

Original Research Article

FACTORS AFFECTING FINANCIAL DISTRESS IN SMALL AND MEDIUM ENTERPRISES (SMEs) IN INDONESIA : AN EMPIRICAL STUDY

ABSTRACT

Aims: The research conducted aims to see the effect of financial ratios in the ability to predict the possibility of a company in experiencing financial distress.

Study design: The independent variables in this study are leverage, liquidity and profitability. The control variables consist of firm size and age of the company while the dependent variable is financial distress as measured by the Z-score.

Place and Duration of Study: The sample used in this research is a company listed on the 2017-2021 PEFINDO index on Bursa Efek Indonesia.

Methodology: The number of samples used were 65 companies with a total of 325 observations using purposive sampling.

Results: The results showed that leverage had a **positivesignificant** effect on financial distress meanwhile profitability and age had a **negativesignificant** effect on financial distress.

Conclusion: The company is expected to minimize the use of leverage which used to fund total assets. In addition, the company is expected to be able to increase company's net profit to **minimize it's possibility in experiencing financial distress** and companies with a mature age to keep maintaining leverage and profitability in order to avoid the risk of financial distress. Investors are expected to choose companies by looking at low leverage ratios, high profitability, and companies with old ages so that the risk of investment can be minimized. The government is expected to be able to provide capital to companies so that the company's **leverage can be lower as well as an increase** company's profitability as a result of increasing company productivity in doing business.

Keywords: Age, Financial Distress, Leverage, Profitability, Small Medium Enterprises

1. INTRODUCTION

The COVID-19 pandemic that **hits** the world in 2020 became a terrifying scourge for all humans. Efforts to break the chain of transmission of COVID-19 are carried out throughout the country so that their residents avoid this infectious disease. The absence of a cure or vaccine to overcome COVID-19 is a reason for each country to limit mobility by implementing lockdowns as an effort to prevent the entry and exit of residents in each country. The restrictions caused chaos in various fields, especially the economy. The disruption of economic activities around the world has caused the wheels of the economy to not run well. When the COVID-19 pandemic causes many companies in this difficult situation to survive, it becomes important to see the risk of financial distress for a company (Shi & Li, 2021). Financial distress is said to be an important indicator in assessing the company's

financial health and is a concern for management because it can has an impact on creditors, auditors, shareholders, and top-level management (Shi & Li, 2021).

The difficulty in economic situation also haunts Indonesia in 2020. Based on data from the Badan Pusat Statistik (BPS) reported that at least Indonesia's economic growth reached -2.07% which caused Indonesia to experience deflation due to unstable economic movements (www.djkn.kemenkeu.go.id). The pandemic that hits Indonesia also had an impact on Small and Medium Enterprises, where data from the Indonesian Ministry of Cooperatives and Small and Medium Enterprises reported that around 37,000 SMEs were affected by the pandemic.

Small and Medium Enterprises themselves can actually make significant changes in the process for developing the country. This case is especially for developing countries where Small and Medium Enterprises are considered as the main pillars in supporting the economic of these countries (Tshiaba et al., 2021).

According to data obtained from the Indonesian Ministry of Cooperatives and Small and Medium Enterprises in 2018, Indonesia's economic structure shows that 99% of companies comes from Small and Medium Enterprises sector. Therefore, in the midst of the COVID-19 pandemic, the Indonesian government does not remain silent in overcoming the problems that arise. Efforts after efforts were made as a way for Indonesia to survive, especially the Small and Medium Enterprises sector in the midst of difficult conditions so that it slowly recovered from the economic recession felt during the year.

The economic situation that is not running well in Indonesia then causes various problems, especially the ability to survive. Referring to companies that face difficulty in staying amidst the slow wheels of the economy due to limited public consumption and restrictions on activities both at home and abroad, it is possible that in the near future the company may experience financial distress. Financial distress is used as a signal for companies to be aware of the possibility of bankruptcy and potential liquidation in the future (Liahmad et al., 2021).

Financial distress faced by a company will certainly has a very large loss impact. Therefore, if the company is able to predict financial distress before it occurs, it becomes an important parameter for the success of a business (Ashraf et al., 2019). Companies that experience financial distress can actually be seen by assessing their financial ratios. According to Liahmad et al., (2021) internally financial distress can be caused by several factors, including the amount of debt, operational losses, and cash flow difficulties owned by the company. In this research there are several factors that will be seen the influence of financial distress in Indonesia.

Based on the background exposure that has been stated, it was then used as a basis for conducting a study with title "Factors Affecting Financial Distress in Small and Medium Enterprises (SMEs) in Indonesia: An Empirical Study".

2. LITERATURE REVIEW

2.1 Financial Distress

Financial distress is used as an initial signal in evaluating the company's financial condition. This topic is an interesting discussion for many researchers because by analyzing financial distress, it can be known what companies are experiencing bad financial conditions and the potential that the company will face in the near future. Financial distress therefore become a direction for researchers or the public to avoid investing in that company.

Previous research conducted by Shi & Li, (2021) involved 99 European airlines over the past 10 years. The research conducted obtained the result that leverage negatively affects financial distress while liquidity and profitability have a positive effect on financial distress.

2.2 Leverage

Financial distress influenced by several internal factors including leverage, liquidity, and profitability. Leverage is a financial ratio that measures the proportion of a company's debt. According to the results of Shi & Li's, (2021) companies with high debt ratios are more risky than companies with low debt ratios. Meanwhile, according to the results of research by Farooq et al., (2021) the high proportion of debt owned by the company will lead to high financial distress costs. It is then concluded that the high leverage used in the company's operational activities will have an impact on the high probability of the company in experiencing financial distress. The same thing is also found in the research of Farooq et al., (2020) that when a company has a high level of leverage, the company has an obligation to meet interest payments **so it has more potential to faced difficulties**, research by Jaafar et al., (2018) says high leverage in companies with the potential to experience bankruptcy, as well as research Isayas, (2021) ; Effendi et al., (2021) who concluded that high leverage will cause the potential for companies to experience financial distress.

2.3 Liquidity

Liquidity is one of the ratios that measure the company's financial performance. According to the results of the Sutra & Mais, (2019) companies with high liquidity indicate the ability to meet short-term obligations that are due soon so that the company has little possibility in experiencing financial distress. According to research by Putri & Aminah, (2019) ; Effendi et al., (2021), companies with high liquidity will avoid liquidation or bankruptcy problems. Meanwhile, according to the results of **Shi & Li's, (2021)**, companies with high liquidity have little risk due to the low use of debt for company activities so they have low probability of experiencing financial distress .

2.4 Profitability

Profitability is a ratio that describes how effective and efficient a company is in using its assets and its ability to make profits for the company (Effendi et al., 2021). According to Dirman, (2020) ; Sutra & Mais, (2019) companies with high profitability will avoid financial distress where this is because the company can use its assets properly. Meanwhile, according to research by Jaafar et al., (2018) high profitability illustrates the good performance of management **so it can avoid the potential financial distress**. Therefore, profitability is expected to have a high value in order to reduce the possibility of the company experiencing financial distress in the future.

2.5 Firm size

The control variables in this study involved firm size and age in predicting financial distress. The results of Dirman's, (2020) companies with large size have the potential to experience low financial distress because the company has sufficient assets to meet the company's obligations. Meanwhile, according to Shi & Li, (2021) large companies have the ability to adapt to economic, social, and political changes as well as the ability to generate higher profits due to the availability of resources and experience of the company **operating to minimize the risk of experiencing financial distress**. The same thing was added through the research of Wangsih et al., (2021) ; Isayas, (2021) **that the larger the company, the smaller the potential to experience financial distress**. This is because large size causes a stable

company condition. Thus, it can be concluded that companies with a large size are expected to have a small probability of experiencing financial distress **due to good capitalization.**

2.6 Age

Age indicates the duration of activities a company has established and operated. Age is a benchmark for how a company has been able to go through problems that arise and **how the company** survive and develop through the use of opportunities the company has (Krisnanda & Ratnadi, 2017). **According to the results of** Sayari & Mugan, (2013) ; Isayas, (2021), the age of the company negatively affects financial distress where a company with an old age has carried out operational activities for a long period of time and it is considered that the length of time the company operates indicates stable financial capabilities and a good reputation so the company is able to survive. Thus, the old age of the company is expected to reduce the probability of the company in experiencing financial distress. **However this arguments different from the results by** Norita & Dahar, (2016) the old age of the company actually leads to **financial distress compared to company with younger age.**

Conceptual Framework

A company's financial distress can be measured by financial ratios including leverage, liquidity, and profitability as well as firm size and age. Based on the presentation of the literature that has been stated, the conceptual framework in the study is described as follows:

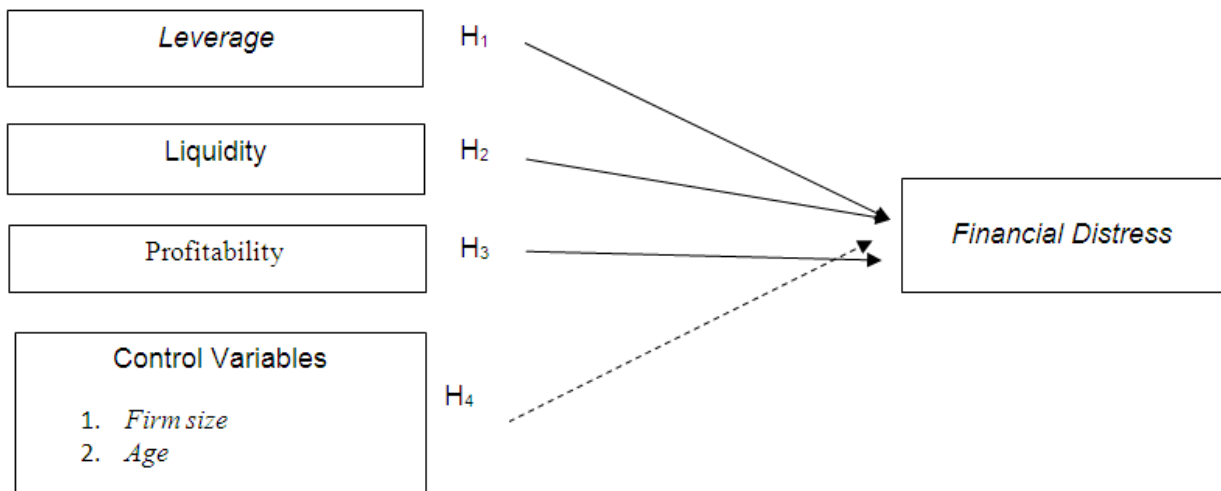


Figure 1. Conceptual Framework

Hypothesis Development

According to the results of the research of Jaafar et al., (2018) ; Farooq et al., (2020) ; Shi & Li, (2021) ; Farooq et al., (2021) ; Isayas, (2021) ; Effendi et al., (2021) leverage has a positive effect on financial distress. This is because

companies with higher leverage are more risky than companies with lower leverage (Shi & Li, 2021) while according to the results by Farooq et al., (2021), the high use of leverage in company operations will have an impact on the high probability of the company in experiencing financial distress. In contrast to the results of Alifiah et al., (2013) ; Masdupi et al., (2018) ; Silalahi et al., (2018) ; Septiani & Dana, (2019) which shows the negative influence of leverage on financial distress. According to Masdupi et al., (2018) leverage is in line with the trade off theory that when a company has debt and able to manage it properly, the company's profit and value can increase which leads an impact on avoiding the company from the risk of financial distress. Based on this, the first hypothesis is formulated as follows:

H₁ : There is an influence of leverage on financial distress in SMEs in Indonesia

Research of Sutra & Mais, (2019) ; Princess & Aminah, (2019) ; Shi & Li, (2021) ; Effendi et al., (2021) found that liquidity negatively affects financial distress. According to Sutra & Mais, (2019) ; Putri & Aminah, (2019) companies with high liquidity have the ability to meet their maturing short-term responsibilities so that the company's high liquidity will reduce the possibility for the company to experience financial distress. Shi & Li, (2021) also added that companies with high liquidity tend to use small amounts of debt, implying also small risks. These results contrast with the research of Yudiawati & Indriani, (2016) ; Pulungan et al., (2017) ; Septiani & Dana, (2019) which shows the positive influence of liquidity on financial distress. According to Yudiawati & Indriani, (2016) the large value of current assets indicates that the company has unneeded current assets so that it is not profitable for the company's revenue and is likely to be the value of uncollectible receivables or inventory. Based on this, the second hypothesis is formulated as follows:

H₂ : There is an influence of liquidity on financial distress in SMEs in Indonesia

Research from Jaafar et al., (2018) ; Sutra & Mais, (2019) ; Shi & Li, (2021) ; Isayas, (2021) shows a significant negative effect of profitability on financial distress. Through research by Jaafar et al., (2018) added that high profitability illustrates that companies have good management. Thus, high profitability shows good company management skills so as to avoid the possibility of experiencing financial distress. Unlike the case with the research results of Saputri & Asrori, (2019) ; Khotimah & Yuliana, (2020) ; Dirman, (2020) shows positive results on financial distress. According to Dirman, (2020) companies that have high profits do not mean avoiding financial distress which is because many companies are often unable to control their funds to cover all costs related to their business operations. So it can be said that companies with high profitability do not guarantee that they can avoid financial distress. Based on this, the third hypothesis is formulated as follows:

H₃ : There is an influence of profitability on financial distress in SMEs in Indonesia

According to Dirman, (2020) ; Shi & Li, (2021) ; Wangsih et al., (2021) ; Isayas, (2021) size has a significant negative effect on financial distress. According to Wangsih et al., (2021), companies with large sizes described as having high total asset ownership are less likely to experience financial distress. Isayas, (2021) also added that size is one of the key determinants in seeing the potential for financial distress of a company. Therefore, it is expected that companies with large size will avoid the possibility of financial distress because large companies have a good market experience and a larger source of funding than companies with small sizes. Research conducted by Ikpesu, (2019) ; Yusbardini & Rashid, (2019) ; Andika & Nuryaman, (2022) shows the positive effect of firm size on financial distress. According to Ikpesu, (2019) large companies have a tendency to increase their debt which can later cause financial distress if the increase in debt is not managed properly. Andika & Nuryaman, (2022) also added that the size of the company that is excluded from the total assets owned is inseparable from the risks faced because the size of the company indicates the magnitude of the problems that need to be faced.

H₄ : There is an influence of firm size on financial distress in SMEs in Indonesia

Research results of Sayari & Mugan, (2013) ; Isayas, (2021) stated that age negatively affects financial distress. According to Isayas, (2021) this is because companies with old age have carried out operational activities for a long period of time, indicating stable unskillful and a good reputation so that they can survive. This is different from the results of research by Norita & Dahar, (2016) which states that age has a positive effect on financial distress. This is because companies with old age have a greater potential to experience financial difficulties than young companies. Based on this, the fourth hypothesis is formulated as follows:

H₅: There is an influence of age on financial distress in SMEs in Indonesia

3. RESEARCH METHODS

3.1 Variables and Variable Measurement

This research is calculated to determine the influence between independent variables and control on dependent variables. Each variable is then outlined as follows:

Table 1. Variable and Measurement

Variable Type	Variable Name	Symbol	Definition of Variables	Source
Dependent Variables	Financial Distress (Z-score)	Z	Grouping companies that are included in the Financial Distress and Non-Financial Distress groups is seen from the ratio of leverage or liquidity or profitability and then processed data using discriminant analysis. Conclusion: 1. The leverage ratio of > 0.5 falls into the Financial Distress group 2. Liquidity < 1 is included in the Financial Distress group Profitability < 0 is included in the Financial Distress group and Non-Financial Distress group	Andre & Taqwa, 2014
Independent Variables	Leverage	LEV	$\frac{TotalLiabilities}{TotalAssets}$	Shi & Li, 2021
	Liquidity	LIQ	$\frac{CurrentAssets}{CurrentsLiabilities}$	Shi & Li, 2021
	Profitability	PROF	$\frac{NetIncome}{Sales}$	Leon, 2021
	Firm size	SIZE	Logarithm of total assets	Shi & Li, 2021
Control Variables	Age	AGE	Logarithm of the year of research minus the year the company was established	Shi & Li, 2021

3.2 Sampling Methods

This study used purposive sampling techniques for the sampling process. The consideration taken because this study focuses on certain objectives, which are companies who are listed on the PEFINDO index for 5 years (2017-2021). The data obtained was taken from sources, which are companies that publish their annual reports and financial reports which were then selected as many as 65 companies with a total of 325 observations with the following criteria:

1. Companies that have been listed on the PEFINDO index for the 2017-2021 period
2. Availability of company financial reports and not using foreign currency
3. Availability of data related to measurements for the used variables

3.3 Data Testing Methods Discriminant Test

Variables Not in the Analysis Table is one of the steps in the discriminant analysis shown to see what variables are capable in discriminating or distinguishing against their dependent variables before finally obtaining the discriminant equation.

Based on step 0, the variables LEV, LIQ, and PROF have a sig value of $< 0,05$ where LEV has a sig value of 0,000; LIQ has a sig value of 0,000 ; PROF has a sig value of 0,000. Wilks's Lambda value on LEV was 0,445 ; LIQ 0,831 ; PROF of 0,900. Then the variable that is able to discriminate at step 0 is leverage (LEV).

Based on step 1, the PROF variable has a sig value of $< 0,05$ where PROF has a sig value of 0,013. Wilks's Lambda value on PROF is 0,437. Then the variable that is able to discriminate in step 1 is profitability (PROF).

Based on step 2, the LIQ, SIZE, and AGE variables have a sig value of $> 0,05$ where LIQ has a sig value of 0,156; SIZE has a sig value of 0,310 ; AGE has a sig value of 0,139. Then the LIQ, SIZE, and AGE variables are not capable of discriminating in step 2.

Table 2. Variable Not in the Analysis

Step	Variables	Sig	Wilks' Lambda
0	LEV	0,000	0,445
	LIQ	0,000	0,831
	PROF	0,000	0,900
	SIZE	0,098	0,992
	AGE	0,625	0,999
1	LIQ	0,203	0,443
	PROF	0,013	0,437
	SIZE	0,545	0,445
	AGE	0,091	0,441
2	LIQ	0,156	0,434
	SIZE	0,310	0,435
	AGE	0,139	0,434

3.4 -2 Log Likelihood Test dan Hosmer and Lemeshow Test (Goodness-of-fit-test)

Based on the data that has been processed, it was found that there was a decrease in the value of -2 Log Likelihood. Before entering the independent variable, -2 Log Likelihood was 443,725. After the model included 5 variables, namely leverage, liquidity, profitability, firm size, and age, a value of -2 Log Likelihood of 158,494 < 443,725 (X^2 Stat) was included. Therefore, the model in the study is the goodness of fit.

3.5 Nigelkerke R²

The goodness of fit of the model shown by Nigelkerke R² shows a coefficient value of 78.5%. This explains that variations of independent variables consisting of leverage, liquidity, profitability and control variables consisting of firm size and age can explain the condition of financial distress and non-financial distress of 78.5%. This means that the value of 21.5% is influenced by other variables that are not discussed further in this study.

3.6 F-test

The Omnibust Test of Capital Coffecients is a simultaneous test designed to see if all independent and control variables consisting of leverage, liquidity, profitability, firm size, and age affect the dependent variable i.e. financial distress. When viewed from the results of the processed data, the Chi Square value was obtained by 285,231 and a sig of 0.000 < 0,05. Therefore, from five variables included in the model, which are leverage, liquidity, profitability, firm size, and age, there is at least one variable that has a significant effect on financial distress.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Descriptive statistics is an elaboration of the results of data processing that describes the mean, standard deviation, maximum value, and minimum value of all independent variables consisting of leverage (LEV), liquidity (LIQ), profitability (PROF), and firm size (SIZE) and age (AGE) control variables. The description of each of these values is then described as follows:

1. Leverage has an average value of 0,43077 and a standard deviation of 0,190316. From the descriptive table, the maximum value of 0,973 was owned by PT Acset Indonusa Tbk. (ACST) in 2019 while the minimum value of 0,042 was owned by PT Puradelta Lestari Tbk. (DMAS) in 2018.

2. Liquidity has an average value of 2,61255 and a standard deviation of 2,074320. From the descriptive table, the maximum value of 12,769 was owned by PT Puradelta Lestari Tbk. (DMAS) in 2018 while the minimum value of 0,275 was owned by PT Link Net Tbk. (LINK) in 2020.

3. Profitability has an average value of 0,08196 and a standard deviation of 0,289739. From the descriptive table, the maximum value of 2,391 was owned by PT Industri Jamu dan Farmasi Sido Muncul Tbk. (SIDO) in 2018 while the minimum value of -2,014 was owned by PT Lippo Cikarang Tbk. (LPCK) in 2020.

4. Firm size has an average value of 12,60388 and a standard deviation of 0,476855. From the descriptive table, the maximum value of 13,558 is owned by PT Bukit Asam Tbk. (PTBA) in 2021 while the minimum value of 11,347 is owned by PT WEHA Transportasi Indonesia Tbk. (WEHA) in 2021.

5. Age has an average value of 33,5538 and a standard deviation of 18,30303. From the descriptive table, the maximum value of 115,00 is owned by PT PP London Sumatra Indonesia Tbk. (LSIP) in 2021 while the minimum value of 4,00 is owned by PT MAP Boga Adiperkasa Tbk. (MAPB) and PT PP Presisi Tbk. (PPRE) in 2017.

Table 3. Descriptive Statistic

Variable	N	Mean	Maximum	Minimum	Standard Deviation
Leverage	325	0,43077	0,973	0,042	0,190316
Liquidity	325	2,61255	12,769	0,275	2,074320
Profitability	325	0,08196	2,391	-2,014	0,289739
Firm size	325	12,60388	13,558	11,347	0,476855
Age	325	33,5538	115,00	4,00	18,30303

4.2 Discriminant Function

Based on the discriminant analysis test, the following equation was obtained:

Table 4. Discriminant Function

Variables	Functions
LEV	7,565
PROF	-0,671
(constant)	-3,204

$$Z = -3,204 + 7,565X_1 + (-0,671X_2)$$

This function then shows what variables are significant in determining the differences in group companies that fall into the categories of financial distress and non-financial distress where X_1 Leverage (LEV) and X_2 Profitability (PROF).

4.3 Observation Classification

The results of the observation classification table show that companies that fall into the financial distress group are worth -1,207 while companies that fall into the non-financial

distress group are worth 1,677. If calculated, the middle value of the two groups shows a value of -0,0002. This means that a company is included in the categories of financial distress and non-financial distress as follows:

1. If the Z-score value owned is $\leq -1,207$, the company is grouped in financial distress.
2. If the Z-score owned is $\geq 1,677$, the company is grouped in non-financial distress.

Based on the classification of financial distress and non financial distress samples, it can be seen that from the initial predictions of samples grouped in the Non-Financial Distress group as much as 136 or 41,8% and the Financial Distress group as much as 189 or 58,2%. Meanwhile, according to the actual results, 134 samples were included in the Non Financial Distress group and 180 samples were included in the Financial Distress group. It turned out that only 134 samples or 98,5% were really predicted to be included in the Non Financial Distress group while the other 2 samples were included in the Financial Distress group. Meanwhile, only 180 samples or 95,2% were correctly predicted to be included in the Financial Distress group while the other 9 samples were included in the Non Financial Distress group.

4.4 Individual Test (T-test)

An individual test is a test that is carried out to see if there is an influence of each independent variable on the dependent variable assuming that other variables are considered constant. In this study, the individual test conducted was to prove whether independent variables consisting of leverage, liquidity, and profitability, as well as firm size, and age as control variables were considered to have an influence on the dependent variable, namely financial distress, where if the sig.t value $< 0,05$ then H_0 was rejected and showed a significant influence on the dependent variable.

Table 5. Individual T-test

Independent Variables & Controls	Coefficient	Probability	Conclusion
Constant	-11,160	0,039	-
Leverage	20,011	0,000	Significant Positive
Liquidity	-0,034	0,785	Insignificant
Profitability	-7,382	0,000	Significant Negative
Firm Size	0,383	0,410	Insignificant
Age	-1,682	0,043	Significant Negative

Leverage

Leverage shows a probability of $0,000 < 0,05$, which means that there is a significant effect of leverage on financial distress. The coefficient value of 20,011 means that there is a positive and significant influence of leverage on financial distress. This research is in line with previous research by Jaafar et al., (2018) ; Farooq et al., (2020) ; Shi & Li, (2021) ; Farooq et al., (2021) ; Isayas, (2021) ; Effendi et al., (2021) which shows that leverage has a positive effect on financial distress

Companies should pay more attention to the ratio of debt they have to control the company's financial condition to avoid the probability of experiencing financial distress in the future. This is because companies with high debt ratios have an obligation to pay high interest expenses. This results in the financial burden that must be borne by the company will be even greater, namely to pay the principal and interest. Therefore, companies that fall into the category of Small and Medium Enterprises in Indonesia need to pay attention to their company's debt ratio. Although it is undeniable that the use of debt is one of the external sources of funds obtained for the company's financial needs. This is because the proportion of debt owned by the company can provide tax benefits which in the sense of being able to reduce the amount of tax that must be paid by the company to the government and thus will benefit the company so that it can get a greater profit. On the other hand, companies also need to be selective in using debt because companies also need to assess and evaluate whether the company has the ability to pay debts and interest expenses from using these debts.

Liquidity

Liquidity shows a probability of $0,785 > 0,05$, which means that there is no significant effect of liquidity on financial distress. The results of this study show that liquidity does not affect financial distress where this result is in line with Asfali's research, (2019); Fitri & Syamwil, (2020) ; Yuliani & Anggaradana, (2021) which shows liquidity does not have a significant effect on financial distress.

Through the research of Fitri & Syamwil, (2020) which uses a sample of manufacturing companies listed on the IDX for the 2014-2018 period, it shows that liquidity does not have a significant effect on financial distress. The liquidity ratio as measured by the current ratio, namely current assets divided by current liabilities in the Fitri & Syamwil study, (2020) is the same as the liquidity ratio used in this study. This means that there are similarities in terms of measurement and it is evident from the results obtained that liquidity does not have a significant effect on financial distress. Liquidity that is measured by the current ratio is considered inappropriate. This is because the liquidity that is channeled using the current ratio is only limited to measuring the company's liquidity in the short term. This is different from looking at the potential for financial distress which aims to see the long-term probability that a company will experience financial distress or not. So it can be concluded that companies with high liquidity cannot be categorized as being included in the non-financial distress category as well as companies with low liquidity will fall into the financial distress category.

Profitability

Profitability shows a probability of $0,000 < 0,05$, which means that there is a significant effect of profitability on financial distress. The coefficient value of -7.382 means that there is a negative and significant influence of profitability on financial distress. This research is in line with previous research by Jaafar et al., (2018) ; Sutra & Mais, (2019) ; Shi & Li, (2021) ; Isayas, (2021) which shows the negative influence of profitability on financial distress. This means that companies with high profitability will minimize the probability of the company experiencing financial distress. This is because companies with high profitability have large profits that are able to cover and meet the expenses of the company. On the other hand, a company with high profitability means that it shows good company performance and thus can reduce the potential risk of the company experiencing financial distress. If you look at the company data included in the PEFINDO 2017-2021 index, the average profitability shows 0.08196 , which means that the company has a fairly good profitability so that the average company is included in the non-financial distress group.

According to the results of Shi & Li's research, (2021) profitability shows a positive influence on financial stability. This means that high profitability will increase the company's financial stability and in another sense companies with high profitability will avoid financial distress which means it is inversely proportional to profitability to financial distress. The high profitability of the company means that the company has the ability to minimize financial instability which is often because companies with high profitability have access to obtain capital from externally at a low cost. Therefore, it is hoped that companies, especially financial managers, can increase company profits to avoid the risk of financial distress. Coupled with the high profitability owned by the company will have the opportunity to obtain debt with low interest so that the risk of financial distress can be minimized.

Firm Size

Firm size shows a probability of $0,410 > 0,05$, which means that there is no significant effect of firm size on financial distress. The results of this study show that firm size does not affect financial distress. These results are in line with the research of Pujiastuti & Yuharningsih, (2014) ; Zhafirah & Majidah, (2019) ; Kiraci, (2019) which shows the insignificant influence of firm size on financial distress. According to the results of research by Pujiastuti & Yuharningsih, (2014) obtaining firm size results has no effect on financial distress, thinking that the size of the total assets owned means that the company has a strong financial position. Even so, it is undeniable that the size of the company seen from the company's assets means that the greater the debt owned. This is because the company's total assets owned are financed by debt.

If you look at the average firm size data of companies listed on the PEFINDO index for 2017-2021 of $12,60388$ with a minimum value of $11,347$ and a maximum of $13,558$, it actually shows that the population of listed companies has a large total asset value. This means that firm size cannot be used as a benchmark for a company to see the possibility of a company experiencing financial distress. The size of a company measured through the Total Assets Log is not able to statistically explain its ability to predict financial distress. On the other hand, when viewed from the total assets of each company listed on the PEFINDO index, it can be seen that the amount of assets owned does not indicate that the company has a good market experience and a large source of funding, which means that the amount of assets owned by the company does not rule out the possibility of the company experiencing financial distress and vice versa.

Age

Age represents a probability of $0,043 < 0,05$ which means that there is a significant effect of age on financial distress. The coefficient value of $-1,682$ means that there is a negative and significant influence on financial distress. This means that the size of a company's age will reduce the possibility of the company experiencing financial distress. The results of this study are in line with Sayari & Mugan, (2013) ; Isayas, (2021) which states that age negatively affects financial distress.

Looking at the company data included in the PEFINDO 2017-2021 index, the average company has an average age of 33 years with a maximum value of 115 years and a minimum of 4 years. From the data, it can be seen that listed companies have an average age of more than 30 years or more than a quarter of the maximum age of companies listed on the PEFINDO index. This means that when the company gets older, the company avoids the risk of financial distress. This is because the age of the company proves that the company has experience so that it is able to survive and be able to overcome all the problems faced.

The results of Isayas (2021) corroborate the results of the research conducted in this study. Through his research, it shows that a company with an old age means that it has carried out operational activities for a long period of time and it is considered that the length of time the company operates indicates stable financial capabilities and a good reputation so that it can survive. From this explanation, it can then be concluded that the greater the age of the company, the lower the potential for the company to experience financial distress. This is because the old age of the company will be considered to have stable financial capabilities so as to be able to minimize the possibility of the company experiencing financial distress in the future. Therefore, it is hoped that with the age of the company, it can be used as a force for financial managers to maintain stable financial performance and minimize the risk of the company experiencing financial distress.

5. CONCLUSION AND IMPLICATION

5.1 Conclusion

The research conducted aims to see the influence of variables consisting of leverage, liquidity, profitability, firm size, and age on financial distress where the research sample used is companies that have been listed on the PEFINDO index for the 2017-2021 period. The research conducted then produces conclusions that can be written as follows:

1. Leverage shows a positive and significant influence on financial distress.
2. Liquidity does not show a significant influence on financial distress.
3. Profitability shows a negative and significant influence on financial distress.
4. Firm size does not show a significant influence on financial distress
5. Age shows a negative and significant influence on financial distress.

5.2 Implication

The results of the research that has been carried out then obtain benefits that can be useful for financial managers, investors, and the government as follows:

1. For Financial Managers

The benefits of this research for financial managers include being able to provide direction to pay attention to the company's financial condition, especially on leverage, profitability, and company age which has an influence on the possibility of the company experiencing financial distress. The financial manager can evaluate the use of debt against total assets. This is because the higher the total liabilities, the greater the debt ratio you have. Therefore, financial managers are expected to pay attention to the total assets owned by the company so that they are minimally funded by debt. Therefore, companies, especially financial managers, need to be selective in owning debt and monitor the company's ability to pay its obligations to avoid financial distress. On the other hand, profitability shows a negative influence on financial distress, which means that the company needs to increase net profit on sales. Meanwhile, the age of the company significantly has a negative influence on financial distress, meaning that the older the company, the less likely the company is to experience financial distress. Regarding the age of the company, it cannot be directly influenced by financial managers, but the age of the company can be used as a strength for companies in reducing financial managers' concerns about the potential for companies to experience financial distress. This in the form of a company with an old age has indicated a stable financial capability and a good reputation so that it can survive. Therefore, financial managers need to maintain the company's performance to remain sustainable.

2. For Investors

Research that has been carried out can provide benefits for investors, among others, it can be used as a reference to assess company performance by paying attention to the variables of leverage, profitability, and age before investors make investment decisions. Investors can choose companies with a debt ratio that tends to be small compared to companies with a large debt ratio to the total assets owned by the company. This high debt ratio can then be used as a risk for the company because high debt will increase the risk of the company experiencing financial distress. In addition, investors can also pay attention to the company's profitability ratio by paying attention to net profit to sales. Investors can pay attention to whether the company has been effective and efficient in carrying out its operational activities by looking at its sales. The higher the sales made by the company, the higher the net profit will be. This is because companies with high net profits will reduce the possibility of the company experiencing financial distress. Finally, investors can choose companies with an old age. This is because a company with an old age means that it has long carried out its business activities due to the company being a trust for the wider community. Therefore, the old age of the company can reduce the possibility of the company experiencing financial distress in the future. Even so, the age of the old company also needs to be considered for investors in choosing a company to be used as an investment place. Investors need to pay attention in terms of debt and profitability ratios to be more accurate in choosing a company as a place for investment that is less at risk of experiencing financial distress.

3. For the Government

The research that has been carried out can provide benefits for the government, among others, to be able to pay attention to Small and Medium Enterprises in Indonesia, especially the four sectors that represent the population of Small and Medium Enterprises in Indonesia,

including the Non-Primary Consumer Goods, Primary Consumer Goods, Infrastructure and Health sectors. The government is expected to help monitor the company's financial ratios, especially debt and profitability ratios. The government is expected to pay attention to the company's debt holdings. Therefore, the government can assist companies in obtaining funds such as providing capital assistance to the company so that the company has enough capital in this case to obtain company assets to make the company more productive which can later increase the company's profitability. On the other hand, companies with a mature age also need to be monitored by the government by paying attention to debt ratios and profitability in order to reduce the risk of experiencing financial distress. Even so, the government is expected to not only pay attention to these four sectors but also pay attention to all companies included in the Small and Medium Enterprises group in Indonesia. This is because Small and Medium Enterprises have a considerable contribution to the Indonesian economy.

6. RECOMMENDATION

The research conducted cannot be separated from the shortcomings and limitations where this research carried out only includes variables of leverage, liquidity, profitability, firm size, and age. Based on the limitations that have been previously presented, suggestions that can be given for future research include considering several things such as adding several variables that show a significant influence on financial distress such as activity ratio (Fitri & Syamwil, 2020); institutional ownership and board of directors (Theresa & Pradana, 2022) ; net profit margin (Purwaningsih & Safitri, (2022).

REFERENCES

- Alifiah, M. N., Salamudin, N., & Ahmad, I. (2013). Prediction of financial distress companies in the consumer products sector in malaysia. *Jurnal Teknologi*, 64(1), 85–91. www.jurnalteknologi.utm.my
- Andika, L., & Nuryaman. (2022). Effect of leverage, profitability and firm size on financial distress (empirical study on transportation companies listed on the indonesia stock exchange 2016-2020). *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 5(3), 25237–25247. <https://doi.org/10.33258/birci.v5i3.6567>
- Asfali, I. (2019). The effect of profitability, liquidity, leverage, activity, sales growth on the financial distress of chemical companies. *Journal of Economics and Management*, 20(2), 56–66. <http://ejournal.unigamalang.ac.id/index.php/JEM/article/view/365>
- Ashraf, S., G. S. Félix, E., & Serrasqueiro, Z. (2019). Do traditional financial distress prediction models predict the early warning signs of financial distress? *Journal of Risk and Financial Management*, 12(2), 1–17. <https://doi.org/10.3390/jrfm12020055>
- Dirman, A. (2020). Financial distress : the impacts of profitability, liquidity, leverage, firm size, and free cash flow. *International Journal of Business, Economics and*

- Law, 22(1), 17–25. https://www.ijbel.com/wp-content/uploads/2020/08/IJBEL22_205.pdf
- Effendi, A. E. P., Mas'ud, M., & Hermawati, A. (2021). The effect of profitability, liquidity, and leverage on the financial distress of manufacturing companies in 2015-2019. The 2nd Widyagama National Conference on Economics and Business (WNCEB 2021), 1(1), 96–106. <http://publishing-widyagama.ac.id/ejournal-v2/index.php/WNCEB>
- Farooq, M., Noor, A., & Fatima, K. (2020). The impact of corporate governance on financial distress likelihood: an empirical evidence. CITY UNIVERSITY RESEARCH JOURNAL, 10(4), 614–634. <http://cusitjournals.com/index.php/CURJ>
- Farooq, M., Qureshi, S. F., & Bhutta, Z. M. (2021). Indirect financial distress costs in non-financial firms: evidence from an emerging market. Pacific Accounting Review, 33(4), 417–434. <https://doi.org/10.1108/PAR-09-2020-0127>
- Fitri, R. A., & Shamwil. (2020). The effect of liquidity, activity, profitability and leverage on financial distress (case study on manufacturing companies listed on the Indonesian stock exchange for the period 2014-2018). Journal of EcoGen, 3(1), 134–143. <http://ejournal.unp.ac.id/students/index.php/pek/index>
- Ikpesu, F. (2019). Firm specific determinants of financial distress: empirical evidence from nigeria. Journal of Accounting and Taxation, 11(3), 49–56. <https://doi.org/10.5897/jat2019.0333>
- Isayas, Y. N. (2021). Financial distress and its determinants: Evidence from insurance companies in Ethiopia. Cogent Business and Management, 8(1), 1–16. <https://doi.org/10.1080/23311975.2021.1951110>
- Jaafar, M. N., Muhamat, A. A., Alwi, S. F. S., Karim, N. A., & Rahman, S. binti A. (2018). Determinants of financial distress among the companies practise note 17 listed in bursa malaysia. International Journal of Academic Research in Business and Social Sciences, 8(11), 800–811. <https://doi.org/10.6007/ijarbss/v8-i11/4956>
- Khotimah, K., & Yuliana, I. (2020). The effect of profitability on the prediction of bankruptcy (financial distress) with capital structure as a moderating variable. ECONOMIC FORUM, 22(1), 37–43. <http://journal.feb.unmul.ac.id/index.php/FORUMMEKONOMI>
- Kiraci, K. (2019). Determinants of financial risk: An empirical application on low-cost carriers. Scientific Annals of Economics and Business, 66(3), 335–349. <https://doi.org/10.2478/saeb-2019-0025>
- Krisnanda, I. G. W., & Ratnadi, N. M. D. (2017). The effect of financial distress, company age, tenure audit, competence of the board of commissioners on the speed of publication of financial statements. E-Journal of Accounting, Udayana University, 20(3), 1933–1960. <https://ojs.unud.ac.id/index.php/Akuntansi/article/view/28355>

- Leon, F. M. (2021). Financial manager for non-financial managers (Rina Astikawati & Evie Kemala Dewi, Eds.; 2nd ed.). Erlangga.
- Liahmad, L., Rusnindita, K., Utami, Y. P., & Sitompul, S. (2021). Financial factors and non-financial to financial distress insurance companies that listed in indonesia stock exchange. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(1), 1305–1312. <https://doi.org/10.33258/birci.v4i1.1757>
- Masdupi, E., Tasman, A., & Davista, A. (2018). The influence of liquidity, leverage and profitability on financial distress of listed manufacturing companies in indonesia. *Advances in Economics, Business and Management Research*, 57, 223–228. <http://creativecommons.org/licenses/by-nc/4.0/>
- Norita, F., & Dahar, R. (2016). Analysis of financial distress predictions using a falmer model with company size and age as explanatory variables (study on manufacturing companies listed on the IDX). *JOURNAL OF ECONOMICS & BUSINESS DHARMA ANDALAS*, 18(2), 281–293. http://ojs.unidha.ac.id/index.php/edb_dharmaandalas/article/view/29
- Pujiastuti, T., & Yuharningsih. (2014). Antecedents of probability of financial distress in manufacturing companies in the country. *Journal of Finance and Banking*, 18(1), 1–13. <http://jurkubank.wordpress.comCorrespondencewithAuthor:TrianiPujiastuti:Tel./Fax.+62274486733>
- Pulungan, K. P. A., Lie, D., Jubi, & Astuti. (2017). The effect of liquidity and leverage on financial distress in ceramic, porcelain, and glass sub-sector companies listed on the Indonesian stock exchange. *Journal of FINANCIAL*, 3(2), 1–9. <https://financial.ac.id/index.php/financial/article/view/51>
- Purwaningsih, E., & Safitri, I. (2022). The effect of profitability, liquidity, leverage, cash flow ratio, and company size on financial distress. *JAE: JOURNAL OF ACCOUNTING AND ECONOMICS*, 7(2), 147–156. <https://doi.org/10.29407/jae.v7i2.17707>
- Saputri, L., & Asrori. (2019). The effect of leverage, liquidity and profitability on financial distress with the effectiveness of the audit committee as a moderating variable. *Accounting Analysis Journal*, 8(1), 38–44. <https://doi.org/10.15294/aaaj.v8i1.25887>
- Sayari, N., & Mugan, F. N. C. S. (2013). Cash flow statement as an evidence for financial distress. *Universal Journal of Accounting and Finance*, 1(3), 95–102. <https://doi.org/10.13189/ujaf.2013.010302>
- Septiani, N. M. I., & Dana, I. M. (2019). The effect of liquidity, leverage, and institutional ownership on financial distress in property and real estate companies. *E-Journal of Management Udayana University*, 8(5), 3110–3117. <https://doi.org/10.24843/ejmunud.2019.v08.i05.p19>

- Shi, Y., & Li, X. (2021). Determinants of financial distress in the European air transport industry: the moderating effect of being a flag-carrier. *PLoS ONE*, 16(11 November), 1–17. <https://doi.org/10.1371/journal.pone.0259149>
- Silalahi, H. R. D., Kristanti, F. T., & Muslih, M. (2018). The effect of financial ratios and company size on financial distress in transportation sub-sector companies listed on the Indonesian stock exchange (BEI) for the period 2013-2016. *E-Proceedings of Management*, 5(1), 796–802. <https://openlibrarypublications.telkomuniversity.ac.id/index.php/management/article/view/6308>
- Sutra, F. M., & Mais, R. G. (2019). Factors affecting financial distress with the Altman Z-score approach in mining companies listed on the Indonesian stock exchange in 2015-2017. *Journal of Accounting and Management*, 16(1), 35–72. <https://ejournal.stei.ac.id/index.php/JAM/article/view/267>
- Theresa, S., & Pradana, M. N. R. (2022). The effect of profitability, cash flow, good corporate governance and company age on financial distress. *EMBA Journal*, 10(1), 250–259. <https://ejournal.unsrat.ac.id/index.php/emba/article/view/37728>
- Tshiaba, S. M., Wang, N., Ashraf, S. F., Nazir, M., & Syed, N. (2021). Measuring the sustainable entrepreneurial performance of textile-based small–medium enterprises: A mediation–moderation model. *Sustainability (Switzerland)*, 13(19), 1–19. <https://doi.org/10.3390/su131911050>
- Wangsih, C. I., Yanti, D. R., Kalbuana, N., & Cahyadi, C. I. (2021). Influence of leverage, firm size, and sales growth on financial distress (empirical study on retail trade sub-sector companies listed in Indonesia stock exchange period 2011-2020). *Business and Accounting Research (IJEBAR)*, 5(4), 180–194. <https://jurnal.stie-aas.ac.id/index.php/IJEBAR>
- Yudiawati, R., & Indriani, A. (2016). Analysis of the effect of current ratio, debt to total asset ratio, total asset turnover, and sales growth ratio on financial distress. *DIPONEGORO JOURNAL OF MANAGEMENT*, 5(2), 1–13. <http://ejournal-s1.undip.ac.id/index.php/management>
- Yuliani, N. K., & Anggaradana, I. N. (2021). The effect of net profit margin, return on assets, liquidity on financial distress (case study on agricultural companies listed on the Indonesian stock exchange for the period 2017-2019). *Scientific Journal of Accounting and Business*, 6(1), 1–9. <http://journal.undiknas.ac.id/index.php/akuntansi>
- Yusbardini, & Rashid, R. (2019). Prediction of financial distress with an Altman approach to manufacturing companies in Indonesia. *Estuary Journal of Economics and Business*, 3(1), 122–129. <https://doi.org/10.24912/jmie.v3i1.3543>
- Zhafirah, A., & Majidah, &. (2019). Analysis of determinants of financial distress (empirical study on textile and garment subsector companies for the period 2013-2017). *Journal of Accounting and Financial Research*, 7(1), 195–202. <https://doi.org/10.17509/jrak.v7i1.15497>

UNDER PEER REVIEW