# THE EFFECT OF WORKING CAPITAL POLICY ON PROFITABILITY (STUDY OF MANUFACTURING COMPANIES LISTED IN THE INDONESIA STOCK EXCHANGE)

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## Abstract

This study examines the causal relationship between the probability of a company's failure in generating profitability, because there is a risk and return trade-off from a working capital management policy. The probability of failure of company management in making financial policies for an investment in current assets and sources of financing current liabilities. Analysis technique, using Smart PLS3. The unit of analysis is 80 manufacturing industry companies listed on the Indonesia Stock Exchange from 2010-2021, using panel data, namely time series and cross-sectional data with a total of observations of 960 financial reports.

The findings of this study prove that working capital management policies have a significant effect on company profitability. Current asset turnover, current asset to total asset ratio, age of trade payables and taxes payable, ratio of cash to total current assets have a positive relationship with ROA and ROE. Meanwhile, Age of accounts receivable, ratio of inventory to total current assets, current asset to total asset ratio, and Cash conversion cycle have a negative relationship with ROA and ROE. This research is expected to contribute to the development of financial management science, particularly working capital management policies as a source of value creation, ensuring sufficient working capital to maintain financial stability and profit growth that ensures financial performance remains in a healthy condition.

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#### 1. Introduction

The main goal of company management is to increase shareholder wealth which is usually a serious concern to obtain profits that add to the value of the company as an indicator of shareholder wealth. Every financial policy or decision must increase shareholder wealth through dividends and capital gains. One of the policies or financial decisions is the investment policy on working capital. The company's working capital policy determines the level of current assets and current liabilities that must be maintained by management (Van-Horne & Wachowicz, 2008).

Working capital is the money needed by a company for daily operations, which is described as an investment in current assets and the use of current liabilities to fund part of the investment (Charitou et al., 2010). Management of current assets and current liabilities is important in creating value for shareholders (Nazir & Afza, 2009); (Shin & Soenen, 1998). If a company can minimize investment in current assets that generate funds can be invested in project value creation, thereby increasing the company's growth opportunities and returns for shareholders (Eramus, 2010); (Mohamad & Saad, 2010).

Filbeck & Krueger (2005) show management can also face liquidity problems due to lack of investment in working capital, where the ability of financial managers to effectively manage receivables, inventories, and payables has a significant impact on business success. If the capital invested in the form of cash, accounts receivable, inventory or not is sufficient, the company may experience difficulties in carrying out daily business operations (Charitou et al., 2010); (Nazir & Afza, 2009). This can result in decreased sales and ultimately decreased profitability (Deloof, 2003); (Charitou et al., 2010). Smith (1980) emphasizes the trade-off between liquidity and profitability, working capital management can play an important role not only in profitability and risk, but also in firm value Napompech (2012).

Working capital management by managing the company's short-term financing and investment decisions, however, working capital management also directly affects the company's liquidity which is very important for the smooth running of business units (Sharma & Kumar, 2011). Efficiency in working capital management is very important, especially for production companies because it accounts for more than half of the total assets and

directly affects the profitability and liquidity of the company (Raheman & Nasr, 2007). Working capital management procedures can also lead to bankruptcy, although profitability may continue to be positive (Samiloglu & Demirgunes, 2008). Excessive levels of current assets can easily result in a firm's realized return on investment (Raheman & Nasr, 2007)

Working capital management by managing the company's short-term financing and investment decisions, however, working capital management also directly affects the company's liquidity which is very important for the smooth running of business units (Sharma & Kumar, 2011). Decisions about increasing profitability tend to involve increasing risk, and decisions about reducing risks may result in decreasing profitability (Garcia-Turuel & Martininez-Solano, 2007).

A measure of working capital management is the cash conversion cycle, which is the average number of days from the company paying suppliers to the day it receives cash from product sales (Deloof, 2003); (Lazaridis & Tryfonidis, 2006); (Garcia-Turuel & Martininez-Solano, 2007); (Raheman & Nasr, 2007). The cash conversion cycle means that there is more time between disbursing and withdrawing cash (Deloof, 2003); (Charitou et al., 2010). Previous research has used the cash conversion cycle as a measure of working capital management to analyze whether reducing the time allowed for this cycle has a positive or negative effect on firm profitability (Deloof, 2003); (Lazaridis & Tryfonidis, 2006); (Garcia-Turuel & Martininez-Solano, 2007); (Charitou et al., 2010); (Abuzayed, 2012); Napompech (2012). Overall empirical evidence related to capital management and profitability has been proven by the fact that managers can create value for shareholders by shortening the cash conversion cycle in a rational amount of time (Deloof, 2003); (Lazaridis & Tryfonidis, 2006); (Raheman & Nasr, 2007); (Nazir & Afza, 2009); (Banos-Caballero et al., 2010); Napompech (2012).

#### 2. Literature Review

#### 2.1 Working Capital Policy

Working capital management policies are related to investment decisions and financing of the company's current assets and company policies that can determine company performance (Nazir & Afza, 2009). Investment decisions and current asset financing can be approached in three ways, such as conservative, moderate and aggressive.

These strategies are mutually exclusive and companies choose one alternative based on its merits (Adam et al., 2017); (Cornelius & Jumono, 2021). Investment policy is a financial decision about which assets a company should buy. Short-term investment policy can be seen in the ratio of current assets to total assets measuring investment policy. Financing policy can be seen in the ratio of current liabilities to total assets measuring financing policy. Short-term liabilities are a desirable source of financing because short-term debt is less expensive than long-term liabilities. Funding decisions are closely related to the capital structure that will be formed and have implications for the cost of capital which is the most important part in forming company value (Cornelius & Jumono, 2021).

# 2.2 Working Capital

The concept of Working Capital includes Current Assets and Current Liabilities. Total current assets constitutes "Gross Working Capital" and is also referred to as circulating capital in the total current assets and total current liabilities currently operating in the company. "Net Working Capital" is the difference between the current assets and current liabilities or total current assets minus total current liabilities (Chhapra & Naqvi, 2010). Working capital management is the management of current assets such as cash, securities, accounts receivable, and inventories (Van-Horne & Wachowicz, 2004). Working capital management as a rule adjusts and manages the balance between current assets and current liabilities of a company so that it can fulfill obligations that are due soon and fixed assets are well served (Osisioma, 1997).

The main objective of working capital management is to ensure the maintenance of working capital levels in such a way that they are not excessive. Management needs to ensure that the amount of capital is not only sufficient to cover current liabilities but also a reasonable margin for day-to-day operational needs. The main sources of working capital are trade credit, bank credit and short-term non-bank loans; and long-term sources, namely ordinary share capital (equity), preference share capital and other long-term loans. Management ensures that the desired amount of working capital from each component of working capital is available to the company. Efficient working capital management involves managing short-term assets and short-term liabilities in a way that provides a balance between eliminating the potential inability to cope with short-term debt and avoiding unnecessary or excessive amounts of investment in current assets that exceed actual needs (Asaduzzaman & Chowdhury, 2014).

#### 2.3 Short Term Debt Management

Accounts payable management is a source of short-term finance along with accrued expenses and deferred income. Trade credit can take the form of a note payable or a note payable. Trade credit is a

spontaneous source of finance and relatively easy to obtain compared to other negotiated sources of finance (Pandy, 2005). Stephen (2012) argues that most of the debt depends on the company's purchases which in turn will depend on the volume of production. Whether or not the decision to take a trade discount, or extend accounts payable or not, all decisions should be based on an analysis of the costs and benefits of a company's credit policy in relation to the company's profitability and liquidity.

Deloof (2003) argues that whether a firm should take advantage of trade discounts or not depends on the trade-offs involved. If the discount is taken, there is the benefit of fewer cash outflows but the credit extended over the discount period is lost. If the discount is not taken, credit is available for an extended period but the company pays again. The opportunity costs of trade credit must be compared with the costs of other sources of credit. The optimal level of working capital can be achieved by considering the cost aspect of holding current assets. There are two types of costs associated with holding current asset flow levels. These costs are liquidity costs and costs incurred due to illiquidity (Pandy, 2005). Maintaining a balance between liquidity and liquidity costs to determine the optimal level of working capital.

#### 2.4 Profitability

Profitability is the company's ability to obtain profit from product sales as a result of the investment that has been made by the company. Profitability is an important factor for the sustainable development of a company. Companies that are unable to generate profits will find it difficult to survive and are unable to expand their business activities and also have difficulty obtaining external sources of funding. Shareholders and creditors will be reluctant to invest in companies experiencing financial difficulties. Another problem is that the company is unable to pay dividends. The higher the profitability ratio indicates the company's ability to generate better profits. Companies that have high profitability and financial performance indicate success in mobilizing all potential economic resources they have to increase growth and company value. Financial performance is a financial achievement that shows a company's ability to manage assets to generate profit (Data, 2019).

#### 3. Research Methods

The sampling method used in this study was multi-stage sampling, namely purposive sampling, sampling where the researcher has certain criteria or goals for the sample to be studied. This research uses 80 manufacturing industry companies listed on the Indonesia Stock Exchange as a unit of analysis for 12 years, namely 2010-2021, using panel data, namely time series and cross-sectional data, with a total of observations of 80 x 12 years = 960 financial reports. The population in this study were 182 manufacturing companies on the Indonesia Stock Exchange, with observation periods from 2010 to 2021. The population and sample criteria used in this study are as follows:

- 1) Companies with the type of manufacturing industry according to the classification of the Indonesian Capital Market Directory (ICMD). This is done with the aim of avoiding any bias caused by industry differences.
- 2) Companies listed on the IDX during observations from 2010 to 2021.
- 3) The company publishes financial reports continuously during the study period, namely as of December 31 for the 2010 financial year to December 31 for the 2021 financial year. The population and sample of this study match the criteria as shown in table 1, as follows:

| Table 1. Criteria for | Manufacturing Comp       | anies Registered | on the | Indonesia | Stock | Exchange | per |
|-----------------------|--------------------------|------------------|--------|-----------|-------|----------|-----|
| Industrial Sector     | that is used as the Rese | arch Population  |        |           |       |          |     |

| No    | Industrial Sector          | Manufacturing Companies<br>Listed on the Indonesia Stock | Does not fit<br>the criteria | According to the criteria |
|-------|----------------------------|--|------------------------------|---------------------------|
|       |                            | Exchange   |                              |                           |
| 1     | Cement                     | 6  | 4                            | 2                         |
| 2     | Ceramics, glass, porcelain | 7  | 3                            | 4                         |
| 3     | Metal dan allied products  | 17   | 10                           | 7                         |
| 4     | Chemicals                  | 14   | 9                            | 5                         |
| 5     | Plastics & packaging       | 14   | 7                            | 7                         |
| 6     | Animal feed                | 5  | 1                            | 4                         |
| 7     | Wood industries            | 4  | 4                            | 0                         |
| 8     | Pulp & paper               | 9  | 5                            | 4                         |
| 9     | Machinry dan heavy         | 5  | 5                            | 0                         |
|       | equipment                  |  |                              |                           |
| 10    | Automotive dan components  | 13   | 2                            | 11                        |
| 11    | Textile & garment          | 20   | 16                           | 4                         |
| 12    | Footwear                   | 2  | 1                            | 1                         |
| 13    | Cable                      | 7  | 2                            | 5                         |
| 14    | Electronics                | 4  | 4                            | 0                         |
| 15    | Food dan beverages         | 21   | 8                            | 13                        |
| 16    | Tobacco manufacturers      | 5  | 3                            | 2                         |
| 17    | Pharmaceuticals            | 11   | 5                            | 6                         |
| 18    | Cosmetic dan household     | 7  | 4                            | 3                         |
| 19    | Houseware                  | 6  | 4                            | 2                         |
| 20    | Other                      | 5  | 5                            | 0                         |
| Total | l                          | 182  | 102                          | 80                        |

Source: Indonesia Stock Exchange on the website http://www.idx.co.id, processed in 2022.

# **Operational Definition of Research Variables**

This study has 2 variables, namely: working capital management policies and company profitability. Details of research variable indicators and data sources are presented in table 2, below:

# Table 2. Classification of Research Variables and Data Sources

| No | Research<br>variable  |                | Indicator  | Data source                     |
|----|-----------------------|----------------|--|---------------------------------|
| 1  | Working               | X1.1           | Ratio of cash to total current assets (CsR)        | IDX company                     |
|    | Capital<br>Management | X1.2           | Age of accounts receivable (AR)                    | financial report<br>through the |
|    | Policy                | X1.3           | Ratio of inventory to total current assets (RITCA) | website                         |
|    |                       | X1.4           | Current asset to total asset ratio (CATAR)         | http://www.idx.co.              |
|    |                       | X1.5           | Current asset turnover (CATO)                      | id                              |
|    |                       | X1.6           | Cash conversion cycle (CCC)                        | ]                               |
|    |                       | X1.7           | Age of trade payables and taxes payable (ATTP)     |                                 |
| 2  | Profitability         | Y1             | Retrun On Asset                                    |                                 |
|    |                       | Y <sub>2</sub> | Return On Equity                                   |                                 |

Source: developed for this research (2022)

#### 3.1.2 Profitability Variable

Profitability is a measure of a company's ability to generate profits from all company activities by utilizing all of its assets. Profitability is measured by return on assets (ROA) reflecting the efficiency and effectiveness of management in operating the assets owned to earn profit (Data, 2019). Return on assets is calculated by the formula, as follows:

# Return on assets = $\frac{Earnig after tax}{assets}$

Associated with company value, means that high profitability indicates high financial performance indicating high quality of the company, if conveyed to the market, the market will give high value to the company's shares, conversely if low financial performance indicates low quality, and will be valued low by the market . Investors can assess the efficiency and effectiveness of management, especially if the decision is measured through net income for dividends for shareholders. This profitability variable is measured through the level of net income for return on equity (ROE) which reflects management's ability to achieve profits for shareholders (Data, 2019). Return on equity is calculated by the formula, as follows:

Return on equity 
$$= \frac{Earnig}{Equity}$$

#### 3.2 Data Analysis Methods

Descriptive statistical analysis aims to describe the data that has been collected as it is without intending to draw general conclusions or generalizations. The data described is in the form of a minimum value, maximum value and average value of each indicator, the aim is to see the trend of development of the value of each indicator in the company's financial ratios.

Inferential statistical analysis to test the research hypothesis. Inferential statistical analysis in this study uses an equation model with an approach (PLS). The (PLS) approach is variance based, is a predictive model, and can be used to confirm theories with empirical data. Quantitative data analysis sourced from secondary data begins with structural equation modeling of the Partial Least Square (PLS) approach. The research latent variable is a construct that is formed (formative) by its indicators called formative indicators. Formative constructs can be solved by modeling structural equations based on variance, namely PLS. Steps for testing an empirical model based on Smart PLS online at Boenningstedt: SmartPLSGmbH, http://www.smartpls.com developed by Ringle et al., (2015). Analysis with PLS applies two important stages, namely the measurement model and structural model. The data in the measurement model is evaluated to determine its validity and reliability. Part of the measurement model stage includes: (1) Individual loading of each question item, (2) Internal composite reliability (ICR), (3) Arverage variance external extractd (AVE), (4) Discriminant validity (Esposito et al., 2010). If the data meets the requirements in the measurement model, the next step is to evaluate the structural model. In the structural model testing the hypothesis that the results show significance; (1) Path coefficients (standardized beta), (2) t-Statictics, (3) R-Squared value (Esposito et al., 2010); (Eq & Wijaya, 2012).

Some of the requirements that must be met in the procedure for processing data using path analysis can be stated as follows: (1) the relationship between variables is linear and additive; (2) all residual variables are uncorrelated (no multicollinearity); (3) the pattern of relationship between variables is recursive, namely the causal relationship is unidirectional; not reciprocal; and (4) the level of measurement of all variables at least the interval.

#### **3.2.1 Model Evaluation**

The outer model measurement model with formative indicators is evaluated based on its substantive content, namely by comparing the magnitude of the outer weight and outer loadings, seeing the significance of the weight size, using the t-statistic test and the P-value obtained through bootstrapping. The structural model or inner model is evaluated by looking at the percentage of variance described, namely R2 for the dependent latent construct using the Stoner-Geisser q Square test (q2), also by looking at the size of the structural path coefficient. The stability of this estimate is evaluated using the t-statistic test obtained through bootstrapping. Model evaluation consists of three stages, namely, evaluation of the outer model measurement model, the inner model measurement model and hypothesis testing. All latent variables in this dissertation use the measurement of the formative indicator model, which assumes that the indicators do not correlate with each other, so internal reliability measures are required for consistency and validation. So to test the validity and reliability of latent variables, only emphasizing the nimological or criterion related validity.

#### **3.2.2 Evaluation of the Inner Model**

The goodness of fit model is measured using the dependent latent variable R2 with the same interpretation as the regression; q-square predictive relevance for structural models, measures how well the observed values are produced by the model as well as the parameter estimates. The value of  $p \le 0.05$  indicates the model shows predictive relevance, on the other hand  $P \le 0.05$  means the model lacks predictive relevance.

Hypothesis testing was carried out using the bootstrapping resampling method using smartPLS3 software which can be accessed Boenningstedt: SmartPLS GmbH, http://www.smartpls.com developed by Ringle et al., (2015). If the data meets the requirements in the measurement model, the next step is to evaluate the structural model. In the structural model testing the hypothesis that the results show significance (see bootstrapping results); (1) Path coefficients (standardized beta), (2) t-Staticics, (3) P-value, (4) R-Squared value (Esposito et al., 2010). The measurement criteria needed to accept or reject the research hypothesis are guided by the level of significance of the loading factor or path coefficient which is based on the P-value, considered significant if the value of  $P \le 0.05$ , Solimun (2008) suggests that the test is done by t test, when a P value  $\le 0.05$  (alpha 5%) is

obtained, it is concluded that it is significant and vice versa. If the results of the outer model test are significant, it means that the indicator can be viewed as an instrument for measuring latent variables. Meanwhile, if the test results on the inner model are significant, it means that there is a significant effect of latent variables on other latent variables, and can be generalized to the study population.

Quantitative data analysis sourced from secondary data begins with structural equation modeling of the partial least squares (PLS) approach. The research latent variable is a construct that is formed (formative) by its indicators called formative indicators. Formative constructs can be solved by modeling structural equations based on variants, namely Smart PLS (Solimun, 2008).

The steps for testing the empirical research model based on Smart PLS software (Solimun, 2008), (Eq & Wijaya, 2012), and online software at www. Smartpls.de version 3 developed by the Institute of Operations Management and Organization University of Hamburg Germany). Analysis with PLS applies two important stages, namely the measurement model and structural model. The data in the measurement model is evaluated to determine its validity and reliability. Part of the measurement model stage includes:

(1) Individual loading of each question item.

(2) Internal composite reliability (ICR).

(3) Average variance external extractd (AVE).

(4) Desciminant validity (Esposito et al., 2010).

If the data meets the requirements in the measurement model, the next step is to evaluate the structural model. In the structural model testing the hypothesis that the results show significance;

- (1) Path coefficients (standardized beta).
- (2) t-Statistics.
- (3) R-Squared value (Esposito et al., 2010).

Some of the requirements that must be met in the procedure for processing data using path analysis can be stated as follows: (1) the relationship between variables is linear and additive; (2) all residual variables are uncorrelated (no multicollinearity); (3) the pattern of relationship between variables is recursive, namely that the causal relationship is unidirectional; not reciprocal; and (4) The level of measurement of all variables at least interval.

#### 3.2.3 Assessment of Structural Equation Model Assumptions

The use of structural models is very sensitive to the characteristics of the data distribution, especially distributions that violate multivariate normality or have high kurtosis in the data. Before the data is processed, it must be tested for the presence or absence of data outliers and the distribution of the data must be normal in a multivariate manner. The suitability of the analyzed model is evaluated through three types of tests, namely:

- (5) Normality using the crisis value criterion is  $\pm 2.58$  at a significance level of 0.01. If the Z-value is greater than the critical value, it can be assumed that the data distribution is not normal.
- (6) Outliers, are observations or data that have unique characteristics that look very different from observations for both a single variable model and combination variables.
- (7) Multicollinearity and Singularity where what needs to be observed is the determinant of the sample covariance matrix. Determinants that are small or close to zero indicate the presence of Multicollinearity or Singularity so that the data can be used in research.

Structural model assessment is hypothesis testing carried out by comparing the t statistical value with the t table (Esposito et al., 2010) or by paying attention to the significant sign (\*) in the "PLS output". The structural model tests the hypothesis by showing significance (see PLS output). The measurement criteria needed to accept or reject the research hypothesis are guided by the level of significance of the loading factor or path coefficients (standardized beta) which are based on the t value and the p value. If obtained, it is concluded that it is significant and accepts the hypothesis. If testing on a significant structural model means that the effect of one latent variables on other latent variables can be generalized (Solimun, 2008).

#### 4. Research Results

## 4.1 Data Description

Description of data for 9 indicators according to variable classification and data indicators on the object company's financial ratio scale during 2010 to 2021. The results of calculating company financial ratios for variable indicators are presented in table 4, as follows:

| T 1' /    |       |                |       |       |       | A 1   |       |       |       |       |       |       |
|-----------|-------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Indicator |       | Annual Average |       |       |       |       |       |       |       |       |       |       |
|           | 2010  | 2011           | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  |
| CsR       | 19.36 | 19.72          | 17.27 | 18.11 | 15.73 | 19.10 | 19.46 | 19.48 | 18.27 | 19.20 | 23.48 | 21.10 |
| AR        | 61    | 59             | 59    | 69    | 96    | 69    | 68    | 84    | 34    | 34    | 37    | 34    |
| RITCA     | 38.01 | 40.72          | 38.65 | 37.85 | 39.19 | 37.67 | 37.51 | 38.22 | 36.96 | 36.91 | 35.76 | 38.21 |
| CATAR     | 56.20 | 56.26          | 55.78 | 55.99 | 53.35 | 52.70 | 51.45 | 51.86 | 52.16 | 50.58 | 49.60 | 51.17 |
| CATO      | 2     | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |
| CCC       | 76    | 82             | 82    | 95    | 119   | 91    | 86    | 140   | 38    | 48    | 46    | 43    |
| ATTP      | 80    | 78             | 73    | 85    | 80    | 100   | 95    | 90    | 101   | 88    | 47    | 19    |
| ROA       | 13.10 | 12.90          | 12.95 | 11.76 | 8.57  | 6.92  | 8.53  | 7.96  | 8.24  | 92.72 | 5.60  | 7.39  |
| ROE       | 18.66 | 18.71          | 19.04 | 16.27 | 13.08 | 8.53  | 12.53 | 9.77  | 13.82 | 9.17  | 7.59  | 8.56  |
|           |       |                |       |       |       |       |       |       |       |       |       |       |

#### **Table 4. Development of Research Variable Indicator Values**

Data source: company financial report, website http://www.idx.co.id in 2010 - 2021, processed in 2022

| Table 5. Statistical Description |            |            |               |             |             |             |             |             |          |          |
|----------------------------------|------------|------------|---------------|-------------|-------------|-------------|-------------|-------------|----------|----------|
|                                  |            | CsR        | AR            | RITCA       | CATAR       | CATO        | CCC         | ATTP        | ROA      | ROE      |
| Ν                                | Valid      | 960        | 960           | 960         | 960         | 960         | 960         | 960         | 960      | 960      |
|                                  | Missing    | 0          | 0             | 0           | 0           | 0           | 0           | 0           | 0        | 0        |
| Mea                              | n          | 18.9688    | 56.2450       | 36.0166     | 53.0909     | 2.130       | 78.1494     | 80.490      | 9.4705   | 12.9769  |
| Std. Deviation                   |            | 17.47173   | 52.88455      | 17.46583    | 17.34836    | .9396       | 140.79087   | 83.8706     | 12.47886 | 24.15872 |
| Minimum                          |            | .02        | .23           | .03         | .05         | 1.0         | -766.00     | .0          | -41.21   | -162.04  |
| Maximum                          |            | 91.60      | 913.00        | 116.00      | 91.07       | 8.0         | 2397.00     | 1121.0      | 105.99   | 224.46   |
| Data                             | source: co | mpany fina | incial report | , website h | ttp://www.i | dx.co.id in | n 2010-2021 | , processed | in 2022  |          |

#### 4.2 Inferential Statistical Analysis

Inferential statistical analysis in this study uses an equation model with an approach (PLS). The SmartPLS approach is variance based, is a predictive model, and can be used to confirm theory with empirical data. Model assessment is hypothesis testing done by comparing the value of the t statistic with the t table (Esposito et al., 2010) or by paying attention to the significant sign (\*) in the "PLS output". In the model test the hypothesis via show significance (see PLS output). The measurement criteria needed to accept or reject the research hypothesis are guided by the level of significance coefficients (standardized beta) which are based on the t value and the p value. If the statistical t value is greater than the t table value of 1.96 and the p value is less than 0.05, it is concluded that it is significant and accepts the hypothesis. If testing on a significant model means that the effect of one latent variable on other latent variables can be generalized. Testing the goodness of fit of the structural model on the inner model uses predictive-relevance values. The R<sup>2</sup> value of the dependent variable in this study is shown in table 6, as follows:

| Table 6. Quality Criteria of Fit Model Test |                         |
|---|-------------------------|
| Dependent Variable                          | Determinant Coefficient |
| $R \ square \ (R^2)$                        |                         |
| Profitability                               | 0.217                   |
| R square adjusted ( $adj$ . $R^2$ )         |                         |
| Profitability                               | 0.216                   |
| f Square                                    |                         |
| Profitability                               | 0.277                   |
| Source: PI S analysis processed in 2022     |                         |

 Table 6. Quality Criteria of Fit Model Test

Source: PLS analysis processed in 2022

 $R^2$  0.217 is the amount of working capital management policy (CMP) contribution in determining or explaining profitability is 21.7%. The calculation results show a predictive-relevance value of 0.217 or 21.7%. Adjustment (adj.  $R^2$ ) of 0.216 or 21.6%. The predictive-relevance value also shows that the diversity of data that can be explained by the model is 21.7% or in other words the information contained in the data can be explained by 21.7% by the model, while the remaining 78.3% is explained by other variables that have not been included in the model and error. Adjustment to 21.6%. The predictive-relevance value also shows that the diversity of data that can be explained by the model is 21.6% or in other words the information contained in the data can be explained by the model is 21.6% or in other words the information contained in the data can be explained by the model, while the remaining 78.4% is explained by other variables that have not been

included in the models and errors. The structural model (inner model) using the PLS approach shows the results of the PLS algorithm calculation.

# 4.2.1 Outer Model Testing

The Outer Model specifies the relationship between latent variables and their manifest indicators or variables (measurement model). Based on the conceptual framework and model, an outer model is then developed which is often called an outer relation which defines how each indicator block relates to its latent variable, the test results obtained are as shown in Table 7.

The outer loading value shows the weight of the value of each indicator as a measure of each latent variable. The indicator with the largest outer loading indicates that the indicator is the strongest or dominant variable. The results of the outer loading indicators of the measured latent variables were obtained through the PLS Algorithm calculation and the significant test was obtained through Bootstrapping which also produced t values and p values presented in table 7, as follows:

| Research Variable Indicators  | Outer Loading          | t-Statistik | P- Value |                 |
|---|------------------------|-------------|----------|-----------------|
|   | > 0.3 (Valid)          | > 1.96.00   | < 0.05   | Information     |
| Working capital management  | policy (WCMP)          |             |          |                 |
| CsR <- WCMP   | 0.447                  | 4.030       | 0.000    | Significant     |
| AR <- WCMP  | -0.433                 | 5.137       | 0.000    | Significant     |
| RITCA <- WCMP   | -0.311                 | 2.790       | 0.000    | Significant     |
| CATAR <- WCMP   | 0.200                  | 1.526       | 0.125    | Not significant |
| CATO <- WCMP  | 0.552                  | 4.155       | 0.000    | Significant     |
| CCC <- WCMP   | -0.553                 | 4.891       | 0.000    | Significant     |
| ATTP <- WCMP  | 0.205                  | 1.203       | 0.208    | Not significant |
| Profitability   |                        |             |          |                 |
| ROA <- PROFIT   | 0.944                  | 58.996      | 0.000    | Significant     |
| ROE <- PROFIT   | 0.914                  | 37.146      | 0.000    | Significant     |
| Significant at the level of 0.05<br>Source: Smart PLS 3 analysis re | esults processed in 20 | 22          |          | ·               |

Table 7. Results of Testing Indicators for Measuring Latent Variables

The ROA indicator has the results of statistical data analysis showing that this indicator has an outer loading of 0.944 which is significant and very strong as a measure of profitability (Profit). ROE has an outer loading of 0.914 which is significant and very strong as a measure of profitability.

# 4.2.2 Hypothesis Testing Results

| Table 8 | . Hypothesis | <b>Testing Re</b> | sults (Inne | r Model) |
|---------|--------------|-------------------|-------------|----------|

| Variabel Independen                         | Variabel Dependen | Koefisien Jalur | t-Statistik<br>> 1.96 | P- Value < 0.05 | Keputusan   |
|---|-------------------|-----------------|-----------------------|-----------------|-------------|
| Working Capital Management<br>Policy (WCMP) | Profitabilitas    | 0.466           | 5.470                 | 0.000           | Significant |
| CsR   | ROA               | 0.211           | 6.527                 | 0.000           | Significant |
|   | ROE               | 0.080           | 2.796                 | 0.005           | Significant |
| AR  | ROA               | -0.123          | 4.358                 | 0.000           | Significant |
|   | ROE               | -0.076          | 3.197                 | 0.001           | Significant |
| RITCA                                       | ROA               | 0.234           | 6.748                 | 0.000           | Significant |
|   | ROE               | 0.111           | 3.769                 | 0.000           | Significant |
| CATAR                                       | ROA               | -0.100          | 2.819                 | 0.005           | Significant |
|   | ROE               | -0.097          | 3.260                 | 0.001           | Significant |
| CATO  | ROA               | 0.285           | 6.394                 | 0.000           | Significant |
|   | ROE               | 0.309           | 5.332                 | 0.000           | Significant |
| CCC   | ROA               | -0.104          | 2.778                 | 0.000           | Significant |
|   | ROE               | -0.113          | 2.120                 | 0.034           | Significant |
| ATTP  | ROA               | 0.086           | 2.828                 | 0.005           | Significant |
|   | ROE               | 0.140           | 2.140                 | 0.033           | Significant |

Significant at the level of 0.05

Source: SmartPLS 3 analysis results processed in 2022

#### 4.3 Discussion

Working Capital Management Policy (WCMP) has a significant influence on company profitability. The results of data analysis support to accept hypothesis 1 which states that "Working capital management policies affect company profitability". Working capital management policies are related to investment decisions and financing of the company's current assets and company policies that can determine company performance (Nazir & Afza, 2009).

The ratio of cash to total current assets (CsR) has a significant effect on return on assets. The results of data analysis support accepting hypothesis 2 which states that "cash ratios have an effect on return on assets". The cash ratio has a significant effect on the return on equity. The test results support accepting hypothesis 3 which states that "the age of accounts receivable has an effect on return on equity.

Age of accounts receivable (AR) has a significant effect on return on assets. The results of data analysis support accepting hypothesis 4 which states that "the age of accounts receivable has an effect on return on assets". Age of accounts receivable (age of accounts receivable: AR) has a significant effect on return on equity. The test results support accepting hypothesis 5 which states that "the age of receivables has an effect on return on equity". The theoretical implication of this empirical is a change (increase or decrease) the age of debt will reduce the return on assets and return on equity.

The ratio of inventory to total current assets (RITCA) has a significant effect on return on assets. The results of data analysis support to accept hypothesis 6 which states that "The ratio of inventory to current assets affects the return on assets". The ratio of inventory to total current assets (RITCA) has a significant effect on return on equity. The test results support accepting hypothesis 7 which states that "The ratio of inventory to current assets or decrease) in the ratio of inventory to current assets will reduce the return on assets and return on equity. The company's management policy of investing in inventory in an amount that exceeds the minimum inventory standard will incur additional costs.

The current asset to total asset ratio (CATAR) has a significant effect on return on assets. The results of data analysis support to accept hypothesis 8 which states that "The ratio of current assets affects the return on assets". The current asset to total asset ratio (CATAR) has a significant effect on return on equity. The results of data analysis support to accept hypothesis 9 which states that "The ratio of current assets to the return on equity". The theoretical implication of this empirical is a change (increase or decrease) in the ratio of current assets in the asset structure will increase the return on assets and return on equity. The company's management policy of investing in current assets in an optimal amount will support the company's routine operational activities to generate the expected sales and profit.

Current asset turnover (CATO) has a significant effect on return on assets. The results of data analysis support to accept hypothesis 10 which states that "Current asset turnover affects return on assets". Current asset turnover Current asset turnover (CATO) has a significant effect on return on equity. The results of data analysis support to accept hypothesis 11 which states that "Current asset turnover affects the return on equity". The theoretical implication of this empirical is a change (increase or decrease) in the ratio of current assets to total assets with an optimal composition will increase return on assets. The investment policy in the current asset component is measured by the current asset ratio and the current asset turnover ratio.

The Cash Conversion Cycle has a significant influence on the return on assets. The results of the data analysis support accepting hypothesis 12 which states that "the cash conversion cycle has an effect on return on assets". The cash conversion cycle has a significant effect on return on equity. The test results support accepting hypothesis 13 which states that "The cash conversion cycle has an effect on return on equity. The theoretical implication of this empirical is that changes in the cash conversion cycle will result in changes to the return on assets and return on equity. The cash conversion cycle is the process of changing cash from cash going out to cash coming back into the company.

Age of trade payables and taxes payable (ATTP) has a significant effect on return on assets. The results of data analysis support accepting hypothesis 14 which states that "the age of accounts payable and taxes payable has an effect on return on assets". The age of trade payables and taxes payable has a significant effect on return on equity. The test results support accepting hypothesis 15 which states that "the age of trade payables and tax payables has an effect on return on equity". The theoretical implication of this empirical is that changes in the aging of accounts payable and taxes payable will increase return on assets and return on equity. The company's management policy is to buy goods on credit, then an accounts payable account appears. Companies can take advantage of accounts payable and taxes payable, namely to slow cash disbursements and maintain optimal cash balances. Accounts payable and taxes payable in the duration of time before the due date is a very efficient source of working capital financing for companies, because it is free of additional costs.

#### 5. Conclusion

This study examines the causal relationship between the probability of a company's failure in generating profitability, because there is a risk and return tradeoff from a capital management policy. The probability of failure of company management in making financial policies for an investment in current assets and sources of financing current liabilities. Every financial policy or decision must increase shareholder wealth through dividends and capital gains. One of the policies or financial decisions is the investment policy on working capital. The company's working capital policy determines the level of current assets and current liabilities that must be maintained by management. Analysis technique, using SmartPLS3. The unit of analysis is 80 manufacturing industry companies listed on the Indonesia Stock Exchange from 2010-2021, using panel data, namely time series and cross-sectional data with a number of observations, namely 960 financial reports.

The findings of this study prove that working capital management policies have a significant effect on company profitability. Current asset turnover, current asset to total asset ratio, age of trade payables and taxes payable, ratio of cash to total current assets have a positive relationship with ROA and ROE. Meanwhile, Age of accounts receivable, ratio of inventory to total current assets, current asset to total asset ratio, and cash conversion cycle have a negative relationship with ROA and ROE. This research is expected to contribute to the development of financial management science, particularly working capital management policies as a source of value creation, ensuring sufficient working capital to maintain financial stability and profit growth that ensures financial performance remains in a healthy condition.

#### 6. Recommendations

Based on the discussion, findings, and limitations of this study that have been described in the previous section, and the limitations of this study, the suggestions for further research are as follows:

- 1) Future research can add other variables that have not been included in this research model, to obtain a more comprehensive research model.
- 2) Integrating financial report data and other relevant information to overcome the limitations of historical data in financial reports.
- 3) Follow-up research can be carried out in other places for a longer time, or replace other research objects.

For companies on the Indonesia Stock Exchange and investors, the results of this research are expected to be useful input in making decisions or financing policies for a company. Practically for companies on the Indonesia Stock Exchange and investors, it can be suggested as follows:

- 1) Management must consider the company's profitability as measured by ROA and ROE can be increased by current asset turnover (CATO), current asset to total asset ratio (CATAR), age of trade payables and taxes payable (ATTP) are types of non-interest bearing debt and Ratio of cash to total current assets (CsR).
- 2) Company profitability as measured by ROA and ROE can be increased, it can also be reduced by age of accounts receivable (AR), ratio of inventory to total current assets (RITCA), Current asset to total asset ratio (CATAR), and Cash conversion cycle (CCC) is accelerated so that more cash is available for operations and re-investment, otherwise it will reduce profitability.

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