets}$$

*Current Ratio (X2)*

The Current Ratio (CR) is one of the liquidity ratios studied in this research. It is defined as a ratio of less than one year, referring to assets likely to be sold within the following year and liabilities due within the following year. The formula used to calculate the current ratio is:

$$CR = \frac{Current\ Assets}{Current\ lialibilities}$$

*Inventory Turnover (X3)*

Inventory turnover is one of the activity ratios examined in this study. It measures the number of times inventory is sold during a specific period, providing insights into inventory management effectiveness. The formula for inventory turnover is:

$$IT = \frac{Cost\ of\ Goods\ Sold}{Average\ inventory}$$

## Sampling Technique

A purposive sampling technique is utilized to select companies meeting specific financial data availability and completeness criteria.

## Data Analysis Technique

Quantitative analysis is performed using panel data regression, employing Ordinary Least Square (OLS) regression to test the model. The analysis includes tests for common, random, and fixed effects, along with classical assumption tests for normality, multicollinearity, heteroskedasticity, and autocorrelation. The t-tests and F-tests are conducted to assess the significance of individual variables and the overall model fit, respectively.

## FINDINGS AND ANALYSIS
### Descriptive Analysis

Table 1 presents the outcomes of the analysis using panel data from the Indonesia Stock Exchange for the period 2017-2022, focusing on the cosmetics and household goods subsector descriptively. This analysis was conducted using Eviews 12 on five sampled companies to observe financial performance, namely PT. Akasha Wira Internasional Tbk (ADES), PT. Kino Indonesia Tbk (KINO), PT. Martina Berto Tbk (MBTO)

**Table 1.** Descriptive Statistical Analysis

|  | X1_DAR | X2_CR | X3_IT | Y_ROA |
|---|---|---|---|---|
| Mean | 3654.567 | 28840.43 | 28971.60 | 73.00000 |
| Median | 3860.500 | 20966.50 | 31204.00 | 139.0000 |
| Maximum | 6720.000 | 102524.0 | 53857.00 | 2218.000 |
| Minimum | 1888.000 | 6166.000 | 7182.000 | -2095.000 |
| Std. Dev. | 1311.033 | 23604.13 | 13782.84 | 1089.285 |
| Skewness | 0.363643 | 1.609271 | -0.182882 | -0.388041 |
| Kurtosis | 2.346661 | 4.966233 | 1.820762 | 3.013671 |
|  |  |  |  |  |
| Jarque-Bera | 1.194747 | 17.78136 | 1.905482 | 0.753113 |
| Probability | 0.550255 | 0.000138 | 0.385682 | 0.686220 |
|  |  |  |  |  |
| Sum | 109637.0 | 865213.0 | 869148.0 | 2190.000 |
| Sum Sq. Dev. | 49845421 | 1.62E+10 | 5.51E+09 | 34409744 |
|  |  |  |  |  |
| Observations | 30 | 30 | 30 | 30 |

Source: Data processing using Eviews 12

Table 1 illustrates the descriptive statistics of consumer goods manufacturing companies' Debt to Assets Ratio. The minimum value is 0.1888000 (PT Akasha Wira Internasional Tbk), indicating a decrease or loss of assets. The maximum value is 0.6720000 (PT Kino Indonesia Tbk), indicating an increase or advancement in assets. Furthermore, the mean value is 0.3654567, with a standard deviation of 1311.033.

The minimum value is 0.6166000 (PT Martina Berto Tbk), indicating a decrease in the company's ability to meet current asset requirements. Conversely, the maximum value is 10.25240 (PT Mandom Indonesia Tbk), indicating an increase in the company's ability to meet current asset requirements.

The mean value is 28840.43, with a standard deviation of 23604.13.

The minimum value is 0.7182000 (PT Mustika Ratu Tbk), indicating a decrease in total inventory turnover. Conversely, the maximum value is 5.385700 (PT Martina Berto Tbk), indicating an increase in total inventory turnover. The mean value is 28971.60, with a standard deviation of 13782.84.

The minimum value is -0.2095000 (PT Martina Berto Tbk), indicating a decrease or loss in financial performance. Conversely, the maximum value is 0.2218000 (PT Akasha Wira Internasional Tbk), indicating an increase or improvement in financial performance. The mean value is 0.7300000, with a standard deviation of 1089.285.

## Results of Classic Assumption Tests

The Normality Test was conducted to assess whether the variables in the study follow a normal distribution. The results indicate that the probability value (0.040386) is less than 0.05, indicating that the data is not normally distributed (Figure 1). Therefore, the regression model used in this study must be considered something other than an appropriate regression model.
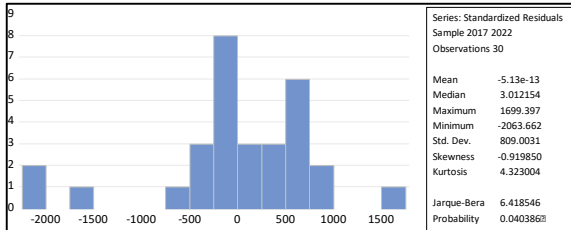


| Series: Standardized Residuals |
| Sample 2017 2022 |
| Observations 30 |
| Mean | -5.13e-13 |
| Median | 3.012154 |
| Maximum | 1699.397 |
| Minimum | -2063.662 |
| Std. Dev. | 809.0031 |
| Skewness | -0.919850 |
| Kurtosis | 4.323004 |
| Jarque-Bera | 6.418546 |
| Probability | 0.040386 |

**Figure 1.** The Normality Test
Source: Data processing using Eviews 12

Using the Durbin-Watson statistic, the Autocorrelation Test yielded a result of 1.141713 (Tabel 2). Since this value falls within the range between -2 and 2, it can be concluded that there is no autocorrelation among the variables in this study.

**Table 2.** The Autocorrelation Test

| | |
|---|---|
| Mean dependent var | 73.00000 |
| S.D. dependent var | 1089.285 |
| Akaike info criterion | 16.46225 |
| Schwarz criterion | 16.64907 |
| Hannan-Quinn criterion | 16.52202 |
| Durbin-Watson stat | 1.141713 |

Source: Data processing using Eviews 12

The Heteroskedasticity Test was performed to assess whether the variance of observations is heterogeneous or homogeneous. The results show that the probabilities of the DAR, CR, and IT variables are less than 0.05, indicating the presence of heteroskedasticity issues in the research data (Table 3).

**Table 3.** The Heteroskedasticity Test

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 2860.698 | 524.2481 | 5.456764 | 0.0000 |
| X1_DAR | -0.642224 | 0.093268 | -6.885781 | 0.0000 |
| X2_CR | -0.026464 | 0.003274 | -8.084044 | 0.0000 |
| X3_IT | 0.018657 | 0.008094 | 2.305037 | 0.0294 |

Source: Data processing using Eviews 12

The Multicollinearity Test, using the correlation values among the independent variables, indicates that there are no multicollinearity issues between X1 and X2, as well as between X1 and X3, as their correlation values are below 0.90, respectively (Table 4). Thus, it can be concluded that all independent variables in this regression model are free from multicollinearity issues.

**Table 4.** The Multicollinearity Test

| | X1_DAR | X2_CR | X3_IT |
|---|---|---|---|
| X1_DAR | 1.000000 | -0.729437 | 0.119256 |
| X2_CR | -0.729437 | 1.000000 | -0.054048 |
| X3_IT | 0.119256 | -0.054048 | 1.000000 |

Source: Data processing using Eviews 12

## Regression Estimation for Panel Data

Three models are utilized to estimate panel data regression: Common Effect Model, Fixed Effect Model, and Random Effect Model.

The Common Effect Model combines data over a time range and across various companies using the least squares method on panel data. The results indicate that the Debt to Assets Ratio (DAR), Current Ratio (CR), and Inventory Turnover (IT) variables have probabilities < 0.05, demonstrating significant influence on Return On Assets (ROA).

Table 5 indicates that the DAR variable has a probability value of 0.004 < 0.05, indicating that the DAR variable can significantly influence the ROA variable. Furthermore, the probability value of the CR variable is 0.0490 < 0.05, suggesting that the CR variable can significantly affect the ROA variable. As for the IT variable, the probability value is 0.0326 < 0.05, indicating that the IT variable can significantly impact the ROA variable. Therefore, the DAR, CR, and IT variables significantly affect ROA.

**Table 5.** Common Effect Model

| Dependent Variable: Y_ROA |
| Method: Panel Least Squares |
| Date: 01/04/24 Time: 17:54 |
| Sample: 2017 2022 |
| Periods included: 6 |
| Cross-sections included: 5 |
| Total panel (balanced) observations: 30 |

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 2539.737 | 922.3384 | 2.753584 | 0.0106 |
| X1_DAR | -0.722438 | 0.178135 | -4.055558 | 0.0004 |
| X2_CR | -0.020313 | 0.009838 | -2.064793 | 0.0490 |
| X3_IT | 0.026208 | 0.011608 | 2.257849 | 0.0326 |

| | | | |
|---|---|---|---|
| R-squared | 0.448409 | Mean dependent var | 73.00000 |
| Adjusted R-squared | 0.384764 | S.D. dependent var | 1089.285 |
| S.E. of regression | 854.4025 | Akaike info criterion | 16.46225 |
| Sum squared resid | 18980095 | Schwarz criterion | 16.64907 |
| Log likelihood | -242.9337 | Hannan-Quinn criter. | 16.52202 |
| F-statistic | 7.045467 | Durbin-Watson stat | 1.141713 |
| Prob(F-statistic) | 0.001278 | | |

Source: Data processing using Eviews 12

The Fixed Effect Model estimates the differences in intercepts for each individual with a fixed slope. Test results show that the DAR and CR variables significantly affect ROA, while IT does not have a significant effect.

Table 6 indicates that the DAR variable has a probability value of 0.0000 < 0.05, indicating that the DAR variable can significantly influence the ROA variable. Meanwhile, the CR variable has a probability value of 0.0004 < 0.05, suggesting that the CR variable cannot considerably affect the ROA variable. As for the IT variable has a probability value of 0.3024 > 0.05, indicating that the IT variable cannot

significantly impact the ROA variable. Therefore, only the DAR and CR variables significantly affect ROA.

**Table 6.** Fixed Effect Model

Dependent Variable: Y_ROA
Method: Panel EGLS (Cross-section weights)
Date: 01/04/24   Time: 18:31
Sample: 2017 2022
Periods included: 6
Cross-sections included: 5
Total panel (balanced) observations: 30
Linear estimation after one-step weighting matrix

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 2598.097 | 746.5079 | 3.480334 | 0.0021 |
| X1_DAR | -0.632012 | 0.106844 | -5.915295 | 0.0000 |
| X2_CR | -0.022773 | 0.005393 | -4.222783 | 0.0004 |
| X3_IT | 0.015236 | 0.014428 | 1.056018 | 0.3024 |

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

| | | | | |
|---|---|---|---|---|
| R-squared | 0.860041 | Mean dependent var | | 518.6344 |
| Adjusted R-squared | 0.815508 | S.D. dependent var | | 1560.922 |
| S.E. of regression | 610.4054 | Sum squared resid | | 8197084. |
| F-statistic | 19.31266 | Durbin-Watson stat | | 1.729360 |
| Prob(F-statistic) | 0.000000 | | | |

Unweighted Statistics

| | | | | |
|---|---|---|---|---|
| R-squared | 0.709881 | Mean dependent var | | 73.00000 |
| Sum squared resid | 9982910. | Durbin-Watson stat | | 1.929112 |

Source: Data processing using Eviews 12

The Random Effect Model estimates the relationships among potentially correlated panel data. Test results show that the DAR variable significantly affects ROA, while CR and IT do not have a significant effect.

**Table 7.** Random Effect Model

Dependent Variable: Y_ROA
Method: Panel EGLS (Cross-section random effects)
Date: 01/04/24   Time: 18:36
Sample: 2017 2022
Periods included: 6
Cross-sections included: 5
Total panel (balanced) observations: 30
Swamy and Arora estimator of component variances

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 1799.608 | 920.5310 | 1.954967 | 0.0614 |
| X1_DAR | -0.514954 | 0.158170 | -3.255704 | 0.0031 |
| X2_CR | -0.014070 | 0.011822 | -1.190141 | 0.2447 |
| X3_IT | 0.019368 | 0.014210 | 1.362968 | 0.1846 |

Effects Specification

| | | | S.D. | Rho |
|---|---|---|---|---|
| Cross-section random | | | 946.6244 | 0.6745 |
| Idiosyncratic random | | | 657.5786 | 0.3255 |

Weighted Statistics

| | | | | |
|---|---|---|---|---|
| R-squared | 0.317724 | Mean dependent var | | 19.91682 |
| Adjusted R-squared | 0.239000 | S.D. dependent var | | 722.3077 |
| S.E. of regression | 630.1074 | Sum squared resid | | 10322920 |
| F-statistic | 4.035916 | Durbin-Watson stat | | 1.803328 |
| Prob(F-statistic) | 0.017554 | | | |

Unweighted Statistics

| | | | | |
|---|---|---|---|---|
| R-squared | 0.413430 | Mean dependent var | | 73.00000 |
| Sum squared resid | 20183735 | Durbin-Watson stat | | 0.922308 |

Source: Data processing using Eviews 12

Table 7 indicates that the DAR variable has a probability value of 0.0031 < 0.05, indicating that the DAR variable can significantly influence the ROA variable. However, for the CR variable, the probability value is 0.2447 > 0.05, suggesting that the CR variable cannot significantly affect the ROA variable. Similarly, for the IT variable, the probability value is 0.1846 > 0.05, indicating that the IT variable cannot significantly impact the ROA variable. Therefore, only the DAR variable has a significant effect on ROA.

Model selection is conducted through the Chow test, Hausman test, and Lagrange Multiplier test. Based on the Chow test result, the Fixed Effect Model was selected, the Hausman test was selected for the Random Effect Model, and the Lagrange Multiplier test was selected for the Random Effect Model. Considering these results, this study ultimately employs the Random Effect Model as the selected model because it receives two out of three supports from the testing (see Table 8).

**Table 8.** Model Selection Test

| No. | Model Selection Test | Probability Value | Critical Value | Model Selection Decision |
|---|---|---|---|---|
| 1. | Chow test | 0.0004 | 0,05 | *Fixed Effect Model* |
| 2. | Hausman test | 0,8319 | 0,05 | *Random Effect Model* |
| 3. | *Lagrange Multiplier test* | 0.0033 | 0,05 | *Random Effect Model* |

Source: Data processing using Eviews 12

**Regression Analysis Results for Panel Data**

In this study's regression analysis of panel data, the Random Effect Model is utilized as the selected model, consistent with the results of previous model selection tests. The equation of the regression results using the Random Effect Model is presented in Table 9.

The F-test is conducted to ascertain whether the variables Debt to Assets Ratio (DAR), Current Ratio (CR), and Inventory Turnover (IT) collectively have a significant influence on the Return on Assets (ROA) variable. With a probability value of 0.001278 < 0.05, H0 is rejected, indicating that all three variables collectively affect ROA significantly.

The t-test is performed to assess the partial significance of each independent variable on the dependent variable. The Debt to Assets Ratio, Current Ratio, and Inventory Turnover variables individually have probability significance values of 0.0004, 0.0490, and 0.0326, all < 0.05. Therefore, it can be concluded that all three variables significantly affect the financial performance (ROA) of this study.

**Table 9.** Panel Data Regression Analysis

Dependent Variable: Y_ROA
Method: Panel Least Squares
Date: 01/04/24   Time: 18:54
Sample: 2017 2022
Periods included: 6
Cross-sections included: 5
Total panel (balanced) observations: 30

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 2539.737 | 922.3384 | 2.753584 | 0.0106 |
| X1_DAR | -0.722438 | 0.178135 | -4.055558 | 0.0004 |
| X2_CR | -0.020313 | 0.009838 | -2.064793 | 0.0490 |
| X3_IT | 0.026208 | 0.011608 | 2.257849 | 0.0326 |

| | | | | |
|---|---|---|---|---|
| R-squared | 0.448409 | Mean dependent var | | 73.00000 |
| Adjusted R-squared | 0.384764 | S.D. dependent var | | 1089.285 |
| S.E. of regression | 854.4025 | Akaike info criterion | | 16.46225 |
| Sum squared resid | 18980095 | Schwarz criterion | | 16.64907 |
| Log likelihood | -242.9337 | Hannan-Quinn criter. | | 16.52202 |
| F-statistic | 7.045467 | Durbin-Watson stat | | 1.141713 |
| Prob(F-statistic) | 0.001278 | | | |

Source: Data processing using Eviews 12

Thus, the test results in this research indicate that the Debt to Assets Ratio has a significant effect on financial performance, with a probability of $0.0004 < 0.05$, resulting in the rejection of H0 and acceptance of H1. This finding aligns with the study by Feronicha et al. (2017), which also confirms that DAR significantly impacts financial performance. This study suggests that an increase or advancement in company assets can provide positive capital, support company growth, and have a positive impact on financial performance.

The practical implications of this research suggest that company management may consider focusing on improving or managing company assets, especially the Debt-to-Assets Ratio (DAR). By understanding that DAR significantly influences financial performance, companies can take strategic steps to enhance their financial performance.

Practical recommendations from this research involve better monitoring and managing the company's asset structure and liabilities. Management may consider optimizing asset utilization in ways that support company growth and have a positive impact on financial performance. Additionally, companies can evaluate their debt policies to align them with achieving better financial performance.

Thus, this research contributes to our understanding of the importance of the Debt-to-Assets Ratio in the context of company financial performance, and its findings can help management make better strategic decisions to enhance their financial conditions.

Furthermore, the test results also indicate that the Current Ratio significantly affects financial performance, with a probability of $0.0490 < 0.05$, rejecting H0 and accepting H2. This result is consistent with the studies by Sitohang & Wulandari (2020) and Arisadi (2013), which concluded that CR significantly influences financial performance. The company's ability to manage its liquidity, especially in improving CR value, can positively impact financial

performance, support growth, and increase investor confidence.

The practical implications of this research suggest that company management can pay attention to and enhance liquidity management, particularly in terms of the Current Ratio (CR). By knowing that CR significantly influences financial performance, companies can take strategic steps to ensure adequate liquidity.

Increasing the CR value can be a primary focus in enhancing financial performance. Company management can consider policies that support increased CR value, such as optimizing inventory management, managing current liabilities, and ensuring healthy liquidity. This can positively impact the company's financial condition, support growth, and increase investor confidence.

Another practical implication is the importance of transparency and good communication regarding liquidity management to stakeholders. Understanding that CR significantly impacts financial performance, companies can use this information to build investor and other stakeholders' confidence. Transparency regarding liquidity can help create a positive perception of the company's financial condition.

Thus, the results of this research contribute to understanding the importance of the Current Ratio in the context of company financial performance. Its practical implications can assist management in making informed decisions to improve liquidity and the company's overall financial condition.

Moreover, the test results also indicate that Inventory Turnover significantly affects financial performance, with a probability of $0.0326 < 0.05$, rejecting H0 and accepting H3. This finding is in line with the study by Krisnandi et al. (2019), which stated that IT positively impacts financial performance. An efficient and good inventory turnover rate indicates optimal inventory management, prevents losses due to excess inventory, and supports profit growth. Thus, IT plays an important role in supporting a company's financial performance.

The practical implications of this research suggest that company management can focus on optimizing the level of inventory turnover or Inventory Turnover (IT) to enhance financial performance. By knowing that IT significantly influences financial performance, companies can take strategic steps to improve efficiency in their inventory management.

Companies need to understand that efficient inventory turnover not only creates better operational conditions but also supports profit growth. Management can take steps to improve efficiency in inventory management, such as improving supply chain processes, using more advanced technology, and implementing best practices in inventory management.

Another practical implication is monitoring and evaluating inventory policies implemented regularly. With an understanding that IT is crucial in supporting

financial performance, companies can conduct periodic.

## CONCLUSION

This study aimed to analyze the impact of the debt-to-asset ratio (DAR), Current Ratio (CR), and Inventory Turnover (IT) on the financial performance of manufacturing companies in the consumer goods sector listed on the Indonesia Stock Exchange (IDX). Through panel data analysis, several important findings were uncovered.

Debt to Asset Ratio (DAR) was found to significantly influence companies' financial performance (Return On Assets - ROA). A low DAR reflects a high level of equity and lower bankruptcy risk for the company. The practical recommendation is that company management should focus on managing or enhancing the company's assets, particularly by paying attention to DAR.

Similarly, the Current Ratio (CR) also demonstrated a significant influence on the financial performance (ROA) of companies. A favorable liquidity level can positively impact financial performance, especially in increasing the CR value. The practical recommendation is that company management needs to pay attention to and improve liquidity management, especially concerning CR.

Furthermore, Inventory Turnover (IT) also proved to significantly influence companies' financial performance (ROA). Efficient inventory turnover creates better operational conditions and supports profit growth. The practical recommendation is that company management focus on optimizing the level of inventory turnover to enhance financial performance.

The practical implications of these findings suggest that company management should consider improving or managing assets, liquidity, and inventory turnover. Regularly monitoring and evaluating the company's inventory policies are necessary to ensure efficiency and alignment with market conditions. Coordination between company departments is also crucial in optimizing inventory turnover and preventing excess or shortages.

In conclusion, this study contributes to understanding the relationship between financial ratios and the financial performance of manufacturing companies in the consumer goods sector. The results can assist management in making strategic decisions to improve the company's financial condition and support long-term growth.

## REFERENCES

Wolf, C. A., Stephenson, M. W., Knoblauch, W. A., & Novakovic, A. M. (2016). *Dairy Farm Financial Performance: Firm, Year, and Size Effects*.

Ahrendsen, B. L., & Katchova, A. L. (2012). Financial ratio analysis using ARMS data. *Agricultural Finance Review*, *72*(2), 262–272. https://doi.org/10.1108/00021461211250492

Arisadi, Y. C. (2013). *Pengaruh Ukuran Perusahaan, Umur Perusahaan, Current Ratio, Debt toEquity Ratio dan Fixed Asset to Total Asset Ratio terhadap KinerjaKeuangan pada Perusahaan Manufaktur di Bursa Efek Indonesia*.

Assenga, M. P., Aly, D., & Hussainey, K. (2018). The impact of board characteristics on the financial performance of Tanzanian firms. *Corporate Governance (Bingley)*, *18*(6), 1089–1106. https://doi.org/10.1108/CG-09-2016-0174

Ballou, R. H. (2000). Evaluating Inventory Management Performance Using a Turnover Curve. *International Journal of Physical Distribution and Logistics Management*, *30*(1), 72–85. https://doi.org/10.1108/09600030010307993

Britney, R. R. (1980). *Growth, Product Lines and Realistic Inventory Turns*.

Chan, T. K., & Abdul-Aziz, A. R. (2017). Financial Performance and Operating Strategies of Malaysian Property Development Companies During the Global Financial Crisis. *Journal of Financial Management of Property and Construction*, *22*(2), 174–191. https://doi.org/10.1108/JFMPC-02-2016-0009

Chen, L.-H., Liaw, S.-Y., & Chen, Y. S. (2001). *Using financial factors to investigate productivity: an empirical study in Taiwan*. http://www.emerald-library.com/ft

Dobbins, R. (1993). An Introduction to Financial Management. *Management Decision*, *31*(2), 5–110. https://doi.org/10.1108/00251749310031851

Dunk, A. S. (2005). Financial and Non-Financial Performance: The Influence of Quality of Information System Information, Corporate Environmental Integration, Product Innovation, and Product Quality. In *Advances in Management Accounting* (Vol. 14, pp. 91–114). https://doi.org/10.1016/S1474-7871(05)14004-0

Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Feronicha, A., Efendi, W., Sulaksono, S., & Wibowo, A. (2017). Sektor Keuangan Yang Terdaftar Di Bursa Efek Indonesia. *Journal of Applied Managerial Accounting*, *1*(2), 157–163.

Gadanakis, Y., Stefani, G., Lombardi, G. V., & Tiberti, M. (2020). The Impact of Financial Leverage on Farm Technical Efficiency During Periods of Price Instability. *Agricultural Finance Review*, *80*(1), 1–21. https://doi.org/10.1108/AFR-09-2018-0080

Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, *10*(2), 486–489. https://doi.org/10.5812/ijem.3505

Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. http://slims.umn.ac.id//index.php?p=show_detail&id=19545

Harahap, I. M., Septiani, I., & Endri, E. (2020). Effect of financial performance on firms' value of cable companies in Indonesia. *Accounting*, *6*(6), 1103–1110. https://doi.org/10.5267/j.ac.2020.7.008

Ho, C. T. B. (2004). Performance Evaluation of Australia's Major Banks. In *Asian Review of Accounting* (Vol. 12, Issue 1, pp. 19–33). https://doi.org/10.1108/eb060771

Iqbal, M., Khan, S., Ullah, S., & Zeb, A. (2016). *Effect of Liquidity and Capital Structure on Financial Performance: Evidence from banking Sector Effect of Liquidity and Capital Structure on Financial Performance: Evidence from banking Sector*.

Isaac, E. (2023). *Convenience and Purposive Sampling Techniques: Are they the Same?* www.seahipaj.org

Jones, S. (2005). *Financial Analysis: Applications to Australian Toll Road Entities*.

Kartika Prananingrum, D., Azis Muthalib, D., Irfandy Azis, M., & Rohansyah, M. (2018). *Effects of Return on Asset, Return On Equity, Earning Per Share on Corporate Value*. https://doi.org/10.9790/1813-0703010614

Katchova, A. L., & Enlow, S. J. (2013). Financial Performance of Publicly-Traded Agribusinesses. *Agricultural Finance Review*, *73*(1), 58–73. https://doi.org/10.1108/00021461311321311

Krisnandi, H., Awloedin, D. T., & Saulinda, S. (2019). *Pengaruh Current Ratio, Inventory Turnover, Debt to Equitu Ratio, dan Ukuran Perusahaan Terhadap Kinerja Keungan Perusahaan*.

Kropp, J. D., & Katchova, A. L. (2011). The effects of direct payments on liquidity and repayment capacity of beginning farmers. *Agricultural Finance Review*, *71*(3), 347–365. https://doi.org/10.1108/00021461111177611

Liu, C. M., O'Farrell, G., Wei, K. K., & Yao, L. J. (2013). Ratio analysis comparability between Chinese and Japanese firms. *Journal of Asia Business Studies*, *7*(2), 185–199. https://doi.org/10.1108/15587891311319468

Maisharoh, T., & Riyanto, S. (2020). Financial Statements Analysis In Measuring Financial Performance of PT. Mayora Indah Tbk, Period 2014-2018. In *Journal of Contemporary Information Technology, Management, and Accounting* (Vol. 1, Issue 2).

Mbona, R. M., & Yusheng, K. (2019). Financial Statement Analysis: Principal Component Analysis (PCA) Approach Case Study on China Telecoms Industry. *Asian Journal of Accounting Research*, *4*(2), 233–245. https://doi.org/10.1108/AJAR-05-2019-0037

Needles, B. E., Shigaev, A., Powers, M., & Frigo, M. L. (2010). Strategy and integrated financial ratio performance measures: A longitudinal multi-country study of high performance companies. *Studies in Managerial and Financial Accounting*, *20*, 211–252. https://doi.org/10.1108/S1479-3512(2010)0000020011

Neetij, & Bikash Thapa, R. (n.d.). *A Study on Purposive Sampling Method in Research*. http://study.com/academy/lesson/what-is-sampling-in-research-definition-methods-importance.html,

Ozgulbas, N., & Serhan Koyuncugil, A. (2006). Application of Data Mining Method for Financial Profiling. *Social Responsibility Journal*, *2*(3–4), 328–334. https://doi.org/10.1108/17471117200600010

Rani, N., Yadav, S. S., & Jain, P. K. (2015). Financial performance analysis of mergers and acquisitions: evidence from India. *International Journal of Commerce and Management*, *25*(4), 402–423. https://doi.org/10.1108/IJCoMA-11-2012-0075

Riduwan, & Koncoro, E. A. (2012). *Cara Menggunakan Dan Memakai Analisis Jalur (Path Analysis)*. Bandung: Alfabeta.

Schellhorn, C., & Sharma, R. (2013). Using the Rasch model to rank firms by managerial ability. *Managerial Finance*, *39*(3), 306–319. https://doi.org/10.1108/03074351311302818

Sekaran, U., & Bougie, R. (2016). *Research Methods for Business : a Skill-Building Approach* (7th ed.). United Kingdom: Wiley.

Sitohang, A. W., & Wulandari, B. (2020). Pengaruh Current Ratio, Debt To Equity Ratio, Earning Per Share, terhadap Kinerja Keuangan. *Journal of Education, Humaniora and Social Sciences (JEHSS)*, *3*(2), 577–585. https://doi.org/10.34007/jehss.v3i2.361

Subarjo, & Sari, F. W. (2017). *Analisis Turnover Terhadap Kinerja Keuangan Dengan Revenue Sebagai Variabel Moderasi (Studi Pada PT. Madukismo Yogyakarta Tbk)*.

Sugiyono. (2008). *Metode Penelitian Pendidikan : (pendekatan kuantitatif, kualitatif dan R & D)* (6th ed.). Bandung: Alfabeta.

Sunyoto, D. (2016). *Metodologi Penelitian Akuntansi*. Bandung: PT Refika Aditama Anggota Ikapi.

Suvvari, A., Raja Sethu Durai, S., & Goyari, P. (2019). Financial performance assessment using Grey relational analysis (GRA): An application to life insurance companies in India. *Grey Systems*, *9*(4), 502–516. https://doi.org/10.1108/GS-05-2019-0010

Syafitri, L. (2015). *Pengaruh Inventory Turnover Dan Total Asset Turnover Terhadap Profitabilitas Pada CV. Teluk Kenanga Ogan Ilir*.

Tikasari, N., & Surjandari, D. A. (2020). The Effect of Economic Value Added and Financial Performance on Stock Return. *Saudi Journal of Business and Management Studies*, *5*(6), 343–352. https://doi.org/10.36348/sjbms.2020.v05i06.005

Widarjono, A. (2007). *Ekonometrika: teori dan aplikasi untuk ekonomi dan bisnis* (2nd ed.). Yogyakarta: Ekonisia FE Universitas Islam Indonesia.

Widnyana, I. W., Wiksuana, I. G. B., Artini, L. G. S., & Sedana, I. B. P. (2020). Influence of Financial Architecture, Intangible Assets on Financial Performance and Corporate Value in The Indonesian Capital Market. *International Journal of Productivity and Performance Management*. https://doi.org/10.1108/IJPPM-06-2019-0307

Winand, M., Zintz, T., & Scheerder, J. (2012). A financial management tool for sport federations. *Sport, Business and Management: An International Journal*, *2*(3), 225–240. https://doi.org/10.1108/20426781211261539

Yuliara, I. M. (2016). *Regresi Linear Berganda*.