

## MEASUREMENT OF FINANCIAL PERFORMANCE IN ECONOMIC RENTABILITY IN MANUFACTURING COMPANIES

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### *ABSTRACT*

The intensity of competition in various industrial sectors is caused by the current economic condition. As a result, every entity needs to face intense competition in that industry. Improvement in financial performance becomes a factor used by every entity to compete. The size of a company that has worked effectively and efficiently is not always measured by high profits. However, the efficiency and effectiveness of a company's performance are more accurately measured through the comparison of profits with available resources. Therefore, the level of rentability of a company becomes a better benchmark in assessing its performance. This research is conducted with the aim of determining the relationship between financial ratios and economic rentability using a quantitative approach. The independent variables of this research are activity ratios, which consist of working capital turnover, inventory turnover, and receivable turnover, while the dependent variable of this research is economic rentability. The research was conducted from 2019 to 2021, and the data obtained used secondary data sourced from the companies' annual reports. The population in this study consists of manufacturing sector companies listed on the Indonesia Stock Exchange (IDX). The sample used consists of 78 companies selected using purposive sampling method. The results obtained do not support the influence of working capital turnover, inventory turnover, and receivable turnover variables on economic rentability in manufacturing companies. This is caused by several factors that contribute to it.

**Keywords** : Economic Rentability; Financial Performance; Inventory Turnover; Receivable Turnover; Working Capital Turnover.

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### I. INTRODUCTION

The Coordinating Ministry for Economic Affairs of the Republic of Indonesia (2021) revealed that the manufacturing sector is the largest contributor to the national GDP. The Ministry of Industry (2021) stated that the manufacturing industry continues to be the main pillar of national economic growth. In fact, for Indonesia, the manufacturing industry sector becomes the main driving force to emerge from a recession. In the fourth quarter of 2019, the performance of the manufacturing industry had a Prompt Manufacturing Index (PMI) from Bank Indonesia of 51.50%. In the fourth quarter of 2020, the performance of the manufacturing industry had a PMI from Bank Indonesia of

47.29% (B. Indonesia, 2021). This was caused by the significant impact of the Covid-19 pandemic in 2020 on various sectors, including the manufacturing sector, which was affected due to disruptions in the supply chain of raw materials caused by delays in the arrival of raw materials and shortages of raw materials, especially from China (Nainggolan, 2020). Meanwhile, in the fourth quarter of 2021, there was an improvement and it was in the expansion phase. PMI of Bank Indonesia was 50.17% (Komunikasi, 2022).

The tight influence of industrial competition is due to the current economic conditions. Therefore, intense competition in the industrial sector needs to be faced by

every entity (Awaloedin, Hasanudin, & Subekti, 2020). Improvement of financial performance of an entity becomes a factor utilized by every entity to be competitive. Adequacy of financial performance can be observed through financial statements. Financial ratios are a simple analysis often used in analyzing financial statements (Jati & Jannah, 2022). Activity ratio can indicate the level of effectiveness present in an entity (Sianturi, 2020).

An entity requires working capital, which is used to finance its operational activities. Working capital turnover can be used to assess the efficiency of working capital. Working capital turnover occurs when cash is invested in working capital elements until the cash returns (Widiyanti, Susanti, & Mahmudah, 2022). The most active asset in a company's operational activities is inventory. Investment in inventory aims to maximize the investment in inventory and maintain its maximum level (Runtunuwu, Alexander, & Wokas, 2017). According to Kasmir (2017), inventory turnover is indicated by the speed at which sales of merchandise inventory are replaced. The presence of receivables in an entity is caused by the entity conducting sales on credit (Ermaini, Suryani, Sari, & Hafidzi, 2021). Management of receivables of an entity relates to receivable turnover. The depiction of an entity's efficiency in managing receivables is accomplished by dividing sales by the average receivables. Receivable turnover is indicated by the speed at which those receivables are converted back into cash (Alie & Kurniati, 2018).

Measure of a company that has worked effectively and efficiently is not always measured through high profits. Efficiency and

effectiveness of an entity's performance are better measured by comparing profits to the capital or assets used to generate those profits. Thus, the level of rentability of an entity becomes a better benchmark for evaluating the entity's performance (Budiasa, Herawati, & Musmini, 2014).

The theory applied in this research is Signalling Theory. Signalling Theory explains the assessment of financial performance in an entity. Management communicates signals of success or failure to the owners in signaling theory (Novitasari, Endiana, & Arizona, 2020). Because this research evaluates financial performance, it can provide insights into the financial performance of an entity.

The results of the research conducted by Suryani (2016) indicate that receivable turnover and inventory turnover have a significant impact on economic rentability. Unlike the study conducted by Runtunuwu et al (2017), which reveals that inventory turnover has a significant impact while receivable turnover does not have a significant impact on economic rentability, Study conducted by Prabasini & Damayanthi (2019) obtained results indicating that working capital turnover has a significant and positive impact on economic rentability.

Due to differences in measurement approaches and variations in research subjects, diverse results are obtained regarding the influence on economic rentability. So research on financial performance and its impact on economic rentability is still needed, especially during times of a pandemic and expansion phases. Furthermore, the manufacturing sector continues to be a key pillar of national

economic growth and serves as a primary driver to emerge from recession.

## II. RESEARCH METHOD

Research is conducted using quantitative methods and utilizing secondary data sources. Data used in this study is sourced from the annual reports of manufacturing sector companies listed on the IDX during the study period, which is 2019-2021. Annual reports were obtained through the website (www.idx.co.id) and the official websites of the respective companies. Population in this study consists of manufacturing sector companies listed on the IDX. The data collection method used is purposive sampling. Purposive sampling means that samples are taken from a population with specific criteria (Sugiyono 2013:85). The criteria used to determine the samples in this study are as follows :

**Table 1. Sample Determination Variable**

No.	Sample Selection Criteria	Amount
1	Manufacturing entities listed on the IDX successively in the years 2019-2021	182
2	Manufacturing entities that did not publish complete annual reports in the years 2019-2021.	(15)
3	Manufacturing entities that experienced losses in the years 2019-2021.	(89)
<b>Total Samples Fulfil Criteria</b>		<b>78</b>
The period used is 3 years (78 X 3).		234
Data Outlier		5
<b>Total Samples Used in the Study.</b>		<b>229</b>

Measurement used in this study :

**Table 2: Research Variables and Measurements**

Variable	Measurements
Economic Rentability (Y)	$\frac{\text{Profit}}{\text{Total Equity}}$

WCT (X <sub>1</sub> )	$\frac{\text{Sales}}{(\text{Current Assets} - \text{Current Liabilities})}$
ITO (X <sub>2</sub> )	$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$
RTO (X <sub>3</sub> )	$\frac{\text{Sales}}{\text{Average Receivables}}$

## III. RESULTS AND DISCUSSION

### Descriptive Statistic

The values of descriptive statistical analysis are presented in the table below:

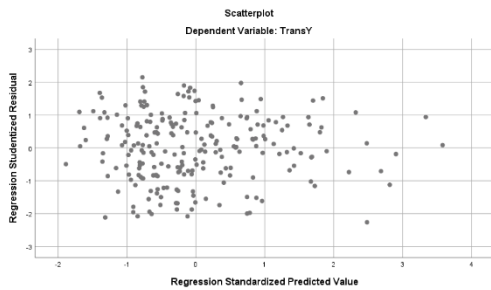
**Table 3: Descriptive Statistic**

	N	Min	Max	Mean	Std. Deviation
Y	229	.11	.62	.3809	.11684
X <sub>1</sub>	229	.73	11.61	2.4221	1.64239
X <sub>2</sub>	229	.93	5.49	2.1534	.65030
X <sub>3</sub>	229	1.36	7.83	2.7380	.95975

*Source : SPSS Output*

### Assumption Test Analysis

Before conducting multiple linear regression analysis, it is necessary to perform assumption tests which need to be fulfilled, namely the assumptions of classical tests. Some of the classical assumption tests include the normality test. In this study, the Kolmogorov-Smirnov test was used with a value of 0.082, and the significance value is  $\geq 0.05$ . The test for multicollinearity uses the values of VIF and tolerance. The tolerance value is 0.909, and the VIF value for X<sub>1</sub> is 1.101. For X<sub>2</sub>, the tolerance value is 0.903, and the VIF value is 1.107. For X<sub>3</sub>, the tolerance value is 0.988, and the VIF value is 1.013. The tolerance values for all variables are  $\geq 0.10$ , and the VIF values are  $\leq 10.00$ . The autocorrelation test is conducted using the runs test with a value of 0.643, which is  $\geq 0.05$ . Heteroskedasticity test is conducted using a scatterplot, which can be seen in the figure below:



**Figure 1 Scatterplot test result**  
 Source : SPSS Output

Based on the test results, it can be stated that the data has passed the classical assumption tests.

### Hypothesis Testing Results

#### 1. Coefficient of Determination ( $R^2$ )

**Table 4: Coefficient of Determination**

Dependent	R	R Square	Adjusted R Square
Economic Rentability	159 <sup>a</sup>	.025	.012

Source : SPSS Output

Based on the above test results, the  $R^2$  value is 0.025. Therefore, this can inform that the variables of working capital turnover ( $X_1$ ), inventory turnover ( $X_2$ ), and receivable turnover ( $X_3$ ) can explain the variable of economic rentability by 2.5%. While the remaining 97.5% is explained by other independent variables not included in the study.

#### 2. Simultaneous Significance Test (F-test)

**Table 5: Simultaneous Significance Test**

Dependent	F	Sig.
Economic Rentability	1.935	.125 <sup>b</sup>

Source : SPSS Output

Based on the test results, the F-value is 1.935, and the significance value is 0.125, where this significance value is  $\geq 0.05$ . Therefore, it can be stated that the independent variables both simultaneously and significantly, do not have an influence on economic rentability.

### 3. Partial Significance Test (T-test)

**Table 6: Partial Significance Test**

Model	t	Sig.
(Constant)	9.115	.000
$X_1$	-.234	.815
$X_2$	1.417	.158
$X_3$	1.788	.075

Source : SPSS Output

Based on the test results, the significance value for each independent variable is as follows: working capital turnover ( $X_1$ ) is 0.815, inventory turnover ( $X_2$ ) is 0.158, and receivable turnover ( $X_3$ ) is 0.075. Therefore, it can be concluded that the independent variables do not have a partial influence on economic rentability (Y). This is because the significance values of the independent variables are  $\geq 0.05$ .

### Discussion

#### 1. Influence of Working Capital Turnover on Economic Rentability

Hypothesis in this study states that working capital turnover has an influence on economic rentability. Based on the test results, it is evident that there is no support for the influence between the working capital turnover variable and economic rentability. This is indicated by the significance value of 0.815, where this value is  $\geq 0.05$ . Effectiveness of an entity in managing its working capital can be observed through working capital turnover. The amount of invested working capital is influenced by the speed or slowness of working capital turnover (Wasundari & Suriani, 2021). Based on the testing, the result indicates that there is no support for the influence of working capital turnover on economic rentability. This is due to the low working capital turnover (Iskandar, DP, & Darlis, 2014). In addition, in a sluggish economic condition, overall market demand

can decrease. This leads to a decrease in sales volume, resulting in reduced profits and impacting economic rentability.

If not supporting the influence of working capital turnover on economic rentability, the signals sent may become less relevant or not provide an accurate depiction of the company's financial health. Signaling theory does not only focus on a single indicator. Therefore, it can be concluded that working capital turnover supports the signaling theory, even though it does not affect rentability. However, other factors that serve as potential signals can still influence the market's perception of the company.

The results of this study align with the research made by Chikmawati & Yuniningsih (2021), Efriyenti (2018), Based on these two research, it is stated that working capital turnover does not have an influence on economic rentability.

## **2. Influence of Inventory Turnover on Economic Rentability**

Hypothesis in this study states that inventory turnover has an influence on economic rentability. Based on the test results, it indicates that there is no support for the influence of the inventory turnover variable on economic rentability. This is indicated by the significance value of 0.158, where this value is  $\geq 0.05$ . According to Murhadi (2013:59), inventory turnover is useful for identifying the efficiency of an entity in processing and managing its inventory. According to Kasmir (2015), if the inventory turnover rate is high, the level of risk that will occur becomes lower. Cost of maintenance, price reductions, changes in consumer preferences, and price decreases become the risks that will occur.

Based on the test results in this study, in line with the theory presented by Kieso et al (2007), an increase in inventory serves as an indication of potential profit decrease. Ermaini et al (2021) state that company inventory consists of damaged or obsolete goods, which may not be sold at profitable prices and can affect economic rentability. Furthermore, the inventory turnover rate fluctuates. The nature of the goods, location, and type of company are significant factors in the inventory turnover rate. The low inventory turnover rate is caused by overinvestment or overstocking in inventory.

In terms of inventory turnover, the rate and speed of inventory turnover can serve as signals for company stakeholders. If not supporting the correlation between inventory turnover and economic rentability, the signals sent do not provide an accurate depiction of the company's performance. However, signaling theory does not solely rely on a single variable. Signaling theory involves the use of various signals and information that collectively provide a more comprehensive picture of the company's performance. Therefore, if inventory turnover does not provide a strong signal about company performance, the company can utilize other signals that are more meaningful and relevant.

The results of this study are in line with the research conducted by Sitanggang & Ruzikna (2020), Asniwati et al (2021), Sherly & Taudlikhul Afkar (2021), which obtained results that inventory turnover does not have an influence on economic rentability.

## **3. Influence of Receivable Turnover on Economic Rentability**

Hypothesis of this study states that receivable turnover has an influence on

economic rentability. Based on the test results, it indicates that there is no support for the influence of the receivable turnover variable on economic rentability. This is indicated by the significance value of 0.075, where this value is  $\geq 0.05$ . Receivable turnover measures how long receivables are converted back into cash within a specific period (Kasmir, 2017). Receivable turnover is a ratio that indicates a company's success in collecting receivables from customers (Barus, Sudjana, & Sulasmiyati, 2017).

The reason for not supporting the influence of the receivable turnover variable on rentability is the low level of receivable turnover. The low level of receivable turnover is evident in several entities. Every industry has different characteristics in terms of sales cycles and the time required to collect receivables, or it can be said that the receivable turnover period depends on the length of the time requirement specified in credit payment terms (Runtunuwu et al., 2017). These time requirements result in cash collection taking a long time, and credit payment terms can affect the level of receivable turnover.

Signaling theory and receivable turnover are two principles related to the financial performance of a company. Signaling theory can influence stakeholders' perception of the quality of receivables and the company's receivable management policies. Although not supporting the influence of receivable turnover on economic rentability, there are other factors that can affect stakeholders' perceptions. In a comprehensive assessment of company performance, other stronger signals and other factors influencing

rentability can still remain important considerations.

The results of this study are consistent with research conducted by Athalia et al (2023), Alie & Kurniati (2018), Runtunuwu et al (2017), revealing that receivable turnover does not have a relationship with economic rentability.

#### **IV. CONCLUSION**

This study aims to understand the influence of financial performance on the economic rentability of manufacturing sector entities listed on the IDX. Based on the results of hypothesis testing and the discussion of the conducted analysis, it can be concluded that the data in this study do not support the influence of working capital turnover, inventory turnover, and receivable turnover on economic rentability. This is due to several factors such as the low working capital turnover and receivable turnover in manufacturing sector companies. Furthermore, there are still other contributing factors. Consistent with the results of the conducted observations, this study has limitations in the research data used. The suggestion given for further research is to be conducted in other sectors, such as the banking sector, where the Chairman of the BPRS Compartment of the Indonesian Islamic Banks Association (Asbisindo) (2020) stated that rentability issues arose in the third quarter of 2020 (Puspaningtyas, 2020).

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