

The Influence of Asset Structure, Inventory Turnover and Accounts Receivable on Profitability of Pharmaceutical Companies in Indonesia

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Abstract:- One of the sub-sectors in manufacturing companies, namely the pharmaceutical subsector have current assets that are greater than fixed assets. Based on data from balance sheet of companies, it is known that there are 8 out of 10 companies that have more current assets compared to fixed assets. The purpose of this study is to determine the effect of asset structure and working capital management on company profitability. The data analysis method in this research is the dependent method. The variables in this study are asset structure, inventory turnover, accounts receivable turnover, and company profitability. The results of the study are based on the results of the t statistical test (partial test) that only variable inventory turnover has no effect on profitability, the rest of the other variables are asset structure and receivables turnover have negative effect on profitability as measured by the GPM ratio. Based on the F statistical test (simultaneous test), the asset structure, inventory turnover, and accounts receivable turnover together or simultaneously have a significant effect on profitability.

Keywords:- *Asset Structure, Working Capital Management, Profitability.*

I. INTRODUCTION

One of the roles of financial managers is to make decisions regarding company finances, including decisions on the allocation of funds. The allocation of company's funds is reflected in the balance sheet on the asset position. The asset position of the balance sheet also describes the company's asset structure. Asset structure is the determination of how much funds are allocated for each asset component, both in current assets and fixed assets [1]. Asset structure is a comparison between current assets and fixed assets both in absolute terms and in relative terms. Asset structure in absolute terms is a comparison in nominal terms, while asset structure in a relative sense is a comparison in percentage form [2]

Current assets are assets or assets that can be immediately cashed (cashed out) when needed and for a maximum of 1 year. The preparation of these current assets usually starts with the most current assets which are the easiest to liquidate. The components in current assets consist of cash, banks, securities, receivables, inventory, prepaid rent, and other current assets. While fixed assets are assets of the

company that are used in the long term of more than 1 year. Broadly speaking, fixed assets are divided into two types, namely tangible fixed assets such as land, buildings, machinery, and other vehicles. Intangible fixed assets for example patents, trademarks, goodwill, licenses, and others [3]

In general, manufacturing companies have larger current assets when compared to fixed assets in the company's asset structure. One of the sub-sectors in manufacturing companies, namely the pharmaceutical sub-sector, when viewed from the pattern of asset structure, pharmaceutical companies have larger current assets when compared to fixed assets. Based on data from the financial statements of companies that are members of the pharmaceutical sub-sector, it is known that there are 8 out of 10 companies that have larger current assets when compared to fixed assets.

The greater the ratio of the asset structure, the better because it shows the availability of cash, receivables and inventories that can be used at any time to finance the company's operational needs in generating profits [4]. However, this large current asset must be followed by good working capital management because working capital performance will affect the company's operating performance. The performance of the company's working capital management can be seen from the company's ability to manage current assets which is indicated by, among others, the inventory ratio and the receivables turnover ratio.

When viewed from the inventory and receivables turnover in the pharmaceutical sub-sector, there are pharmaceutical companies in Indonesia that have inventory and receivables turnover below the industry standard ratio and some have inventory and receivables turnover above the industry standard ratio. The higher the inventory and receivables turnover, the better the company's ability to manage inventory and receivables and vice versa. According to A. Rahemen and M. Nasr [5] the management of working capital is one of the important components in the company's finances because it directly affects the profitability of the company.

Several studies have been carried out to examine the effect of asset structure on profitability, such as H. Rahmi [6], F. Rahmiyatun and K. Nainggolan [4], and I. Rahmawati

and M. K. Mahfudz [7]. The results of the study H. Rahmi [6] and K. Nainggolan [4] state that the asset structure affects the level of profitability, while I. Rahmawati and M. K. Mahfudz [7] stated the asset structure does not significantly affect profitability.

Studies that focus on the effect of inventory turnover on profitability, such as I. Lazaridis and D. Tryfonidis [8]), A. Raheman and M. Nasr [5], L.D. Wikardi and N.T. Wiyani [9], and N. Sufiana and N. Purnawati [10]. Based on the results of research conducted by I. Lazaridis and D. Tryfonidis [8], A. Raheman and M. Nasr [5], N. Sufiana and N. Purnawati [10], N.T. Wiyani [9], and M. A. Canizio [11] show the level of inventory turnover has an effect on profitability. Meanwhile, research conducted by N. M. V. Sari and I. G. A. N. Budiasih [12] states otherwise that inventory turnover has no effect on company profitability.

While studies that focus on the effect of receivable turnover on profitability, such as N. Sufiana and N. Purnawati [10], E. A. Rahayu and J. Susilowibowo [13], and M. A. Canizio [11]. Based on the results of research conducted by N. Sufiana and N. Purnawati [10] and M. A. Canizio [11] stated that receivable turnover has an influence on company profitability. However, this study is not in line with the results of research conducted by E. A. Rahayu and J. Susilowibowo [13] which shows that accounts receivable turnover has no significant effect on profitability.

Based on the results of the research above regarding the asset structure, inventory turnover, and receivables on profitability which have different research results. Therefore, this study aims to determine whether there is an influence of asset structure, inventory turnover, and accounts receivable turnover on the profitability of pharmaceutical companies in Indonesia that have more current assets than fixed assets in their asset structure.

II. LITERATUR REVIEW

Asset Structure

Asset structure is a comparison between current assets and fixed assets both in absolute terms and in relative terms [2], while according to L. Syamsuddin [1] asset structure is the determination of the allocation of each component of assets, both in current assets and in fixed assets.

According to Kasmir [3], current assets are assets or assets that can be immediately cashed in when needed and for a maximum of 1 year. The preparation of these current assets usually starts with the most current assets which are the easiest to liquidate. The components in current assets consist of Cash, Bank, Securities, Receivables, Stock, prepaid lease, and other current assets.

While fixed assets are assets or assets of the company that are used in the long term of more than 1 year. Broadly speaking, fixed assets are divided into two types, namely tangible fixed assets and Intangible fixed assets.

Working Capital

Working capital is defined as the capital used to finance the daily operations of the company, especially those that have a short period of time. Working capital is also defined as all current assets owned by a company or after current assets are reduced by current liabilities. Or in other words, working capital is an investment invested in current assets or short-term assets, such as cash, banks, securities, receivables, inventory, and other current assets. While working capital management is a management of the company's investment in short-term assets, meaning how to manage investment in the company's current assets [3]

Still according to Kasmir [3] in general the concept of working capital is divided into 3 (three) kinds, namely, quantitative, qualitative, and functional concepts. Working capital quantitative concept is the total amount of current assets which is also called gross working capital. The concept of quality is a concept that focuses on the quality of working capital called net working capital. Functional concept Emphasizes the function of funds owned by the company in obtaining profits.

Profitability

According to B. Riyanto [2] profitability is the company's ability to earn profits through all existing capabilities and sources. Profitability ratios are used to assess the company's ability to generate profits. From the type of profitability ratio, in this study only used the ratio of Gross Profit Margin. *Gross Profit Margin* (GPM) serves to measure the rate of return of gross profit on sales.

Relationship between Asset Structure and Working Capital Management with Profitability

Companies that have high fixed assets can be used as collateral to obtain funding [14]. Companies that have high fixed assets will find it easier to increase profits because there are assets that can be used as collateral to get funding [7].

In addition to the asset structure, working capital is very important for the company because it will affect the company's profitability. Given the importance of working capital, companies need to manage work well because if it is not managed properly, a shortage of working capital will cause the company's operations to be disrupted and too much working capital will cause idle funds [3]. Receivables and inventories are components of working capital. The capital component needs to be managed to increase the company's growth or maximize profits [8]. The company's ability to manage inventory and receivables can be seen from the receivables turnover ratio and inventory turnover ratio. The higher the inventory and accounts receivable turnover rate, the better the company in managing inventory and receivables, and otherwise.

The higher the inventory turnover, the better the company in managing inventory and receivables, and otherwise. According to Ramadita & Suzan [15] if the inventory turnover is high, the more profits the company will get. Results Based on research conducted by Lazaridis and Tryfonidis [8], Raheman and Nasr [5], Sufiana and Purwati

[10], Wikardi & Wiyani [9], and Canizio [11] show the level of inventory turnover has an effect on profitability.

Accounts receivable turnover is very important for companies to be able to find out early on the occurrence of receivables. Because if there is a receivable activity, the more receivables can be collected. With so many receivables that can be collected, it will have an impact on increasing the company's profitability [16]. The results of this study are in line with research conducted by Sufiana & Purnawati [10] and Canizio [11] which state that receivables have an influence on company profitability.

III. RESEARCH METHOD

Population and Sample

The population in this study are all pharmaceutical companies listed on the Indonesia Stock Exchange. The following table lists the companies that are members of the pharmaceutical sub-sector in Indonesia.

Table 1. List of Pharmaceutical Companies

Company Name	IPO Date
PT Darya Varia Laboratio, Tbk	Nov 1, 1994
PT Indofarma, Tbk	April 17, 2021
PT Kimia Farma, Tbk	July 4, 2001
PT Kalbe Farma, Tbk	July 30, 1991
PT Merck Indonesia, Tbk	July 23, 1981
PT Phapros, Tbk	Dec 26, 2018
PT Pyridam Farma, Tbk	October 16, 2001
PT Merck sharp Dohme Pharma	June 08, 1990
PT Industri Jamu & Farmasi Sido Muncul Tbk	Dec 18, 2013
Tempo Scan Pasific	January 17, 1994

Source: www.idx.co.id

With regard to the research sample, the sampling technique in this study was purposive sampling. According to Sugiyono [17] purposive sampling is sampling based on certain criteria. The sample in this study amounted to 8 companies with the following sampling criteria:

- The company is a member of the pharmaceutical sub-sector in Indonesia
- Have financial report data for 4 years period 2015 – 2018
- The company has high current assets compared to fixed assets in a row for 4 years from the 2015 – 2018 period

Research Variable

The variables in this study consisted of independent variables and dependent variables. The independent variable is the variable that affects or causes the change or the emergence of the dependent (bound) variable. While the dependent variable is a variable that is influenced or becomes a result because of the independent variable [17]. The independent variables in this study are the asset structure variable (X_1), inventory turnover (X_2), and accounts receivable turnover (X_3). While the dependent variable in this study is the ratio of GPM (Y).

Definition and Measurement of Research Variables

Asset Structure (X_1)

Asset structure is the ratio of current assets to fixed assets [2]. The formula for the asset structure is as follows

$$\text{Asset Structure} = \frac{\text{Current Assets}}{\text{Fixed Assets}} \times 100\%$$

Inventory Turnover (X_2)

Inventory turnover is a ratio used to measure the number of times the funds invested in this inventory rotate in one period [3]. Inventory turnover can be measured using the following formula

$$\text{Inventory Turnover} = \frac{\text{Sales}}{\text{Inventory}}$$

Accounts Receivable Turnover (X_3)

Accounts receivable turnover is a ratio used to measure how long it takes to collect receivables during a period or how many times the funds invested in these receivables rotate in one period [3]. Accounts receivable turnover rate can be calculated by the following formula

$$\text{Account Receivable} = \frac{\text{Credit Sales}}{\text{Receivable}}$$

GPM (Y)

Gross Profit Margin is a percentage of gross profit compared to sales [1]. The larger the gross profit margin, the better the company's operating conditions. The *Gross Profit Margin (GPM)* ratio can be calculated using the following formula

$$\text{GPM} = \frac{(\text{Sales} - \text{Cost of Goods Sold})}{\text{Sales}}$$

Data Analysis Technique

The data analysis technique in this study used SPSS Statistics 24. This study tested the classical assumption test first before the regression test. Classical assumption test is needed to provide research results that are the *Best Linear Unbiased Estimator* [18]. Classical assumption test includes normality, multicollinearity, autocorrelation, and heteroscedasticity tests. If the regression model qualifies classic assumption test, the next step is to analyze the results of the regression test to see the value of coefficient of determination (R^2), t-test and F-test.

IV. RESULTS AND DISCUSSION

The sample in this study amounted to 8 companies from the pharmaceutical sub-sector listed on the Indonesia Stock Exchange. The variables in this study consist of asset structure, inventory turnover, accounts receivable turnover, and the GPM ratio. To see the descriptive data of the research variables, the following is a descriptive statistical table of each research variable:

Table 2. Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
GPM (Y)	32	15.04	56.99	39.8847	14.83323
Asset Structure (X1)	32	1.17	5.29	2.6828	1.10458
Inventory Turnover (X2)	32	3.00	7.73	5.7200	1.13910
Account Receivable Turnover (X3)	32	2.17	9.60	6.3103	2.39585
Valid N (listwise)	32				

Source: SPSS Processed Data version 23

Based on the table above, it can be seen that companies in the pharmaceutical sub-sector have a GPM ratio for the period 2015 – 2018 with an average value of 39.8%, the lowest value of 15.04% and a maximum value of 56.99%. The asset structure of companies in the pharmaceutical sub-sector in Indonesia for the period 2015 - 2018 has an average value of 2.68%, the lowest value of 1.17% and a maximum value of 5.29%. Inventory turnover in the pharmaceutical sub-sector in Indonesia for the period 2015 - 2018 has an average value of 5.72%, the lowest value of 3.00% and a maximum value of 7.73%. Accounts receivable turnover in the pharmaceutical sub-sector in Indonesia for the 2015 - 2018 period has an average value of 6.31%, the lowest value of 2.17% and a maximum value of 9.60%.

Based on the results of the classical assumption test, it is known that this research data meets the classical assumption test consisting of normality, multicollinearity, heteroscedasticity tests. However, after the autocorrelation test, it was found that there was an autocorrelation According to I. Ghazali [18] one of methods to overcome the occurrence of autocorrelation is to use the first difference method so that in this study, before conducting the regression test, the first difference method was used to overcome the occurrence of autocorrelation. After all the classical assumptions are met, the following are the results of the coefficient of determination (R^2) test, F-test, and t-test.

Table 3. Test Results R^2

Model Summary ^{a, d}					
Model	R	R Square ^b	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.675 ^a	.455	.397	8.31991	1.985
a. Predictors: dAssetStructure, dInventoryTurnover, dAccountReceivableTurnover					
b. Dependent Variable: dGPM					

Based on the table 3, the test results the value of the coefficient of determination R^2 is 0.397. This means that the dependent variable, namely the profitability measured in manufacturing companies in the pharmaceutical sub-sector, is influenced by the three independent variables, namely asset

structure, inventory turnover, and receivables turnover of 39.7%. While the rest 60.3% is influenced by other variables.

Test (F-Test) is used to show whether all independent variables as a whole or together have an influence on the dependent variable [18]. This test was carried out using a significance level of 0.05 ($\alpha = 5\%$). If the significance value is < 0.05 , then the independent variables jointly have a significant effect on the dependent variable.

Table 4. F Test Results

ANOVA ^{a, b}						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1620.075	3	540.025	7.801	.001 ^c
	Residual	1938.183	28	69.221		
	Total	3558.258 ^d	31			
a. Dependent Variable: dGPM						
b. Predictors: dAssetStructure, dInventoryTurnover, dAccountReceivableTurnover						

Source: Processed Data SPSS version 23

Based on the table above regarding the results of the simultaneous test (F test) it can be seen that the F test value is 7.801 and is significant at 0.001 which means that the independent variables of asset structure, inventory turnover and receivables turnover simultaneously or together affect the ratio of GPM.

The t statistic test is basically used to show how far the influence of one independent variable individually in explaining the dependent variable is. From the results of data processing through the SPSS program obtained as follows

Table 5. Results of t-Test

Coefficients ^{a, b}								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	dAssetStructure	-4.161	1.371	-.437	-3.034	.005	.940	1.064
	dInventoryTurnover	.545	1.310	.060	.416	.681	.939	1.065
	dAccountReceivable Turnover	-3.782	.973	-.543	-3.885	.001	.994	1.006
a. Dependent Variable: dGPM								

Source: SPSS Processed Data version 23

Based on the table.5, the results of the partial test (t-test) can be seen from the three independent variables, only Inventory Turnover which has a significant value greater than 0.05, which means that only inventory turnover has no effect on the GPM ratio.

The asset structure has a significance coefficient value of 0.005 based on the results of the t-test where the value is smaller than 0.05 and has a negative coefficient, which means that the asset structure has a partially negative and significant effect on the *Gross Profit Margin* of pharmaceutical sub-sector companies in Indonesia for the 2015-2018 period. Asset structure has a negative effect on GPM, meaning that the higher the current assets, the lower the company's profitability as measured by the GPM ratio. Current assets are indeed needed by the company for the company's operational activities, but funds that are too much embedded in current assets are also not good for the company

because funds also need to be allocated to other assets that can generate operating leverage so as to increase profits.

Based on the results of the t-test, inventory turnover has a coefficient value of $0.681 > 0.05$, which means that inventory turnover does not have a partial significant effect on the *Gross Profit Margin* of companies in the pharmaceutical sub-sector in Indonesia for the 2015-2018 period. This is in line with the results of research N. M. V. Sari and I. G. A. N. Budiasih [12] showing that *inventory turnover* does not affect *the company's gross profit margin*.

Based on the results of the t-test, receivables turnover obtained a significance coefficient value of $0.001 < 0.05$ and has a negative coefficient which means that receivables turnover has a negative and partially significant effect on the *Gross Profit Margin* of pharmaceutical sub-sector companies in Indonesia for the 2015-2018 period. that accounts receivable turnover has a negative effect on *gross profit margin*. This happens maybe because there are costs incurred by the company in an effort to convert receivables into cash so that it has an impact on company profits. According to Eka Pratiwi & Ardini [16] receivable turnover shows the company's efficiency in managing its receivables. The more accounts receivable turnover shows that the more costs will be incurred by the company in collecting receivables.

V. CONCLUSION

This study aims to determine whether the structure of assets, inventory turnover and accounts receivable turnover affect the profitability of the pharmaceutical subsector registered company in Indonesia during the period 2015 - 2018. Based on the results of t-test (partial test), it is known from only independent variable inventory turnover have a significant effect on the GPM ratio, the remaining other variables, namely the structure of assets and accounts receivable turnover have a significant effect on the GPM ratio of companies in the pharmaceutical sub-sector listed on the Indonesia Stock Exchange. Asset structure and receivable turnover have a negative and significant impact on the *Gross Profit Margin* of pharmaceutical sub-sector companies in Indonesia for the 2015-2018 period.

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