

# The Effect of Capital Structure Moderating Receivable Turnover and Inventory Turnover on Profitability


**Rika Nur Ainia\***

Management, State Islamic University Maulana Malik Ibrahim, Malang, 65144  
17510095@student.uin-malang.ac.id

\* *Corresponding author*

**Indah Yuliana**

Management, State Islamic University Maulana Malik Ibrahim, Malang, 65144  
indahoty@manajemen.uin-malang.ac.id

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**Abstract**—Receivable and inventory control in carrying out the company's activities is very important in order to achieve the company's vision and mission. This study aims to find out how the effect of receivable turnover and inventory turnover on the profitability of the company with the capital structure as a moderation variable. The population of this study was a company listed on the Indonesia Stock Exchange (IDX) for the period 2017 – 2019, the sample for this research consists of nine companies in the consumer goods, basic industries, and chemical sectors selected by purposive random sampling. The analysis method used was descriptive statistics with analysis tools using Partial Least Square (PLS) approach. The PLS-SEM analysis technique uses the help of WarpPLS 6.0 software with two stages of analysis, namely Measurement Model Analysis and Structural Model Analysis. Evaluation of the Outer Measurement Model uses three evaluation models, namely: Convergent Validity, Discriminant Validity, and Reliability Test. The results of this study showed that there was a significant positive influence between the turnover of receivables to profitability while inventory turnover has a significant negative effect on profitability and variable capital structure is not able to moderate the relationship between receivable turnover and inventory turnover to profitability.

**Keywords**— Receivable Turnover, Inventory Turnover, Capital Structure, Profitability.

## I. INTRODUCTION

In business competition in this millennial era, various approach strategies in sales, finance, and marketing are carried out in order to increase sales. One of them is the sale by credit (debts). According to Yazdanfar and Ohman (2014) in (Darmawan & Firmansyah, 2018) explained that credit sales transactions have an influence on increasing sales growth in a company.

Based on the principle of inventory turnover activities must be carried out in accordance with the path of production activities. The higher the inventory turnover, the less cost in maintenance and maintenance will be charged to the company. and if inventory

turnover decreases, then maintenance and maintenance costs will rise and on the other hand, the profit generated by the company will decrease (Raharja Putra (2009: 132) in (Naibaho & Rahayu, 2014).

To meet the demand for volatile receivables every period, of course, the company must have a deeper strategy in regulating capital control patterns, the company's capital structure must be robust in order to anticipate the risks that will likely occur in the application of debt receivable activities, as well as in inventory, in addition to considering demand and supply, the level of capital owned also needs to be considered to maintain the financial balance of the company. Capital management is an important aspect of the survival of the company because working capital is a determining factor for smooth operations in the company's short term. A company that is able to create sustainable working capital gains is a company that is able to utilize capital effectively and efficiently.

Based on (Kurniawati & Fitri, 2015) and (Arianti & Rusnaeni, 2018) stated that the turnover of receivables and inventory turnover has no significant effect on profitability, and strengthened by (Nurafika, 2018) states that inventory turnover has a simultaneous effect on profitability while receivable turnover has no effect on profitability. In contrast to (Naibaho & Rahayu, 2014) which stated that the partial turnover of receivables has a significant effect on the profitability of inventory turnover has a significant effect on the level of profitability. Supported by (Tiong, 2017) which states that the turnover of receivables has a significant effect on profitability.

According to (Violita & Sulasmiyati, 2017) the effectiveness of the capital structure will have a significant impact on profitability, with good circulation of capital structure will have an impact on good business activities as well. (Marusya & Magantar, 2016) explained that DAR and DER projections on the capital structure can have a significant impact on profitability. So from the differences in the research, researchers want to examine more about the effect of Receivable Turnover and Inventory Turnover on Profitability Level by using the capital structure as a moderation variable.

### A. *Receivable turnover and inventory turnover to profitability.*

According to the pecking order theory, good management of accounts receivable funds will certainly have an impact on good capital turnover results, because, from a fast turnover, companies can roll back the funds obtained to be used as additional capital in operational activities. Based on PSAK No.43, it is stated that receivables are a type of payment in the form of purchase or transfer of receivables in the form of short-term receivables from a company originating from business transactions. In the Trade theory credit sales activities can increase sales which are expected to affect the profitability received. Credit sales have no effect on sales growth but have a positive effect on profits (Darmawan & Firmansyah, 2018). Receivables are claims to other parties in the form of money or goods resulting from sales on credit (Santoso, 2013). This research was conducted by (Naibaho & Rahayu, 2014), (Nuriyani & Zannati, 2017), (Tiong, 2017), (Ferawati et al., 2020), (Rahayu et al., 2017) which state that accounts receivable turnover has a significant effect on profitability. Based on this research, the first hypothesis in this study can be presented as follows:

Receivable turnover is positively significant to Profitability, according to the pecking order theory on the company's inventory turnover activities is with the availability of sufficient internal capital of the company will certainly help the availability of goods that can meet the demand and market supply, so it is expected that the availability can increase sales. Similarly, according to trade-off theory that if the demand for goods increases but the availability of capital is limited, additional funds from external funds are needed to fulfill it. So that from the funding sales can run smoothly and can increase the profitability of the company. According to research by (Kurniawati & Fitri, 2015), (Nurafika, 2018), (Surya et al., 2017). Stating that there is no significant effect between inventory turnover on profitability, so the second hypothesis is presented as follows: Inventory Turnover has no significant positive effect on Profitability.

### B. *Moderation The capital structure of receivable and inventory turnover to profitability.*

According to (Violita & Sulasmiyati, 2017) the effectiveness of the capital structure will have a significant impact on profitability, the capital structure can also be connected with the company's ability to generate profitability as a measurement of the company's financial performance. (Saraswathi et al., 2016), (Ambarwati et al., 2017)

hypothesis is presented as follows, the capital structure has a significant influence in moderating the relationship between Receivable Turnover to Profitability and the capital structure has a significant influence in moderating the relationship between Inventory Turnover to Profitability.

## II. THE FOUNDATION OF THEORY

### 1) *Trade of theory*

Explaining that the capital structure is the maximum use of debt in order to obtain tax savings due to interest payments, there are several factors that can be considered in the application of trade-off theory such as: sales stability, asset structure, operating leverage, rate growth, taxes and management attitudes (Brigham & Houston, 2013). (Jensen & Meckling, 2019) stated that in the trade-off theory, the company established a policy of optimizing the financial structure by balancing the benefits and costs of the debts of companies that have interest and resulting in tax savings due to the interest expense on the income so that pre-tax profits decrease and so on related taxes.

### 2) *Pecking Order Theory*

Presented by Donaldson in 1961 this theory explained that the higher the level of debt usage, it will signal the company's ability to earn profit, this aims to maximize the use of capital from within the company rather than external capital. And the funding can come from the company's operations that can take the form of retained earnings, (Prabansari & Kusuma, 2005). Pecking Order Theory is also intended so that internal managers can manage and utilize the company's internal data well and maximally so that the company's managerial is prioritized and most importantly in financial management. High corporate risk generally prefers the use of internal funds over the use of debt or stock issuance. The higher the business risk, the lower the capital structure. (CAHYANI, 2013)

### 3) *Receivable Turnover*

According to the Indonesian Institute of Accountants in PSAK book No. 9: "The source of receivables is classified into two categories, namely trade receivables and other receivables. Trade receivables include receivables arising from the sale of principal for the delivery of services in the framework of the company's normal business activities. Receivables arising from transactions outside the company's business activities are classified as other receivables".

Accounts receivable turnover is a ratio to measure the time it takes to collect debt in one period. The higher the ratio indicates that the working capital invested in receivables is lower and gives good results for the company.

Receivable turnover is calculated by dividing net sales by average receivables, (Brigham & Houston, 2013). Receivables owned by a company are closely related to the sales volume of credit.

Receivables can be calculated using the receivable turnover ratio, with the following formula (1)

$$\text{Receivable turnover} = \frac{\text{Sales}}{\text{Average Receivable}} \quad (1)$$

4) *Inventory Turnover*

According to (Kasmir, 2012) inventory turnover is a ratio used to measure the number of times funds grown in this inventory rotate in a period. It can also be interpreted that inventory turnover is a ratio that shows the number of times the number of inventory items are replaced in one year. According to (Fahmi, 2012) the formula for finding inventory turnover is (2)

$$\text{Inventory Turnover} = \frac{\text{Sales}}{\text{Average Inventory}} \quad (2)$$

5) *Profitability*

Return on Asset (ROA) (3) is a measure used to show the company's ability to generate profits from assets owned. Through this ratio, it can be seen how efficient the company is in utilizing assets in the company's operational activities. (Munawir, 2014)

$$\text{ROA} = \frac{\text{Net income before tax}}{\text{Total asset}} \times 100\% \quad (3)$$

The higher the value of the ratio generated, the more effective the company is in utilizing the company's assets to generate profit after tax. Profitability indicators based on Return on Asset (ROA) have the following advantages:

1. Have a comprehensive indicator to analyze the state of the company based on financial statements.
2. Easy to understand in absolute value
3. Denominator that has been applied in every business unit responsible for profitability.

In addition to these advantages, there are weaknesses in ROA indicators, including:

1. Division managers tend to lower projects that decrease divisional ROA, although such projects can increase the company's profits
2. The manager's goal is to focus on the short term rather than the long term
3. Projects in ROA, in increasing short-term profits, but from the effectiveness of attitudes carried out such as trimming labor costs, raw materials, and marketing can result in product quality in the long run.

Return On Equity (ROE) is a profitability ratio that compares net profit with its net assets (equity or capital). This ratio measures how much profit the company makes compared to the capital paid up by shareholders (Ikhwal, 2016). The formula in calculating Return On Equity (ROE) (4)

$$\text{ROE} = \frac{\text{Net income before tax}}{\text{Total Equity}} \times 100\% \quad (4)$$

The higher the value generated in the calculation, it can indicate that the company can maximize the ability of its own capital to generate profits for all shareholders, both common shares and preferred shares. The advantages of indicators in Return on Equity (ROE) are as follows:

1. Efficiency of the company managing the company's assets (asset management)
2. Effectiveness of the company in utilizing debt in business (financial leverage)

In addition to these advantages, the following weakness indicators in ROE:

1. Return On Equity (ROE) is less considered risk.
2. Return On Equity (ROE) is less considering the amount of capital invested (Ikhwal, 2016).

## III. METHODS

This research uses quantitative methods in the form of secondary data obtained from the company's annual report. The population in this study was a consumer good, basic industrial and chemical sector company listed on the Indonesia Stock Exchange for the period 2017-2019. Sampling techniques using purposive random sampling aim to obtain samples from various manufacturing sectors that are sustainable and representative in accordance with the specified criteria. The criteria used to select the sample are as follows:

Table 1. Research Sample Selection Criteria

Description	Number of Companies
Basic Industry and Chemicals Sector Company for the period 2017-2019 which becomes a population with purposive random sampling method	81
Companies with Main Boards	46
Companies with incomplete annual and financial statements	-1
Companies that suffered losses in the research year period, based on value (ROA and ROE)	-13
Companies that enter the sample criteria	32
Companies with Development Boards	36
Companies with incomplete annual reports	-5
Companies that suffered losses in the research year period, based on value (ROA and ROE)	-13
Companies that enter the sample criteria	18
Sub Total Sample	50
Consumer Goods Industry Sector Companies for the period 2017-2019 which became a population with purposive random sampling method	38
Companies with Main Boards	21
Companies with incomplete annual and financial statements	-1
Companies that suffered losses in the research year period, based on value (ROA and ROE)	-5
Companies that enter the sample criteria	15
Companies with Development Boards	15
Companies with incomplete annual reports	-3
Companies that suffered losses in the research year period, based on value (ROA and ROE)	-5
Companies that enter the sample criteria	7
Sub Total Sample	22
Grand Total Population	129
Grand Total Sample	72
Grand Total Sample x 3 years	216
Final sample of data verification process results (9 companies x 3 years)	27

A. Independent Variable

Variables that influence dependent variables (Sugiyono, 2013). Independent variables in this study are operational financial performance that is projected with Receivable Turnover, and Inventory Turnover (5) (6)

$$Receivable\ turnover = \frac{Sales}{Average\ Receivable\ Sales} \quad (5)$$

$$Inventory\ Turnover = \frac{Sales}{Average\ Inventory} \quad (6)$$

B. Dependent Variable

Variables influenced by Independent variables (Sugiyono, 2013). Independent variables in this study are financial performance that is proxied with Return On Asset (ROA) (7), Return On Equity (ROE) (8).

$$ROA = \frac{Net\ income\ before\ tax}{Tottal\ asset} \times 100\% \quad (7)$$

$$ROE = \frac{Net\ income\ before\ tax}{Tottal\ Equity} \times 100\% \quad (8)$$

C. Moderating Variable

Variables that give influence to strengthen or weaken the relationship between (Sugiyono, 2013). The moderation variable in this study is the capital structure (9) with the comparison between the capital in the company and the amount of long-term debt held by the company (Riyanto, 2012)

$$Capital\ Structure = \frac{Long-term\ Debt}{Tottal\ Equity} \times 100\% \quad (9)$$

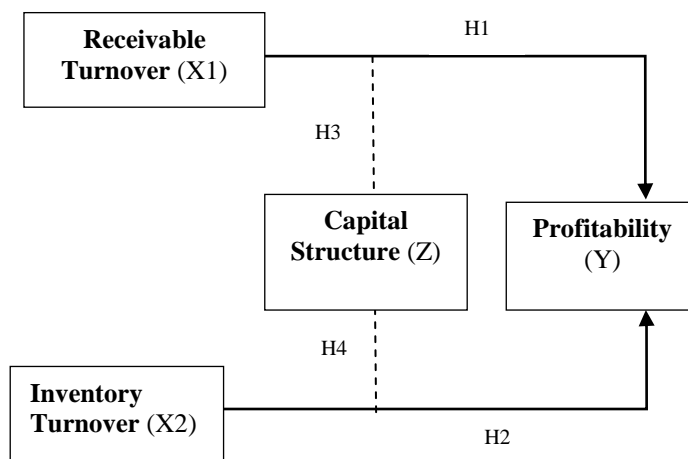


Figure 1. Research Procedure

IV. RESULT AND DISCUSSION

Analysis in this study the authors used PLS-SEM analysis techniques using the help of WarpPLS 6.0 Software with two stages of analysis, namely Measurement Model Analysis and Structural Model Analysis. Evaluation of Outer Measurement Model uses 3 evaluation models, namely:

1. *Convergent Validity*. The measurement model of the correlation between the indicator score and its construct score (loading Factor) and the criteria of loading factor value of each indicator greater than 0.5 can be said to be valid (Kock, 2020). WarpPLS 6.0 calculation results show that each value in Cross-Loadings Factor has reached a value above 0.5 with a value of P < 0.001. Thus the convergent validity test

criteria have > been met. This means that all the above indicators are valid and can be used in the model. In this study, to measure Convergent Validity can be done by looking at the results of WarpPLS 6.0 in the Average Variance Extracted (AVE) section. The result of the truck kons - the truck kons mentioned shows that the AVE value of all the construction produced is greater than 0.5. Based on ave criteria, the results have shown convergent validity which is said to be good.

2. Discriminant Validity, For this Test using the root ratio of AVE with correlation between variables. The AVE value of the construct should be higher than the correlation between Latent variables (Kock, 2020). WarpPLS 6.0 calculation results show that the ave

root value of the same variable has been higher than the ave root value in different variables. This indicates that the discriminant validity test criteria have been met. Thus the instruments used in this study have fulfilled all validity test requirements.

3. Reliability Test, each construct has a high reliability which it can be seen from the Composite Reliability value of the entire construct greater than 0.70 (Kock, 2018). After evaluating the Measurement Model where Convergent Validity, Discriminant Validity, and Composite reliability have been qualified, the next step is to conduct a Structural Evaluation. This model fit test is used to determine if the model match with the data.

Table 2. Model fit and Quality Indices

Criteria	Value	Description.
APC	0.238, P= 0.043	Approve
ARS	0.503, P< 0.001	Approve
AARS	0.413, P< 0.001	Doesn't Approve
AVIF	1.633	Approve
AFVIF	2.055	Approve
GoF	0.708	Approve, Large
SPR	0.750	Approve
RSCR	0.985	Approve
SSR	1.000	Approve
NLBCCR	0.625	Doesn't Approve

From the general result output in the table above it is known that: The model has a fairly good fit, with a P-value for ARS, greater than or equal to 0.05 with a value of 0.503. APC and AARS, however, have not met the values of 0.238 and 0.413, respectively. Similarly, avif (1,633) and AFVIF (2,055) are generated  $\leq 5$ . Which suggests that there is no problem of multicollinearity between indicators and exogenous variables. The resulting GoF of 0.708 > 0.36 indicates that the fit model is good value. For index SPR (0.750), RSCR (0.985), SSR (1.000), NLBCDR (0.6245) indicates that there is no causality relationship in the model.

From the model picture above obtained adjusted R-Squared value of 0.413 or 41.3% which indicates that profitability has a low relationship with the turnover of receivables and inventory turnover and the remaining 58.7% is influenced by other variables outside the model.

Simultaneously, accounts receivable turnover and inventory turnover have a significant relationship to profitability according to the research of Naibaho, 2014. And partially accounts receivable turnover has a significant positive effect on profitability according to research by Naibaho (2014), Nuriyani, et.al (2017), Tiong (2017) ), Yusmalina et.al (2020), Sri Rahayu, et.al (2017) so hypothesis one (H1) can be accepted and inventory turnover has a significant negative effect on profitability in contrast to research by Tri Kurniawati, et.al (2015), Rike Ayu Nurafika (2018), Sarjito Surya, et.al (2017) who say that if turnover does not affect profitability, the hypothesis (H2) cannot be accepted. And the capital structure cannot moderate the relationship between accounts receivable turnover and inventory turnover to profitability so the hypothesis (H3 and H4) cannot be accepted.

V. CONCLUSION

Accounts receivable turnover at the company listed on the Indonesia Stock Exchange for the period 2017 – 2019, has a significant positive effect on profitability. Inventory turnover at the company listed on the Indonesia Stock Exchange for the period 2017 – 2019 has a significant negative effect on profitability and capital structure cannot moderate accounts receivable turnover and inventory turnover on profitability. Suggestions for further research are to increase the number of years of research to obtain a more valid fit model indicator data for

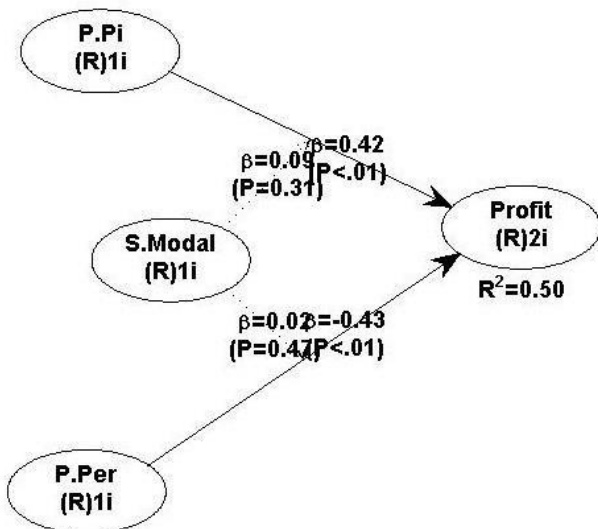


Figure 2. the research model, along with the results processed using warppls 6.0

at least 5 years and add the sample of companies from another sector

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