The Effect of Management of Receivables, Payables and Inventories on Manufacturing Companies of The Pharmaceutical Sub Sector Listed on The Indonesia Stock Exchange Period 2017 – 2021

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Abstract
The aim of this study is to identify how receivables turnover (RTO), payable turnover (PTO), and inventory turnover (ITO) affect profitability by using return on equity (ROE) as the measurement. The samples used in this study were pharmaceutical sub-sector manufacturing companies, that were listed on the Indonesian Stock Exchange for the 2017–2021 period. The independent variables used in this study are RTO, PTO, and ITO, while the dependent variable is return on equity (ROE). The analytical method used is the multiple linear regression model. The result of this study shows that RTO partially affects ROE, while PTO does not, and ITO fully does. Meanwhile, RTO, PTO, and ITO simultaneously affect ROE.

Key words: receivable turnover, payable turnover, inventory turnover, return on equity.

Introduction
One purpose for establishing a company is to get profits. This affirmation is supported by the definition of a company according to Kansil (2001), namely all forms of business entities that carry out all types of business, are permanent and continuous and are established, operate and are located in the territory of the Indonesian state for income and/or profit. Company profitability has always been one of the concerns and priorities of company owners, company management, investors or potential creditors. For company leaders, profitability is used as a measure of the success or failure of the company they lead. Profitability according to I Made Sudana (2011) is the ability of a company to generate profits by using the sources owned by the company, such as assets, capital or company sales.

The company’s own profitability can be measured by return on equity (ROE), because return on equity has a positive relationship to changes in profit/profitability. Return on equity (ROE) according to Wachowicz (2013) "shows the ability to generate a return on investment based on the book value of shareholders and is often used in comparing two or more companies from the same industry". According to Riyanto (2013) return on equity (ROE) is the ratio between net income and equity.

The success of a company can be judged by its ability to generate profits. This is in accordance with the concept of profit according to Suwardjono (2013) which is defined as a reward for the company’s efforts in producing goods and services. The profit earned by the company will be able to develop various activities, increase the volume of assets, capital and the ability to develop and expand its business area. In general, the success of the company in carrying...
Working capital management (debt management) is one of the prominent financial functions in any organization. Current liabilities are defined as financial obligations of a company whose payments are carried out in the current account, namely current assets and current liabilities. Working capital management is one of the most important aspects of overall business expense management. If the company cannot maintain a satisfactory level of working capital, the company will be at a disadvantage.

According to Warren, et al (2014) what is meant by "receivables" (piutang) includes all bills in the form of money that demand other people or companies for credit sales. Meanwhile, according to Soemarso (2014) "Credit sales are transactions between companies and customers for the provision of goods or services that result in receivables". Receivables are an important part of working capital. For this reason, receivable management needs to be implemented. In general, receivable management includes controlling the amount of receivables, controlling the distribution and collection of receivables, and finally evaluating credit policies managed by the company. Effective credit management can lead to higher receivables turnover, as high receivables turnover must also be matched by rapid collection of receivables otherwise working capital will be restricted for a longer period of time and therefore will result in insufficient working capital available for immediately used in the company’s business cycle to achieve profitability.

Working capital is flexible, because it can be adjusted to the needs of the company’s assets which have three important components, namely cash, accounts receivable and inventory. Cash shows the level of adequacy of the company’s working capital needed to pay bills and finance sales. The higher the cash turnover, the better the profits. In addition, a well-managed receivables turnover will affect the smooth running of assets. If the paid receivables are greater, the profit or profitability will increase. Meanwhile, inventory is property owned by the company to be sold or used for the production process. Good inventory turnover will increase profitability. It can clearly be said, with effective and efficient working capital management which includes the three elements above, the company can increase profitability.

The strong increase in credit sales has led to an increase in the demand for investment funds, therefore, to meet these financing sources, one of the ways companies use external funding sources is debt. Debt includes long-term debt and current debt. Current liabilities come from suppliers through purchases on credit. Credit purchases are intended to minimize interest costs. Repayment of debt will result in an account payable. According to Munawir (2014), current liabilities are defined as financial obligations of a company whose payments are carried out in the short term (a year from the balance sheet date) by utilizing the company’s current assets. However, in using this debt, one must be careful with the risks posed by using the debt. An increase in debt will directly increase interest expense, so the company must be able to cover these costs through operating profit. Significant interest expense will reduce existing operating profit and cause a decrease in net income. Debt management is needed by the Company in an effort to achieve a balance to maintain maximum cash flow by delaying payments as long as possible to maintain positive credit and good relations with suppliers. This gradual payment of debt is called working capital management.

Working capital management (debt management) is one of the prominent financial functions in any organization as it affects liquidity and profitability directly. Debt can be considered as a source of free credit because goods are supplied and services are provided but the payment is made at a later date, either in installments or so on. Delay in payment of this debt results in a more effective debt turnover, higher debt turnover will increase the company’s profitability. To measure how effective the company is in managing its accounts payable, it is calculated using the accounts payable turnover ratio by dividing purchases by the average trade payables (cerdasco.com, 2022).

In addition to receivables, another component is inventory which is the most important part of working capital, and inventory is part of an asset that is always rotating and constantly changing. Inventory is a component of current assets which has the lowest level of liquidity compared to cash and receivables. This is because maintenance is very necessary and there is a possibility of loss due to damage, and there can be a decrease in quality which can reduce company profits which have an impact on company profitability. Meanwhile, very small inventories also have an effect on suppressing profits or reducing company profitability due to material shortages, for this reason, it is necessary to have inventory management to support the production process or smooth operations, so that raw materials and goods are in process. must always be available at all times to ensure the survival of the company.

Inventory turnover shows the number of times inventory is replaced in a year and the inventory is kept in the warehouse. Inventory turnover according to Husaini, et al (2014), is a ratio to measure the efficiency of inventory management. This ratio is a fairly general indicator of operational efficiency, showing how much control management has over existing capital. According to Mamduh (2009), "Inventory turnover can be calculated by dividing the cost of goods sold by the average inventory". If a company can manage inventory well, then the company can immediately change the inventory stored through sales which will generate profits.

Management must be able to plan and control the company’s liabilities and assets so as to minimize the risk of the company becoming bankrupt. Without proper asset management, organizational or individual goals will not be achieved optimally. Management of current assets and current liabilities is part of current account management. According to Syamsuddin (2011), working capital management is related to the management of the company's current account, namely current assets and current liabilities. Working capital management is one of the most important aspects of overall business expense management. If the company cannot maintain a satisfactory level of working capital, the company will be at a disadvantage.
Figure 1. Thought Framework

Financial statements are important because they provide information that can be used for decision making. Financial statements are information that contains the company’s financial position and results. To find out more information contained in financial statements, it is necessary to analyze financial statements.

According to Munawir (2014), when analyzing and assessing financial position, progress and future potential, the main factors that analysts often pay attention to are liquidity, solvency and profitability.

Financial ratio analysis can help business people, especially those in the manufacturing industry.

The pharmaceutical sub-sector manufacturing company is one that is able and can survive in the midst of the economic crisis that hit Indonesia and the world as a result of the global COVID-19 pandemic, and pharmaceutical companies are an industry that is able to survive and thrive during the COVID-19 pandemic, due to the needs of the community of medical devices, pharmaceuticals and drugs, experienced a significant increase.

Research related to financial ratio analysis has been carried out by Dodokerang et al (2018), whose research results show that simultaneously CTA, RTO and ITO have no significant effect on profitability (ROA). Partially CTA has a significant effect on ROA, RTO has a negative but not significant effect on profitability (ROA). And ITO has a positive but not significant effect on profitability (ROA). the results of research conducted by Mardiana and Mayang Murni (2018) show that partially CTO and RTO have a significant effect on profitability, while ITO does not. Simultaneously CTO, RTO and ITO have a significant effect on profitability. While the results of research conducted by Arkha Sanjaya (2014) The results of the analysis show that RTO, PTO and ITO simultaneously have a significant positive effect on ROE, while partially RTO has an insignificant positive effect, PTO has a significant negative effect, while ITO has a significant positive effect on ROE. Based on the contradiction between previous research (research gap) and existing phenomena, the researcher argues that further research is needed to examine "The Effect of Receivables, Debt and Inventory Management on Profitability of Pharmaceutical Sub-Sector Companies Listed on the Indonesia Stock Exchange (IDX) for the 2017–2021 Period".

By looking at this background, the formulation of the problem in this study is as follows:

a. Does the management of accounts receivable affect the level of profitability?
b. Does the management of payable affect the level of profitability?
c. Does the management of inventory affect the level of profitability?
d. Does the management of accounts receivable, payable and inventory together affect the level of profitability?

The aim of this research is:

a. To determine the effect of Receivable Turnover (RTO) on the level of Return on Equity (ROE) in pharmaceutical manufacturing companies.
b. To determine the effect of Payable Turnover (PTO) on Return on Equity (ROE) in pharmaceutical manufacturing companies.
c. To determine the effect of Inventory Turnover (ITO) on the Return on Equity (ROE) in pharmaceutical manufacturing companies.
d. To determine the effect of Receivable Turnover (RTO), Payable Turnover (PTO), and Inventory Turnover (ITO) on Return on Equity (ROE) in pharmaceutical manufacturing companies.

Method

Based on the background and the results of previous studies, in this study the authors will examine the effect of Receivable Turnover (RTO), Payable Turnover (PTO) and Inventory Turnover (ITO) on the level of Return on Equity (ROE) of pharmaceutical sub-sector companies listed on the Indonesian Stock Exchange (IDX) for the period of 2017–2021.

This type of research is quantitative research and secondary data. The data is taken from the financial statements and financial ratios of pharmaceutical companies for the period 2017 to 2021 which are listed on the Indonesia Stock Exchange. The source of data in this study is the Indonesian Capital Market Index (ICMD).
The population used in this study were all pharmaceutical sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2021 period, totaling 11 companies. The sampling method is purposive sampling. This type of method is included in the non-probability sampling method. Sample selection was determined by purposive sampling with the aim of obtaining a representative sample in accordance with predetermined criteria, based on predetermined criteria obtained 7 samples of companies that can represent pharmaceutical sub-sector companies.

**Results and Discussion**

**Classic Assumption Test**

Classical assumption test is conducted to assess whether in an Ordinary Least Square (OLS) linear regression model there are classical assumption problems. The classical assumption test in this study was used to determine the relationship between the variables in the regression model. The classical assumption test that is often used is the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test.

**Normality Test**

The normality test was conducted to test whether in the regression model, the confounding or residual variables had a normal distribution or not. The basis for decision making in this study uses a probability plot normality test: according to Ghozali (2011) the regression model is said to be normally distributed if the plotting data (dots) that describe the actual data follow a diagonal line.

The results of the normality test of the regression model are normally distributed because the plotting data (dots) that describe the actual data follow a diagonal line.

**Multicollinearity Test**

According to Ghozali (2011) the multicollinearity test has the aim of testing whether the regression model found a correlation between the independent (independent) variables. The multicollinearity test aims to test whether in a regression model there is a correlation between independent variables. If there is a correlation, it is called a multicollinearity problem (Santoso, 2012). In this study, to detect the presence or absence of multicollinearity in the regression model, by looking at the value of the tolerance value or variance inflation factor (VIF).

The results of the multicollinearity test conducted showed that all the variables (RTO, PTO and ITO) had tolerance values above 0.10 and VIF below 10, so it can be concluded that in all these variables there are no symptoms of multicollinearity.

**Heteroscedasticity Test**

Heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual of one observation to another observation (Ghozali, 2011). To detect the presence or absence of heteroscedasticity, it can be done by looking at the presence or absence of a certain pattern on the scatter plot graph between SRESID and ZPRED, where the Y axis is the predicted Y and the X axis is the residual (Y predicted and Y actually). According to Ghozali (2011) there is no heteroscedasticity if there is no certain pattern (wavy, widening, then narrowing) in the scatterplot image, and the points spread above and below the number 0 on the Y axis.

The results of the heteroscedasticity test research that has been carried out, using scatterplot images do not show certain patterns formed in the scatterplot image, but the points spread above and below the number 0 (zero) and the Y axis. So, it can be concluded that there are no symptoms of heteroscedasticity.

**Autocorrelation Test**

The multiple regression equation model in this study is used to determine the effect of receivable turnover, payable turnover and inventory turnover on return on equity.

From the tests that have been carried out, it can be determined the regression equation based on column B in the Coefficients table which is the regression coefficient for each variable. So, the regression equation is as follows:

\[ \text{Return on Equity} = 0.038 - 0.020 \text{RTO} + 0.006 \text{PTO} + 0.052 \text{ITO} \]

The regression equation above can be explained as follows:

a. A constant of 0.038 means that if the value of \( X_1, X_2, X_3 \) is 0 then the value of Return on Equity is 0.038
b. The regression coefficient of the \( X_1 \) variable is -0.020 indicating that \( X_1 \) has a negative regression coefficient, which means that if \( X_1 \) is increased by 1%, the Return on Equity value will decrease by 0.020% with the assumption that the other independent variables have a fixed value.
c. The regression coefficient of the $X_2$ variable is 0.006 indicating that $X_2$ has a positive regression coefficient direction, which means that if $X_2$ is increased by 1%, the Return on Equity value will increase by 0.006% with the assumption that the other independent variables have a fixed value.

d. The regression coefficient of the $X_3$ variable of 0.052 indicates that $X_3$ has a positive regression coefficient direction, which means that if $X_3$ is increased by 1%, the Return on Equity value will increase by 0.052% with the assumption that the other independent variables have a fixed value.

**Determination Coefficient Test**

The coefficient of determination test is an analysis used to determine how much influence the independent and dependent variables have.

Based on the "Model Summary" output table, it is known that the coefficient of determination or R Square is 0.489. The value of R Square of 0.489 comes from squaring the value of the correlation coefficient or "R", which is $0.699 \times 0.699 = 0.489$. The magnitude of the coefficient of determination (R Square) is 0.489 or equal to 48.9%. This figure means that the variables RTO ($X_1$), PTO ($X_2$) and ITO ($X_3$) simultaneously (together) affect the ROE ($Y$) variable by 48.9%. While the rest (100% − 48.9% = 51.1%) is influenced by other variables outside this regression equation or variables that are not studied.

**T-test**

The t-test is used to determine the ability of each independent variable individually (partial) in explaining the behavior of the dependent variable (Ghozali, 2011). The t-test was conducted to determine the partial significance of the role of the independent variable on the dependent variable by assuming that the other independent variables were considered constant.

From the results of the Partial Test that has been carried out based on the significance value (Sig.), it is known that:

- a. The significance value of receivable turnover ($X_1$) is 0.003. Because the value of Sig. $0.003 \leq 0.05$ probability, it can be concluded that H1 or the first hypothesis is accepted. This means that receivable turnover ($X_1$) has an effect on return on equity ($Y$).
- b. The significance value of payable turnover ($X_2$) is 0.003. Because the value of Sig. $0.003 \leq 0.05$ probability, it can be concluded that H2 or the first hypothesis is accepted. This means that payable turnover ($X_2$) has an effect on return on equity ($Y$).
- c. The significance value of inventory turnover ($X_3$) is 0.000. Because the value of Sig. $0.000 \leq 0.05$ probability, it can be concluded that H3 or the third hypothesis is accepted. This means that inventory turnover ($X_3$) has an effect on return on equity ($Y$).

**F-test**

The F-test is used to determine whether the independent variables simultaneously have a significant effect on the dependent variable. In this study, 2 (two) approaches are used as a reference to test the hypothesis in the F test, namely based on the Significance Value (Sig.) and the comparison of the F-count value with the F-table.

From the results of the Simultaneous F test that has been carried out, it shows:

- a. Based on the Significance Value (Sig.) of the Anova output
  Given the value of Sig. of 0.000, because Sig. $0.000 \leq 0.05$, it can be concluded that H0 is accepted or in other words receivable turnover ($X_1$), Payable turnover ($X_2$) and inventory turnover ($X_3$) simultaneously affect return on equity ($Y$).
b. Based on Comparison of Calculated F Value with F Table

From the table of F test results above, it is known that the calculated F value is 9,880 ≥ F table 2,92, it can be concluded that H0 is accepted or in other words receivables turnover (X₁), Payable turnover (X₂) and inventory turnover (X₃) simultaneously affect the return on equity (Y).

Discussion

Table 1. Summary of Research ResultsPharmaceutical Companies, tahun 2017-2021

<table>
<thead>
<tr>
<th>Hypotesis</th>
<th>Partial</th>
<th>Simultan</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-test</td>
<td>Sig.</td>
<td>F-test</td>
<td>Sig.</td>
</tr>
<tr>
<td>Constants</td>
<td>0,793</td>
<td>0,434</td>
<td>-</td>
</tr>
<tr>
<td>H1</td>
<td>-3,231</td>
<td>0,003</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>1,65</td>
<td>0,109</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3</td>
<td>5,222</td>
<td>0</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>-</td>
<td>9,88</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Source: Data Processing 2022

The Effect of Receivable Turn Over on Return on Equity

From this research, it is known that the receivable turnover (RTO) variable has a t-count value of -3,231 ≥ a t-table value of 2,040 and a significant receivable turnover (RTO) value of 0,003 ≤ a probability value of 0,05. Based on these results, it can be concluded that the receivable turnover (RTO) variable has a negative effect on return on equity (ROE). This means that H1 or the first hypothesis of this study is accepted.

The higher the company’s receivables turnover, the better the management of its receivables. Accounts receivable turnover can be increased by tightening credit sales policies, for example by reducing payment terms. However, it is a bit difficult to implement this policy, because if the credit sales policy is tightened, it is likely that sales will decline, which is not very good for the company and vice versa.

In this study, accounts receivable turnover has a significant negative effect on profitability because effective receivable management is determined by using the accounts receivable turnover ratio to show how often receivables are rotated during a period. business from the number of times receivables is turned into cash that will be used in investments to increase company profits.

The results of this study are in line with previous research conducted by Dodokerang et al (2018) with the title "Analysis of Working Capital Turnover on Profitability in Pharmaceutical Companies Listed on the IDX for the period 2012-2016", which states that RTO has a negative effect on profitability (ROA).

The Effect of Payable Turn Over on Return on Equity

From this research, it is known that the payable turnover (PTO) variable has a t-count value of 1,650 ≤ a t-table value of 2,040 and a significant value of payable turnover (PTO) of 0,109 ≤ a probability value of 0,05. Based on these results, it can be concluded that the Payable turn over (PTO) variable has no effect on return on equity (ROE). This means that H2 or the second hypothesis of this study is rejected.

In this study, accounts payable turnover has no significant effect on profitability because the level of trade payable turnover does not directly affect the company’s profitability. The longer the company delays the payment of indirect trade payables, it can increase the company’s profit because the existing cash is used to make other investments so that later these investments can increase company profits.

The results of this study are contrary to previous research conducted by Sanjaya (2014) with the title "The Effect of Receivables, Debt and Inventory Management on Profitability in Food & Beverages Sector Companies Listed on the IDX for the period 2009-2013", which states that PTO has a negative influence that significant to ROE

The Effect of Inventory Turn Over on Return on Equity

From this research, it is known that the Inventory Turnover (ITO) variable has a t-count value of 5,222 ≥ a t-table value of 2,040 and a significant inventory turnover (ITO) value of 0,000 ≤ a probability value of 0,05. Based on these results, it can be concluded that the variable inventory turnover (ITO) has a positive effect on return on equity (ROE). This means that H3 or the third hypothesis from this study is accepted.

Inventory turnover according to Husaini, et al (2014), is a ratio to measure the efficiency of inventory management. This ratio is a fairly general indicator of operational efficiency, showing how much control management has over
existing capital. According to Harahap (2013), the larger this ratio, the better because the company is considered effective in managing its assets.

In this study, inventory turnover has a significant positive effect on profitability (ROE), because high inventory turnover indicates that the company is considered effective in managing its assets (inventory). Efficient inventory and appropriate orders can produce optimal levels of profitability.

The results of this study are in line with previous research conducted by Kamaliah, et al (2009) with the title "Analysis of the Effect of Activity Ratios, Financial Leverage, Company Size, and Company Age on Profitability of Wholesale and Retail Companies Listed on the IDX for the period 2003-2007", which states that PTO has a significant effect on ROE.

The Effect of Receivable Turnover, Payable Turnover, and Inventory Turnover on Return on Equity
It is known that in this study receivable turnover (RTO), Payable turnover (PTO) and inventory turnover (ITO) have a value of Sig. of 0.000 $\leq$ probability value of 0.05, and also has an $F_{\text{count}}$ of 9,880 $\geq$ $F_{\text{table}}$ of 2.92. Based on these data, it can be concluded that receivable turnover (RTO), payable turnover (PTO) and inventory turnover (ITO) simultaneously or jointly affect return on equity (ROE).

Based on the results of research data processing that has been described, it can be seen that ROE is influenced by receivable turnover (RTO), Payable turnover (PTO) and inventory turnover (ITO) simultaneously (simultaneously).

Receivable turnover (RTO), Payable turnover (PTO) and inventory turnover (ITO) together (simultaneously) have an effect on Return on Equity (ROE) of 48.9% (R Square 0.489, table 4.11) while the remaining 51.1% (100% - 48.9%) is influenced by other factors that are not disclosed or not investigated in this study.

Conclusion
Based on the results of research on the effect of managing accounts receivable, payable and inventory on profitability (Return on Equity) in pharmaceutical sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the 2017–2021 period, it can be concluded that:

a. Receivable Turnover (RTO) partially has a negative effect on Return on Equity (ROE).

b. Payable Turnover (PTO) partially has no effect on Return on Equity (ROE).

c. Inventory Turnover (ITO) partially has a positive effect on Return on Equity (ROE).

d. Receivable Turnover (RTO), Payable Turnover (PTO) and Inventory Turnover (ITO) simultaneously have a positive influence on Return on Equity (ROE).

References


