DETERMINANTS OF NET PROFIT MARGIN IN AICO ENERGY TECHNOLOGY, PT IN BALIKPAPAN

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ABSTRACT

This study aims to determine the low Net Profit Margin at Aico Energy Technology, PT in Balikpapan. The variable used is Net Profit Margin as the dependent variable, while the independent variables are Cash Turnover (X1), Accounts Receivable Turnover (X2), and Inventory Turnover (X3). Using a sample of financial statements for seven years, this research used SPSS software tools, the data analysis method was carried out with multiple linear regression models, classical assumptions, and hypothesis testing (Simultaneous Test, Partial Test, Correlation Coefficient Test and Determination). Based on the results of the f-test showed that Cash Turnover (X1), Accounts Receivable Turnover (X2), and Inventory Turnover (X3) simultaneously affect the Net Profit Margin at Aico Energy Technology, PT Balikpapan. Partially Cash Turnover (X1) does not have a significant effect on Net Profit Margin. Accounts Receivable Turnover (X2) has a significant effect on Net Profit Margin, Inventory Turnover variable (X3) has a significant effect on Net Profit Margin at Aico Energy Technology, PT Balikpapan.

Keywords: Cash Turnover; Inventory Turnover; Net Profit Margin; Receivables Turnover

INTRODUCTION

Profitability is the ability of a company to generate profits for a certain period. Profitability can show how well the company maintains its survival or develops its business in the future. The higher the level of a company's profitability ratio, the better the company is in generating profits. This indicates that the company has a good performance in maintaining its survival and the possibility of business expansion in the future. (Diana & Santoso, 2016) "Profitability shows the ability of capital invested in all assets to generate profits for investors. Profitability is a factor that is considered in determining a company's capital structure."

In profitability, there are several types, namely Return On Investment (ROI), Return On Assets (ROA), Return On Equity (ROE), Gross Profit Margin, Operating Profit Margin and Net Profit Margin (NPM). In this study, researchers took the type of Net Profit Margin (NPM). (Anggiyani et al., 2020) “Net profit margin is used as a measuring tool for investors to predict profitability in the following year by using sales forecasts made by management. The higher the net profit margin, the investors will be encouraged to invest in the company."
The three components of working capital, namely cash, accounts receivable, and inventories. The three components of working capital can be managed in different ways to maximize profitability or to increase company growth. (C. E. E. Santoso, 2013) stated that “Companies that are able to generate added value or sustainable profits are companies that are able to utilize their working capital effectively and efficiently. Mistakes or ineffective working capital management can cause a decline in the company's operational performance.”

Research on the effect of Cash Turnover on Net Profit Margin was conducted by (Martius, 2018) with the result that Cash Turnover has a significant effect on Net Profit Margin. However, research conducted by (Rolos, 2020) shows different results, namely Cash Turnover has no significant effect on Net Profit Margin.

(Husna & Desiyanti, 2016) The result found that coefficient of determination value was 0.187. This value proved that independent variables such as Current Ratio, Leverage, and Sales Growth contribute in affecting the Net Profit Margin that is equal to 18.7% and the remaining 81.3% is influenced by other variables. The conclusion of this study showed that Leverage positive effect on Net Profit Margin with regression coefficient equal to $-0.368$ with a significant level of $0.023 < 0.05$. While the Current Ratio and Growth does not found significantly influence the Net Profit Margin of Coal Company.

Subsequent research on the effect of Accounts Receivable Turnover on Net Profit Margin was conducted by (C. E. E. Santoso, 2013) with the result that Accounts Receivable Turnover has a significant effect on Net Profit Margin. However, research conducted by (Martius, 2018) shows different results, namely Accounts Receivable Turnover has no significant effect on Net Profit Margin.

Subsequent research on the effect of Inventory Turnover on Net Profit Margin was carried out by (Juliana & Sidik, 2020) with the result that Inventory Turnover has a significant
effect on Net Profit Margin. However, research conducted by (Hasan et al., 2020) and (Anggiyani et al., 2020) shows different results, namely Inventory Turnover has a negative and significant effect on Net Profit Margin.

Based on the phenomena, problems in the company and the research gap above, the authors are interested in conducting research with the title: "Determinates of Net Profit Margin at PT. Aico Energy Technology in Balikpapan”.

LITERATURE REVIEW

Accounting is the process of identifying, measuring, and conveying economic information as information material in terms of considering various alternatives in drawing conclusions by the users. (Harahap, 2018).

(Suraya, 2018), Partially (t-test) obtained receivables turnover (X1) has no effect but is not significant on Net Profit Margin, while inventory turnover (X2) has an effect but not significantly on Net Profit Margin (Y). Simultaneously (test f) obtained Receivables Turnover (X1) and inventory turnover (X2) have a significant effect on Net Profit Margin. Based on the results of R2 the independent variable Accounts receivable turnover and inventory turnover have an effect of 80.1% on the dependent variable that is Net Profit Margin, while the remaining 19.9%, is influenced by other variables not examined in the study.

(Daryanto & Rachmanto, 2018), The results based on multiple linear regression tests showed that simultaneously turnover of account receivable and working capital turnover did not significant affect to net profit margin. Partially, the account receivable turnover does not sig. affect net profit margin and the working capital turnover does not significantly affect the net profit margin of the company. So, it can be said the hypothesis in this study was rejected.

Stock turnover is a ratio used to regulate the number of times the funds invested in this inventory are rotated in one period. It can also be interpreted that inventory turnover is a ratio that shows how many times the number of preparations is replaced in one year (Kasmir, 2017: 182).

(Rehman et al., 2014), The paper encompasses six variables, namely, Creditors’ Velocity (CRSV), Debtors’ Turnover Ratio (DTR), Inventory Turnover Ratio (ITR), Long-Term-Debt to Equity Ratio (LTDER), Total Assets Turnover Ratio (TATR) and Net profit Margin (NPM). Profitability as a dependent variable is exhibited by Net profit Margin (NPM) while the select ratios (CRSV), (DTR), (ITR), (LTDER), (TATR) are expressed as independent variables. Based on the findings of the study, it is cogently revealed that there is a significant relationship between the four selected ratios and Net Profit Margin (NPM) of Petrochemical companies in Saudi Arabia.
(Mapanyuki & Sari, 2017), Partially Sales Growth Ratio (SGR) had no significant effect on Return On Assets and Net Profit Margin, Return On Equity significant effect on Sales Growth Ratio (SGR) Inventory Turnover Ratio partially no effect on Return on Assets and Return on Equity, Net Profit Margin significant effect on Inventory Turnover Ratio. Growth Opportunity (GWOP) partially not have a significant effect on Return On Assets, Net Profit Margin, and Return On Equity.

Net Profit Margin is the ratio used to measure the percentage of net income on net sales. This ratio is calculated by dividing net income against net sales. Net income itself is calculated as a result of deduction between profit before tax and income tax expense. Profit before income tax is operating profit plus other income and gain, then deducted by other expenses and losses. (Hery, 2017: 198).

(Shahnia et al., 2020), The results of this study indicate that CR and DAR partially negatively affected ROA, and ROE had a positive effect on ROA, while NPM and TATO had no effect on ROA. Overall testing shows that all financial factors had a significant effect and contribute to explain changes in profitability of 89.6 percent.

Cash turnover is a ratio that serves to measure the level of the company's working capital adequacy needed to pay bills and finance sales. This means that this ratio is used to measure the level of cash availability to pay bills (debt) and costs related to sales (Kasmir, 2017: 142).

Receivable’s turnover shows the period of working capital tied up in accounts receivable where the faster the turning period shows the faster the company will benefit from the sale of the credit, so the company's profitability also increases. The higher the accounts receivable turnover rate of a company, the better its receivables management indicates a good return on profits (Riyanto, 2013: 90).

Inventory turnover is a ratio used to measure the number of times the funds invested in inventory will rotate in a period or how long the average inventory is stored in the warehouse until it is finally sold (Hery, 2017: 182). (Nurlia & Sukimin, 2020) stated that F test results show that the Turnover of Accounts Receivable, Total Asset Turnover and Turnover of Working Capital have a simultaneous effect on the Net Profit Margin of Non-Bank Financing Institutions Listed on the Indonesia Stock Exchange. The t test results show the Turnover of Accounts Receivable, and Total Asset Turnover has a positive and insignificant effect on the Net Profit Margin of the Non-Bank Financing Institutions Listed on the Indonesia Stock Exchange Working Capital Turnover has a negative and significant and dominant effect on the Net Profit Margin of the Non-Bank Financing Institutions Listed on the Indonesia Stock Exchange. (Nurafika, 2018), the results show that the variable receivables turnover has no significant negative effect on profitability, cash turnover and inventory turnover have a
significant positive effect on profitability in cement companies listed on the Indonesia Stock Exchange from 2012 to 2016.

(Rolos, 2020), The results show that simultaneously cash turnover, accounts receivable turnover, inventory turnover and working capital turnover have a significant effect on net profit margin. Partially, cash turnover has no significant effect on net profit margin. The advice given to company management is to pay attention to the level of sales, because the higher the level of sales will increase profits and the company is also expected to be able to maintain cash efficiently in order to produce a high rate of cash turnover. (Juliana & Sidik, 2020), The results of the research simultaneously show that cash turnover and accounts receivable turnover have a positive and significant effect of 51.1% on profitability and the remaining 48.1% are influenced by other variables not.

METHODS

Sample taken is the financial statements of Aico Energy Technology, PT Balikpapan for the period 2015-2020 (7 years) which consists of Financial Position Report and Profit and Loss Report.

Data collection

1. The documentation technique is data collection which is done by studying documents from the company or data related to the purposes of this research.

2. Literature study, namely by reading some literature books that have something to do with the research theme and title. In terms of using theories to discuss existing problems.

Measures

To simplify calculations, the researchers used SPSS (Statistical Product and Service Solutions) software tools. Mathematically, the multiple linear regression model in this study is as follows:

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon \]

RESULTS

<table>
<thead>
<tr>
<th>Model Variable</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.264</td>
<td>0.163</td>
</tr>
<tr>
<td>Cash Turnover (X1)</td>
<td>-0.003</td>
<td>0.002</td>
</tr>
<tr>
<td>Accounts Receivable Turnover (X2)</td>
<td>0.013</td>
<td>0.005</td>
</tr>
<tr>
<td>Inventory Turnover (X3)</td>
<td>0.007</td>
<td>0.007</td>
</tr>
</tbody>
</table>

Source: Data Processed SPSS ver. 25.00
Based on the results of data analysis using SPSS 25.0 presented above, it is obtained multiple linear regression equations for Aico Energy Technology, PT Balikpapan as follows

\[ Y = 0.246 - 0.003 X_1 + 0.013 X_2 + 0.007 X_3 \]

**Hypothesis Testing Results**

1. **Simultaneous Test (f Test)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>0.003</td>
<td>3</td>
<td>0.001</td>
<td>13.374</td>
<td>0.002b</td>
</tr>
<tr>
<td>Residual</td>
<td>0.000</td>
<td>3</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0.003</td>
<td>6</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Data Processed SPSS ver. 25.00*

2. **Partial Test (t test)**

<table>
<thead>
<tr>
<th>Model Variable</th>
<th>Standardized Coefficient</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td>3.820</td>
<td>0.003</td>
</tr>
<tr>
<td>Cash Turnover (X1)</td>
<td></td>
<td>-0.402</td>
<td>-1.815</td>
</tr>
<tr>
<td>Accounts Receivable Turnover (X2)</td>
<td></td>
<td>0.261</td>
<td>4.037</td>
</tr>
<tr>
<td>Inventory Turnover (X3)</td>
<td></td>
<td>0.813</td>
<td>3.608</td>
</tr>
</tbody>
</table>

*Source: Data Processed SPSS ver. 25.00*

3. **Correlation Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.851a</td>
<td>0.756</td>
<td>0.680</td>
<td>0.01771</td>
</tr>
</tbody>
</table>

*Source: Data Processed SPSS ver. 25.00*

Seen the value of the correlation coefficient \( R = 0.861 \). This shows a strong relationship between the independent variables, namely Cash Turnover (X1), Accounts Receivable Turnover (X2) and Inventory Turnover (X3). This means that this study shows a strong relationship, because the value of the multiple correlation coefficient is 0.861 close to 1.

The value (R2) in this study was 0.755. This means that the influence of the independent variables, namely Cash Turnover (X1), Accounts Receivable Turnover (X2) and Inventory
Turnover (X3) on the dependent variable, namely Net Profit Margin, is 75.5%, while the rest is influenced by other factors not included in the study.

a. Correlation Coefficient Test (R) and Determination (R2)

The R value in this study is 0.861, meaning that the correlation between the independent variables, namely Cash Turnover (X1), Accounts Receivable Turnover (X2) and Inventory Turnover (X3) has a strong and positive relationship with the Net Profit Margin (Y) variable, this is shown by an R value that is close to a value of 1.

The small value of R2 means that the ability of the independent variables to explain the dependent variables is limited. A value close to one means that the independent variables provide almost all the information needed to predict the variance of the dependent variables. In addition, the coefficient of determination (R2) can be used to determine the amount of change in the dependent variable (Y) caused by the independent variable (X). The value (R2) in this study was 0.755. This means that the effect of the independent variables, namely Cash Turnover (X1), Accounts Receivable Turnover (X2), and Inventory Turnover (X3) on the dependent variable, namely Net Profit Margin, is 75.5%, while the rest is influenced by other factors.

b. Simultaneous Test (F-Test)

To test the first hypothesis, namely to test whether or not there is an effect of Cash Turnover (X1), Accounts Receivable Turnover (X2), and Inventory Turnover (X3) simultaneously on the Net Profit Margin of Aico Energy Technology, PT Balikpapan, then tested using the F test on the ANOVA table. It can be seen that the F count value is 13.375 with a significance level of 0.002. While the value of F table is 9.28. From testing the first hypothesis it can be compared F count of 13.375 with F table of 9.28, which means F count> F table with a significance level of 0.002 <0.05, it can be concluded that Cash Turnover (X1), Accounts Receivable Turnover (X2), and Inventory Turnover (X3) simultaneously affect the Net Profit Margin at Aico Energy Technology, PT Balikpapan. That way the author's first hypothesis can be accepted as true.

From the results of this study, variables have similarities with the research of (Rolos, et al., 2014), which states that simultaneously cash turnover, accounts receivable turnover, and inventory turnover have a significant effect on net profit margin.

c. Partial Test (t-test)

The second, third and fourth hypothesis testing is to perform t-test on each variable to determine the effect of each variable Cash Turnover (X1), Accounts Receivable Turnover (X2), and Inventory Turnover (X3) partially on the Net Profit Margin variable (Y) at Aico Energy Technology, PT Balikpapan.

1) Effect of Cash Turnover on Net Profit Margin
The cash turnover variable (X1) in the coefficients table has at count of -1.815 < t table of 3.182 with a significance level of 0.312 > 0.05. So, the conclusion that can be drawn is Cash Turnover (X1), partially does not have a significant effect on Net Profit Margin at Aico Energy Technology, PT Balikpapan. Thus, the second hypothesis proposed by the author is rejected. From the research results indicate that, Cash Turnover is not able to increase the Net Profit Margin at Aico Energy Technology, PT in Balikpapan is caused because the cash owned by the company is not managed optimally in each period, which causes too much cash to be retained and not used, therefore it is not able to increase the Net Profit Margin. The results of this study have similar variables with the research of (Rolos, 2020), namely that cash turnover partially does not have a significant effect on Net Profit Margin.

2) Effect of Accounts Receivable Turnover on Net Profit Margin

Accounts Receivable Turnover (X2) in the coefficients table has a t count of 4.037 > t table of 3.182 with a significance level of 0.033 < 0.05. So, the conclusion that can be drawn is Accounts Receivable Turnover (X2), partially has a significant effect on Net Profit Margin at Aico Energy Technology, PT Balikpapan. With that the third hypothesis proposed by the author is accepted as true. From the research results show that, Accounts Receivable Turnover is able to increase the Net Profit Margin at Aico Energy Technology, PT Balikpapan because the receivables owned by the company can be collected smoothly at each period, so that it quickly turns into cash, therefore it is able to increase the Net Profit Margin. The results of this study have similar variables with the research of (B. Santoso et al., 2017), (Inastia & Wardhana, 2018), (Anggraini, 2020) namely that accounts receivable turnover partially has a significant effect on Net Profit Margin.

3) Effect of Inventory Turnover on Net Profit Margin

The Inventory Turnover variable (X3) in the coefficients table has a t count of 3.608 > t table of 3.182 with a significance level of 0.026 < 0.05. So, the conclusion that can be drawn is Inventory Turnover (X3), partially has a significant effect on Net Profit Margin at Aico Energy Technology, PT Balikpapan. With so the fourth hypothesis proposed by the author is accepted as true. From the research results indicate that, Inventory Turnover is able to increase the Net Profit Margin at Aico Energy Technology, PT Balikpapan, because the inventory is managed optimally from warehouse inventory to be sold in each period, therefore it is able to increase Net Profit Margin.
The results of this study have similar variables with the research of (Inastia & Wardhana, 2018), (R. A. Santoso, 2012) which states that Inventory Turnover partially has a significant effect on Net Profit Margin.

CONCLUSION

Simultaneously the Cash Turnover, Accounts Receivable Turnover, and Inventory Turnover variables have a significant effect on Net Profit Margin. Partially the Cash Turnover variable has no significant effect on Net Profit Margin. Cash Turnover is not able to increase the Net Profit Margin because the cash owned by the company is not managed optimally in each period, which causes too much cash to operate and is not used, therefore it is not able to increase the Net Profit Margin. From the research results, the average cash flow of Aico Energy Technology, PT Balikpapan is low enough so that it has an impact on low cash turnover. Partially the Accounts Receivable Turnover has a significant effect on Net Profit Margin. Partially the Inventory Turnover variable has a significant effect on the Net Profit Margin. It is suggested that the company can manage cash optimally to increase the Net Profit Margin.

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