The Influence of Sales Growth, Firm Size, Leverage on Financial Distress with Profitability As Moderating Variable

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ABSTRACT: Financial distress is a condition where the firm is facing the problem of financial difficulties, the firm operating cash flow is unable to pay off current obligations (trade payables or expenses) and the firm is forced to take corrective action to avoid bankruptcy or liquidation. This research aims to determine how much influence sales growth, firm size, and leverage had on financial distress due to the COVID-19 outbreak. This research was conduct on 26 firm listed on the Indonesia Stock Exchange in 2018-2020 the food and beverage sub-sector consumer goods sector, but some firms did not report their financial statements so that the number of data that could be process was 54 data. This study uses quantitative approach with multiple linear regression analysis as an analytical tool used by the sampling method, namely purposive sampling. The results of this study indicate 6 hypothesis, two accept hypotheses, sales growth has an effect on financial distress and leverage has an effect on financial distress 4 reject hypothesis are firm size does not affect financial distress, profitiability is not able to moderate sales growth on financial distress, profitiability unable to moderated firm size on financial distress and profitiability unable to moderate leverage on financial distress. For future researchers, it is better to choose the sub-sector that is most affected by the current phenomenon appropriate.

KEYWORDS: Sales Growth, Firm Size, Leverage, Financial Distress, and Profitability

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I. INTRODUCTION

The spread of the coronavirus that spread to various parts of the world had an impact on the Indonesian’s economy in terms of trade, investment, and tourism. The current world condition is very worrying due to Covid-19, including in Indonesia pandemic is very influential on firm activities. The existence of pandemic undeniably has an impact on economic conditions and people's behavior, which in turn affects the level of sales. There were several categories of goods and services that experienced a drastic increase, while some other categories of goods and services experienced a decline. In Indonesia, the government declared the coronavirus a national disaster on Saturday, March 14, 2020, and Indonesia entered a non-natural disaster emergency period. After the coronavirus was declared a national disaster, the government appealed to the public to isolate themselves and reduce gatherings and activities outside their homes.

The Covid-19 virus has impacted on operational activities from all aspects production and consumption. If one aspect hampered, it will greatly affect the other aspects. If the consumption aspect of the community stops or declines, it will impact on firms performance.

The impact of the COVID-19 pandemic felt by all levels of society, especially business people. The decline in people's purchasing power has an impact on firm profits and firm capital as well as increasing firm debt. PTIndofood Sukses Maknur, Tbk reported that the firms debt in 2019 was IDR 41,996,071,000,000, increase to IDR 83,998,472,000,000 during the 2020 COVID-19 pandemic (www.idx.co.id).

Changes in economic conditions due to the COVID-19 pandemic can affect the activities and performance of the firm. When the firm is unable to activities process and is unable to compete in the performance of firm resources, it will experience losses which in turn make the firm experience financial distress.

Financial Distress is a condition where a firm is in an condition unhealthy. Sometimes financial distress is seen from the inability of a firm to obtain high income, in the sense that it means the firm earns s lower level
The Influence of Sales Growth, Firm Size, Leverage on Financial Distress with.. of income than the total costs incurred so that it is unable to pay off its obligations. This inability provides evidence that the firms performance negative and indicates a problem with liquidity (Ramly and Hasan, 2019).

This study focuses on companies listed on the Indonesia Stock Exchange in the consumer goods sector and its sub-sector, namely food and beverage because the food and beverage industry is still the mainstay sector supporting manufacturing growth in Indonesia. The manufacturing industry is the highest sector that contributes to the economic sector. Because of this Covid-19, whether the food and beverage industry is still a supporter of manufacturing growth in Indonesia or not.

The problem in this research is
1. Sales growth affects financial distress
2. Firm size has an effect on financial distress
3. Leverage has an effect on financial distress
4. Profitability moderates sales growth against financial distress
5. Profitability moderates firm size on financial distress
6. Profitability moderates leverage on financial distress

The aims of this research are:
1. Knowing the effect of sales growth on financial distress
2. Knowing the effect of company size on financial distress
3. Knowing the effect of leverage on financial distress

II. LITERATURE REVIEW

2.1 Agency Theory

Agency theory explains the agency relationship between shareholders as principals and managers as agents according to Jensen and Meckling (1976). It is said that there is an agency relationship when one or more (principals) employ another person (agent) to provide a service and delegate decision-making authority to the agent. Because there is an information between the principal and the agent, so the agent has more information about the firm than the principal, the agent can act to maximize himself with the information asymmetry he has and will encourage the agent to hide some information that is not known by the principal. The agent can present financial reports that are not in accordance with reality or manipulate data by means of earnings management.

2.2 Profitability

Profitability ratios measures the overall of the overall management effectiveness as indicated by the size of the level of obtained in relation to sales and investment. The better profitability describes the ability to earn high profits. Profit is an indicator that shows the performance of a firm. Companies that have high profits, the firms performance is getting better, and vice versa the firms performance will experience a decline if the profits generated are getting lower (Kusumo and Ari, 2018).

According to Kasmir (2016) profitability is the ratio used to assess the firms ability to seek profit. This ratio also provides measure of the effectiveness of a firms management. This is indicate by the profit generated from sales and investment income. The use of profitability ratios can be done by using comparisons between the various components in the financial statements, especially the balance sheet financial statements and the income statement.

This ratio is used to assess the firms ability to seek profit as well as provide a measure of the level of management effectiveness of a firm. The profitability ratios measure the effectiveness of overall management as indicated by the size of the level of profits obtained from sales and investment. The profitability ratio uses Return On Assets (ROA) as a measure of the profitability ratio can be calculated as follows:

ROA = Net Profit / Total Assets

2.3 Leverage

Ratio leverage is a measure of how much the firm is stand with debt. The firm has a high leverage ratio, meaning that the firm carries out tall funding sourced from debt. Due to the risk of default, the firms costs are also getting big. This matter can lead to low firm profitability. If the firm makes low-interest loans, firm interest expense is also small and the firm is more efficient in its operations. These can cause the firm's profitability to increase. The use of debt in the firms funding activities not only has a good impact on the firm. If the firm does not pay attention to the proportion of leverage, it will cause a decrease in profitability because the use of debt causes a fixed-interest expense (Sartono, 2010). The formula for the debt-to-equity ratio can used as a comparison between total debt and total equity as follows.

Debt to Equity Ratio = Total Debt (Debt) / Equity (Equity)
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2.4 Sales Growth  
Arif and Zahroh (2015) suggest that sales are the main component of the firm’s income. The firm will improve its products to get a high level of sales growth. Therefore, sales growth will affect the firm’s profitability. Sales growth reflects the investment success of the past period and can be used to predict future growth. Sales growth is an indicator of demand and competitiveness of firm in an industry. Sales growth can be visible from changes in sales in the previous year and the following year. A firm can be said to experience growth in a better direction if there is a consistent increase in its main operating activities. The measure of the sales growth ratio in this study is:

\[
\text{Sales growth} = \frac{\text{Sale}_t - \text{Sale}_{t-1}}{\text{Sale}_{t-1}} \times 100 \%
\]

2.5 Firm Size  
According to Ernawati (2016) firm size is a picture of the size of a firm that can be seen from total assets or net sales. The greater the total assets and sales, the greater the size of a firm. The bigger the asset, the bigger the invested capital. While the more sales, the more the turnover of money in the firm. The measurer in this firm size ratio is:

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

2.6 Financial Distress  
Financial distress is a condition where the firm's finances are in an unhealthy state or are in crisis, in other words, the firm is in a state of financial difficulty (Platt HD and Plat MB, 2002). The cause of the firm experiencing financial distress is caused by internal and external factors. Factors from within the firm, that is: problems with cash flow, the amount of debt that is getting bigger, experiencing losses for several years. The firm's external factors are usually more macro in nature where the scope is quite broad. The measurement of financial distress in the view from the Altman z-score model, this model is used by firm that are experiencing bankruptcy or not, which can the view from their financial statements and has a tendency to go bankrupt. Altman Z-score is declared in the form of a linear equation consisting of 5 “T” coefficients, namely:  
\[
Z = 1.2 T_1 + 1.4 T_2 + 3.3 T_3 + 0.6 T_4 + 0.99 T_5
\]
Under the condition: If \( Z > 2.99 \) = safe zone, \( 1.81 < Z < 2.99 \) = Grey zone, \( Z < 1.81 \) = zone distress

<table>
<thead>
<tr>
<th>NO</th>
<th>CODE</th>
<th>2018 Description</th>
<th>2019 Description</th>
<th>2020 Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ADS</td>
<td>Distress</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>2</td>
<td>Buah</td>
<td>Distress</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>3</td>
<td>CAMP</td>
<td>Grey</td>
<td>Grey</td>
<td>Grey</td>
</tr>
<tr>
<td>4</td>
<td>CERA</td>
<td>1.826</td>
<td>1.402</td>
<td>1.558</td>
</tr>
<tr>
<td>5</td>
<td>CEO</td>
<td>0.894</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>6</td>
<td>DELTA</td>
<td>0.638</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>7</td>
<td>NOCD</td>
<td>0.559</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>8</td>
<td>GOOD</td>
<td>0.527</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>9</td>
<td>HQEI</td>
<td>0.605</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>10</td>
<td>ICBP</td>
<td>0.899</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>11</td>
<td>IKO</td>
<td>2.296</td>
<td>Grey</td>
<td>Grey</td>
</tr>
<tr>
<td>12</td>
<td>INDIF</td>
<td>0.326</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>13</td>
<td>MNB</td>
<td>0.564</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>14</td>
<td>MMTN</td>
<td>0.594</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>15</td>
<td>PANI</td>
<td>0.494</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>16</td>
<td>RITI</td>
<td>0.586</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>17</td>
<td>SKL</td>
<td>0.483</td>
<td>Distress</td>
<td>Distress</td>
</tr>
<tr>
<td>18</td>
<td>ULU</td>
<td>1.527</td>
<td>Grey</td>
<td>Grey</td>
</tr>
</tbody>
</table>

*Figure 1: Financial Distress Data*

III. METHODOLOGY OF THE STUDY  
Research hypothesis  
This study is based on the following hypothesis (Figure 2).  
H1: Sales growth affects financial distress  
H2: Company size affects financial distress  
H3: Leverage affects financial distress  
H4: Profitability moderates sales growth on financial distress  
H5: Profitability moderates firm size on financial distress  
H6: Profitability moderates leverage on financial distress

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Figure 2: Research Theory Framework

Research Sample
This research design belongs to the type of quantitative research. Quantitative research methods are research methodologies based on the philosophy positivism, used to examine confident populations or samples, collect data using research instruments, and analyze quantitative or statistical data analysis with test predetermine hypotheses (Sugiyono, 2017). The method of data collection in this study uses the methodology of documentation.

This type of research data is secondary data. The secondary data in this study is data on annual financial statements issued by Manufacturing Industry firms listed on the Indonesia Stock Exchange (IDX) from 2018 to 2020. Financial report are obtained from each firms website at www.idx.co.id.

The population in this study is the food and beverage sub-sector firm listed on the Indonesia Stock Exchange (IDX) during the period 2018 to 2020. The sample is part of the population. The specimen in this study used Purposive sampling, which is a sampling technique with confident considerations (Sugiyono, 2017). Following are the sampling criteria

Table 1
Research sampling
Food and beverage sub-sector companies listed on the Stock Exchange Indonesia (IDX) 2018-2020

<table>
<thead>
<tr>
<th>No</th>
<th>Information</th>
<th>Amount Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) For food and beverage sub-sector 2018-2020</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>Firm that do not issue financial reports continuously during 2018-2020</td>
<td>(8)</td>
</tr>
<tr>
<td>3</td>
<td>Firm that do not use rupiah (IDR) in their reports</td>
<td>(0)</td>
</tr>
<tr>
<td>4</td>
<td>Firm that do not have complete data related to research</td>
<td>(0)</td>
</tr>
<tr>
<td>5</td>
<td>Firm whose financial statement cannot read</td>
<td>(0)</td>
</tr>
<tr>
<td></td>
<td>Number of Sample</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Number of Observation data 18 x 3</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>The amount of data processed</td>
<td>54</td>
</tr>
</tbody>
</table>

IV. ANALYSIS & RESULT

4.1 Normality test
The normality test aims to test whether in the regression model the independent variables and dependent variables are normally distributed or not in this test using Kolmogorov Smirnov(KS) provided that if the significant value is above 0.05, then the data is normally distributed. If the significant value is below 0.05, then the data is not normally distributed. The following is the output of the results data processing.

Table 2
Normality test
One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolmogorov-Smirnov Z</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

From the output above, it can be seen that the KS value is 0.851 and Asymp. Sig. (2-tailed) > level significant by 5% so that it can be concluded that the data has a normal distribution.

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4.2 Heteroscedasticity Test

The heteroscedasticity test is used to test whether in the regression model there is an inequality from the residual of one observation to another observation. This study uses the scatterplots, there are no symptoms or problems of heteroscedasticity if (1) The data points spread above and below around the number 0, (2) The points do not collect only above or below me, (3) The spread of the data points must not form a wavy pattern that widens and then narrows and widens again, (4) The spread of data points is not paterned.

![Figure 3: Heteroscedasticity Test](image)

This test can be stated that in this study the data is not exposed to heteroscedasticity.

4.3 Multiple Linear Regression Analysis

Multiple Linear Regression is a regression that connects the dependent variable with the independent variable which has one dependent variable and several independent variables.

<table>
<thead>
<tr>
<th>Table 4</th>
<th>Multiple linear regression Coefficients(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Unstandardized Coefficients</td>
</tr>
<tr>
<td></td>
<td>Standardized Coefficients</td>
</tr>
<tr>
<td></td>
<td>T</td>
</tr>
<tr>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.055</td>
</tr>
<tr>
<td>PP</td>
<td>.090</td>
</tr>
<tr>
<td>UP</td>
<td>-.069</td>
</tr>
<tr>
<td>LEV</td>
<td>-.493</td>
</tr>
</tbody>
</table>

Model 1 \[ Y = \alpha + \beta_1 PMK + \beta_2 PP + \beta_3 UK + \beta_4 LEV + e \]

FD = 3.055+0.090PP-0.069-0.493+e

From the data above, it can be conclude that the sig value on sales growth is 0.006 (<0.05), this indicates that hypothesis 1 is accepted, which means that sales growth affects financial distress. Firm size has a sig value of 0.051 (<0.05), which means that the second hypothesis is rejected, which means that firm size does not affect financial distress. The sig leverage value is 0.000 (<0.05), which means that the third hypothesis is accepted, leverage affects financial distress. This study also uses the residual test to moderate the panel data variable, namely profitability, the following is the model of the residual test.

<table>
<thead>
<tr>
<th>Table 5</th>
<th>T Test (Modation) Coefficients(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Unstandardized Coefficients</td>
</tr>
<tr>
<td></td>
<td>Standardized Coefficients</td>
</tr>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.116</td>
</tr>
<tr>
<td>Moderasi1</td>
<td>-.899</td>
</tr>
<tr>
<td>Moderasi2</td>
<td>.049</td>
</tr>
<tr>
<td>Moderasi3</td>
<td>-.877</td>
</tr>
<tr>
<td>ROA</td>
<td>.363</td>
</tr>
</tbody>
</table>

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Model \[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3Z + \varepsilon \]
\[ FD = 3,116 + 0.005 + 0.363 -0.899 + \varepsilon \]
\[ FD = 3,116 - 0.077 + 0.363 + 0.049 + \varepsilon \]
\[ FD = 3,116 - 0.405 + 0.363 - 0.877 + \varepsilon \]

The results in table 5 show moderation 1 with a sig value of 0.466 (>0.05) meaning that profitability is not able to moderate sales growth against financial distress.

The moderating sig value of 2 is 0.937 (> 0.05) which states that profitability is not able to moderate the size of the firm on financial distress.

Moderation 3 shows a sig value of 0.487 (> 0.05), the result is that profitability is not able to moderate leverage on financial distress Simultaneous.

4.4 Significance Test (F Statistics Test)

The F test aims to determine whether the independent variables (independent) together affect the dependent variable (dependent). In this study, the significance level is 5% or 0.05 with the decision criteria, namely if it is significant 0.05 then the independent variable does not affect the dependent variable. Ho is accepted if F count < F table, Ho is rejected if F count > F table. The following is a table to see the 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>1 Regression</td>
<td>7,688</td>
<td>3</td>
<td>2,563</td>
<td>12,546</td>
<td>.000(a)</td>
</tr>
<tr>
<td>Residual</td>
<td>10,212</td>
<td>50</td>
<td>.204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17,900</td>
<td>53</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of these tests can be concluded that the calculated F is 12.546 > F table of 0.000 from the data means Ho is rejected and Ha is accepted.

V. DISCUSSION

The test results above state that Sales Growth affects financial distress, so it can be conclude that Sales growth is one of the important indicators in a firm. If a firm can increase sales growth, then the firm will avoid financial distress. On the other hand, if the firm from year to year is not able to increase sales growth, then the sales growth decreases, and the firm is said to be in financial distress. This research is in line with research conducted by Widhiari and Merkuswiati (2015) states that sales growth influence financial distress.

The larger the size of the firm can reduce the possibility of financial distress. This is based on the assumption that large firm will be more complex so that many available assets that allow them to be pledged or sold at least to help overcome financial difficulties. This study shows that firm size does not affect financial distress, in line with the research of Widhiari and Mersukiwati (2015) which states that firm size does not affect financial distress.

Firm that experience financial distress generally have a debt amount that is almost as large as total assets. A high amount of debt will cause high interest costs while total assets have not been able to meet the total debt. The results of this study indicate that leverage has an effect on financial distress, which is supported by research conducted by Marfungatun (2016), which shows that leverage has a positive effect on financial distress which states that the smaller the leverage then the smaller the occurrence financial distress.

Firm that have high profitability tend to have high sales growth rates. This means that large sales growth is able to illustrate that the firm can increase the number of sales from year to year. Firm that have large sales growth rates are relatively able to maintain the viability of the firm because the firm profits are likely to increase. This research is in line with research conduct by Handayani, Widiasrmara (2019) which states that profitability is not able to moderate sales growth to financial distress.

The non-significance of the profitability variable means that it is unable to contribute to the influence of firm size on the firm's level of financial distress, both in decreasing and increasing in the occurrence of financial distress in the firm. If the size of the firm against financial distress with profitability as a moderating variable increases, then the level of financial distress firm will increase. This study is in line with research conducted by Bernadin and Indriani (2020) which states that profitability is not able to moderate firm size against financial distress.

A high debt ratio followed by low profitability means that the total assets owned by the firm tend to be small, allowing the firm to cover its debts with difficulty and will have an impact on decreasing the profits generated. Conversely, if the firm has a low debt ratio, it is possible for the firm to cover its debt. This study is in line with research conducted by Andiyanti (2018) which states that profitability is not able to moderate the effect of leverage on financial distress.
VI. LIMITATION & FUTURE RESEARCH DIRECTION

limitations in this study are:
1. This study only takes a sample of firm in the food and beverage sector
2. This study only conducted a sufficient observation period short of 3 years.

Future research direction:
1. Further research should add years of observation longer for better results.
2. Further research can use financial measurement other distress, because there are still many financial measurements distress that can be used other than using the Altman z-score
3. Further research can take a larger population of registered sector firm

VII. CONCLUSION

The conclusion of this research is that from 6 hypotheses, 2 hypotheses are accepted, 4 hypotheses are rejected. The rejected hypothesis is the effect of firm size on financial distress, profitability moderates sales growth, firm size and leverage on financial distress. while the accepted hypothesis is the effect of sales growth and leverage on financial distress.

Sales growth affect financial distress, if the firm has high sales, the firm will avoid financial distress. The data in this study shows that the size of the firm has no effect on financial distress because the larger the size of the firm, the less the occurrence of financial distress. leverage has an effect on financial distress because the company attracts more investors.

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