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Abstract

This study examines how working capital and firm size affect net profit (Empirical Study of Manufacturing Companies in the Consumer Goods Industry Sector, Household Appliances Sub-Sector Listed on the IDX for the 2015 – 2020 period). Multiple linear regression analysis was used to determine the effect of two independent variables on one dependent variable. The population in this study is financial reports published by Manufacturing Companies listed on the IDX in the Consumer Goods Industry Sector, Household Appliances Sub-Sector. The sample was taken for six years, from 2015 to 2020, using the Financial Position Report and Profit and Loss Reports to obtain data, Company Size, Working Capital, and Net Income. According to the study's findings, firm size and working capital both have positive and substantial effects on net profit, with the latter having an influence on net profit that is both positive and significant. Other factors that influence Net Profit but are not analysed include the 83.3% outcome of the Coefficient of Determination and the remaining 16.7%.

Keywords: Company size, working capital, manufacturing companies, household appliances sub-sector, consumer goods industry sector.

1. Introduction

Indonesia has a lot of natural resources. With an abundance of natural resources, many industrial firms have been founded. They operate in diverse places throughout Indonesia to service the requirements of the people while also making a profit. This activity undoubtedly manages natural resources that are still raw and then processed in the manufacturing process to generate domestic and international items needed by the community (Hamzah, 2016).

The actions of industrial or manufacturing firms will undoubtedly impact the national economy's speed because it profits from the sale of its products, the more developed and developed the company, the better the country's economic state. However, the corporate rivalry has become more complex since the global market (global market) implementation. This necessitates businessespeople improving their competencies and developing plans to avoid falling behind companies from other nations and losing out in business competition, let alone similar businesses (wen et al., 2022).

In addition to manufacturing things to make a profit, industrial businesses must also produce goods that serve society and safeguard nature by using natural resources, particularly now that the supply of raw materials is becoming increasingly scarce while meeting human requirements. Companies must manage their assets wisely, effectively, and efficiently to generate profits the opportunity to use a company's assets to make money increases with the size of its assets. Furthermore, because the firm's viability is determined by its size, its assets will be used as collateral to satisfy this duty if the company needs financing from a banking company.

Aside from banks, prospective investors frequently utilize a size analysis of a company's assets as a guide before investing their money. According to Sartono (2008), well-established major enterprises will find it simpler to access financing on the capital market than start-ups. Larger organizations have more freedom as a result of accessibility. The company's size is referred to as the company's size (firm size). According to Brigham and Houston (2010), a company's size can be determined by looking at its total assets, total sales, total earnings, tax expenses, and other factors.
The company must consider the availability of working capital in its operations to achieve profits, in addition to the size of the business. Because a firm needs to manage its working capital effectively to achieve the highest profit. Accordingly, if working capital is used effectively, the anticipated profit will be obtained to find the company, and adequate working capital must be accessible to finance its operations. According to Jumingan (2017), working capital must be accessible in amounts sufficient to support business operations and prevent financial challenges, such as the ability to pay losses and get through emergencies without jeopardizing the company's finances.

Thus, the better the company owns and uses its working capital, the more likely it is to overcome losses, which will obtain the expected profit. Because with sufficient working capital, it is possible that the company will be flexible and have the opportunity to use its funds to finance its operations.

Based on the above, the authors are interested in researching industrial companies because these companies are different from trading and service companies. Industrial companies must have adequate assets and sufficient working capital because the funds' needed start with the provision of raw materials to become goods ready for sale.

This study was done at manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2015 to 2020 in the household appliances subsector of the consumer goods industry. Observations show that the average net profit of each company was unpredictable, and two enterprises experienced losses. This author assumes that the company is still at its best in correctly executing operations management, and some elements may contribute to the instability of the company's earnings.

These elements end up being the root of the business's net profit. Because it is likely to obtain the anticipated profit with efficient operations management, in contrast to using incorrect control, this will provide a low net profit, and even losses could happen. The Covid-19 pandemic, which hit worst in 2020 when the economy was shaky, forced many businesses to consider how they would survive this global menace seriously.

Every period's financial statements will reflect the acquisition level of profit, and when these financial statements are evaluated, it may be determined if yield has climbed or reduced. The company believes that, even though its assets do not change each year significantly, it has yet to utilize them to their full potential. The researcher's estimate supports this belief that the company's average working capital availability tends to decline.

Additionally, working capital impacts net profit in addition to firm size. According to Kasmir (2016), the concept of working capital generally encompasses a functional concept. This idea of function stresses how money is used to generate income or profit. The company owns and operates a variety of funds intending to boost business earnings. Earnings should rise as working capital expenditures rise, and vice versa; as working capital expenditures fall, profits also fall. In practice, though, this is only sometimes the case.

The expert mentioned above opinions and pertinent prior research support the authors' contention that working capital and company size can affect net income. The Effect of Company Size and Working Capital on Net Profit (Empirical Study of Manufacturing Companies in the Consumer Goods Industry Sector, Household Appliances Sub Sector Listed on the IDX for the 2015 - 2020 period) is a study that the author is interested in conducting.

2. Literature Review

2.1. Company Size

In general, company size or firm size is a comparison of the size of a company as measured by the total assets it owns. According (Kalbuana et al., 2017), size is the amount of wealth owned by a company. Furthermore, still in Nawang Kalbuana et al., according to Ramadan, the level of investor confidence can also be measured by size. The bigger the company, the more it is known by the public, which means it is easier to obtain information that will increase its value.

According to Slamet (2016), it is easier for well-established large companies to obtain capital in the capital market than small companies. Because that ease of access means larger companies have greater flexibility.

In measuring the firm size of a company, Total Assets are used as a reflection of the size of the company, the larger the assets, the bigger the company. States that the size of assets is used to measure the size of the company, and the size of these assets is calculated as the logarithm of total assets. So in this study, the authors use a formula to analyze company size, namely:

\[
\text{Compsny Size} = \ln \text{Total Assets}
\] (1)

2.2. Working capital

The first is that gross working capital is all current assets, while net working capital is the excess of existing assets over current debt. To calculate working capital, use the following formula: existing assets less short-term debt.

\[
\text{Capital} = \text{Current Assets} - \text{Short - term debt}
\] (2)

Source: Zahara and Zannati, (2018)
Furthermore, Sujarweni measures working capital, namely current assets minus current liabilities, with the following formula:

$$Working\ capital = Current\ Assets - Current\ Liabilities$$ (3)

Based on the variables mentioned above, the authors of this study will calculate working capital as current assets minus current liabilities.

2.3. Net profit

Surtikanti, (2020) states that profit is the amount that can be given to all ordinary shareholders of the parent (who have control or not). According to Harahap, (2011) that profit is the excess of income over costs during an accounting period. At the same time, the notion of profit observed by the current accounting structure is the difference in the measurement of income and costs.

According to PSAK 23 (revised 2010), profit is income is the gross inflow of economic benefits arising from the everyday activities of an entity during a period if the inflows result in an increase in equity that is not derived from contributions from investors. According to Kasmir (2016), the definition of net profit (Net Profit) is profit that has been deducted from costs that burden the company in a certain period, including taxes.

According to Purnama and Yani, (2023), net profit is calculated by subtracting income tax from net profit before tax:

$$Net\ profit = profit\ before\ tax - income\ tax$$ (3)

Note:

- **Profit before tax** = Operating profit plus operating results and deducting expenses other than ordinary operations.
- **Income Tax** = Income tax that the company must pay.

The framework for this study, which examines how working capital and company size affect net profit, can be characterized as a research paradigm scheme as follows:

![Figure 1: Research paradigm chart](image)

According to the reasoning given above and the current state of mind, the researcher attempts to create the following study hypothesis:

- **H1**: Net Profit in Manufacturing Companies in the Consumer Goods Industry Sector, Household Appliances Sub-Sector listed on the IDX for the 2015–2020 period is partially influenced by company size.
- **H2**: Manufacturing companies listed on the IDX for 2015–2020 in the consumer goods industry sector, the household appliances subsector see some net profit impact from working capital.
- **H3**: Company size and working capital simultaneously affect the net profit of manufacturing companies in the consumer goods industry sector and the household appliances sub-sector, which are listed on the IDX for the 2015-2020 period.

3. Methods of Research

Because this research reveals the state of the problems that occurred when this research was conducted and the data used emphasizes numerical data, the method used in this research is a survey study with a descriptive method and a quantitative approach.
According to Sugiyono in his book Quantitative, Qualitative, and R&D Research Methods (2015), population is a generalization area consisting of objects or subjects with specific qualities and characteristics determined by researchers to study and then draw conclusions. The study's population was financial reports from Manufacturing Companies Listed on the Indonesia Stock Exchange in the Consumer Goods Industry Sector, Household Appliances Sub-Sector.

Sugiyono's book entitled Quantitative, Qualitative, and R&D Research Methods (2015) states, "the sample is part of the population's number and features." Purposive sampling was utilized in this work, or with particular considerations. As a result, the data is derived from financial reports covering five years, namely 2015-2020. The following are the factors (criteria) employed by the researchers in this study:
  a. Samples that are only connected to the variables under consideration.
  b. Access to sampling data. The information is collected from the Balance Sheet and Profit/Loss Report.
The following analytical methods were employed in this study:

Multiple linear regression analysis is a linear relationship between two or more independent variables () and the dependent variable (Y) to predict the value of the dependent variable if the value of the independent variable increases or decreases, as stated by Sugiyono (2007) in his book Statistics for Research, which argues that: "Multiple regression analysis is used when a researcher wants to predict how the condition (increase/decrease) of two or more independent variables as predictor factors will change (up and down the value). If the number of independent variables is at least two, a multiple regression analysis will be performed ".

Multiple correlation analysis is used to determine the strength of the causal relationship between company size and net profit, as well as working capital and net profit.

After determining the correlation coefficient, the coefficient of determination is calculated using the following formula:

\[ KD = R^2 \times 100\% \]  

(4)

Note:
KD stands for the coefficient of determination. R2 is the squared correlation coefficient.
The following criteria are used to analyze the coefficient of determination:
  The influence of the independent variable on the dependent variable is weak if KD is near zero (0).
  The influence of the independent variable on the dependent variable is substantial if the KD is near one (1).

"The hypothesis is a temporary answer to the research problem formulation, where the research problem formulation has been provided in the form of a question sentence," writes Sugiyono (2015: 64) in his book Quantitative, Qualitative Research Methods for R&D. Whether or if the independent factors have an impact on the dependent variable will be the subject of the study's hypothesis. Ho then has no discernible effect, while Ha exhibits a relationship between the independent and dependent variables.

to determine the significance of the relationship between Company Size and Net Income on an individual basis, the statistical t-test is performed. This test is carried out through comparison.

Make judgments regarding whether or not the hypothesis is accepted after computing the value of the count and comparing the count and table with the test conditions as follows:
  1. Ho is rejected, while Ha is approved if the t-count exceeds the t-table at a value of 5%. (effect).
  2. Ho is accepted, and Ha is denied if t-count table at = 5%. (no effect).
  3. If the sig value = 0.05 while utilizing a computer program (SPPS software), Ho is refused. The F- test, often referred to as a simultaneous test, model test, or ANOVA test, is used to determine the combined impact of all independent factors on the dependent variable. The following test criteria are used to compare F-count with Fable:
   1) Ho is rejected, and Ha is approved if F-count> F-table at 5% (effect).
   2) Ho is approved, and Ha is refused if F-count F-table is at = 5%. (no effect)

If the sig value = 0.05 while utilizing a computer program (SPPS software), Ho is refused. The results of the analysis and hypothesis testing have a significance level of 0.05% (= 0.05), which means that if the null hypothesis is accepted or rejected with a 95% level of confidence, then it is likely that the conclusions reached have a 95% truth value, indicating that there is an influence between the two variables or that there is not an influence at all.

4. Results and Discussion

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-695.710</td>
<td>241.318</td>
<td>-2.883</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X1</td>
<td>25.894</td>
<td>.344</td>
<td>2.745</td>
<td>.012</td>
</tr>
</tbody>
</table>

Table 1: Results of multiple linear regression analysis
Table 2: Pearson correlation analysis results correlations

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.704**</td>
<td>.793**</td>
</tr>
<tr>
<td>X1</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.704**</td>
<td>1</td>
<td>.879**</td>
</tr>
<tr>
<td>X2</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.793**</td>
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<td>1</td>
</tr>
<tr>
<td>Y</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3: Results of multiple correlation analysis summary models

<table>
<thead>
<tr>
<th></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>Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.913a</td>
<td>.833</td>
<td>.817</td>
<td>41.547814</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X2, X1

The derived equation for multiple linear regression can be explained as follows:

A constant with the value -695,710 implies that the Net Profit is -695,710 if X1 and X2 are independent variables. The positive outcome of b.b1 of 25,894 means that, provided other variables remain constant, an increase will follow every 1% rise in Company Size in Net Profit of 25,894. (constant).

If other factors remain constant, the positive c.b2 result of 0.304 means that a rise will follow every 1% increase in working capital in net profit of 0.304. (constant).

Table 4: Calculation results t-test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
</tbody>
</table>
The next decision is taken to determine if the research hypothesis is accepted or rejected: H₀ is accepted if count > t-table or probability > 0.05. H₀ is disregarded if t-count < t-table or probability 0.05.

a. Working Capital (X1) has a t-count value of 2.745 in the table above. In a table with dk 21 (n-3 = 24-3), a significant level of 0.05 is attained at a value of 2.079. H₀ is turned down and Ha is approved because t-count exceeds t-table. The t-test significance value of 0.012 is less than 0.05, as seen in the sig column above (table 4.18). Therefore, it is decided that Firm Size (X1) significantly impacts Net Income to a certain extent (Y).

b. The value for Firm Size in the table above is 5.080 in the t-count column, whereas 2.079 is achieved in the table with DK 21 (n-3 = 24-3) and a significant level of 0.05. Ho is turned down, and Ha is approved because t-count exceeds t-table. The t-test significance value of 0.00 is less than 0.05, as can be seen in the sig column above (table 4.18). Therefore, it is decided that Working Capital (X2) has a major impact on Net Income to a certain extent (Y).

### Table 5: Calculation result 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>181208.149</td>
<td>2</td>
<td>90604.074</td>
<td>52.487</td>
<td>.000</td>
</tr>
<tr>
<td>1</td>
<td>36250.638</td>
<td>21</td>
<td>1726.221</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>217458.786</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y

b. Predictors: (Constant), X2, X1

To find out whether the research hypothesis is accepted or rejected, a decision is made as follows:

- If F-count < Ftable or probability > 0.05 then H₀ is accepted.
- If F-count > Ftable or probability <0.05 then H₀ is rejected.

As can be seen from the table above, the value of Fcount is 52.487, and F-table may be calculated using the F-table of degrees of freedom, namely residual 21 and regression 2, with a significant level of 0.05. This results in a F-table of 3.470. Because Ho is rejected and Ha is approved, F-count > F-table. The considerable value of the F-test, which is less than 0.05, is therefore shown in the ANOVAa table above to be 0.000. Consequently, it is decided that Firm Size (X1) and Working Capital (X2) have a considerable impact on Net Income at the same time (Y).

According to data processing results, the variable Company Size has a 27.3% positive impact on Net Income in companies in the Household Appliances Sub Sector of the Consumer Goods Industry Sector for the 2015–2020 period. This is also indicated by the correlation coefficient value, which shows a solid and positive relationship. The t-test results demonstrate a significant relationship between firm size and net income since t-count is bigger than t-table, rejecting H₀ and accepting Ha. The probability value is smaller than 0.05. Therefore, it is decided that Firm Size (X1) has a significant impact on Net Income to a certain extent (Y).

Researchers found that the relationship between company size and net profit is positive and significant. This is because, for the 2015–2020 period, a company in the Consumer Goods Industry Sector, Household Appliances Sub Sector, uses company assets for operational activities to generate profits. Because there is a unidirectional (positive) relationship between firm size and net profit, it can be deduced from the analysis's findings that the company uses better assets, and the higher its net profit will be.

According to Hermawati Nurciptaning Arum et al. (2017), in their publication, one element that affects income smoothing is company size, which impacts net profit. Larger enterprises typically face more government and general public regulation, which tends to provide them with a greater incentive to implement income smoothing. Due to the impact on corporate taxes and vice versa, it is expected of large corporations to prevent abrupt profit fluctuations.

According to earlier research by Moh. Rifai, Rina Arifati, and Maria Magdalena Minarsih (2015) on the Impact of Company Size, Capital Structure, and Growth on Profitability Studies of Manufacturing Companies on the IDX in 2010–2012, company size has a positive and significant impact on profitability. Even though researchers utilize the dependent variable, namely net income, they examine the effects on corporate profits. Thus, the results of this study can be used as a reference or support for the results that researchers have produced.

Based on data processing results, the working capital variable partially has a positive impact on net profit in businesses in the consumer goods industry sector and household appliances sub-sector for the period 2015–2020, which is equal to 56.0%. This is also demonstrated by the correlation coefficient value, which shows a solid and positive relationship. Because t-count is bigger than table, which indicates that Ho is rejected and Ha is accepted.
Because the probability value is smaller than 0.05, the results of the t-test indicate that Working Capital significantly affects Net Income. Therefore, it is decided that Working Capital (X2) significantly impacts Net Income to a certain extent (Y).

Researchers found that the relationship between working capital and net profit is positive and significant. This company is in the consumer goods industry sector's household appliances sub-sector for the 2015–2020 time frame. To be profitable, it must have access to sufficient working capital. In actuality, however, working capital had risen steadily over the past six years, except for the final year, when Net Income climbed after increasing from 2017 to 2019. As a result, it may be said that the bigger the working capital, the higher the net profit, and vice versa.

The idea of working capital is often a useful one. According to Kasmir (2016: 212), this functional concept emphasizes the role of money used to generate income or profit. The company owns and operates a variety of funds intending to boost business earnings. Earnings should rise as working capital expenditures rise, and vice versa; as working capital expenditures fall, profits also fall. In practice, though, this is only sometimes the case.

Working capital had a partially positive and significant impact on net profit, according to prior research by Aprida Kristianti (2021) on the effects of sales and working capital on net profit in automotive companies listed on the Indonesia Stock Exchange for the 2013–2017 period.

Based on data processing results, the variables Company Size and Working Capital simultaneously have a positive and significant influence on Net Profit in Companies in the Consumer Goods Industry Sector, Household Appliances Sub Sector for the 2015–2020 period, namely F-count is greater than F-table, the probability value also shows it is smaller than 0.05. It is also shown in the picture of the acceptance and rejection of Ho that F-count is in the area of reject (Y). The results of manual calculations, the Coefficient of Determination (R-Square), which is 83.3%, and the value of epsilon (ε), which is another variable that also affects net profit but is not analysed, illustrate the impact of firm size and working capital on net profit (1 - R-Square). The additional elements include cash flow, activity ratios, solvency ratios, liquidity ratios, operating and non-operating income, operating and non-operating costs, inventory turnover, accounts receivable turnover, and so on.

Because these two factors complement one another jointly and individually in determining the increase in Net Profit in the Company's Consumer Goods Industry Sector, Household Appliances Sub Sector for the Period 2015–2020, there is a significant relationship between Company Size and Working Capital concurrently on Net Income. Thus, according to the study's findings, net profit increases as company size and working capital improve.

Ridho Tanso Rikalmi, Seto Sulaksono, and Adi Wibowo had previously undertaken research on manufacturing firms listed on the Indonesia Stock Exchange (IDX) for the years 2012 to 2014. The findings indicated that business size and working capital simultaneously impacted profitability, even while changing firm size had a limited impact on profitability. What sets it apart from the writer is that it employs profitability as the dependent variable and uses the variable net profit.

5. Conclusion

The following can be drawn as a conclusion from the research and discussion's findings: Net income is significantly and positively impacted by the firm's size. As a company's size grows, so makes its net profit, and vice versa; working capital has a significant and beneficial impact on net income. This leads to the conclusion that when working capital increases, net profit rises and vice versa. Both company size and working capital simultaneously significantly impact net income. This is because these two criteria truly work best together and cannot, on their own, forecast net profit for consumer goods manufacturers in the household appliances sub-sector from 2015 to 2020.

References


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