

Journal of Industrial Engineering & Management ResearchVol. 3 No. 1DOI: <a href="https://doi.org/10.7777/jiemar">https://doi.org/10.7777/jiemar</a>http://www.jiemar.orge-ISSN : 2722-8878

# The Impact Of Current Ratio And Gross Profit Margin Towards Financial Distress In Technology Sector Companies Listed In Indonesia Stock Exchange For Period 2016-2020

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Abstract The growth of the Indonesian economy has increased rivalry among technological companies. Due to the fact that Indonesia's economy is still in its development, firms cannot be guaranteed to survive. Financial ratios can be used to foresee a company's bankruptcy, which has a huge influence on its investors; further analysis and study are required to forecast future financial distress. Thus, the purpose of this study is to ascertain the effect of the current ratio and gross profit margin on financial distress. This study employs a quantitative method based on secondary data. Between 2016 and 2020, the population is Technology Industry Companies Listed on the Indonesian Stock Exchange. A purposive sampling technique is use to determine 35 samples. The findings of this study indicate that Current Ratio does not have significant impact on business financial distress. Finally, both the current ratio and gross profit margin have a simultaneous impact but not significant on a firm's financial distress.

## I. INTRODUCTION

Indonesian economy's development has heightened competition between technology companies. The increasing level of competition among businesses requires them to innovate meticulously, improve performance, develop human resources, and create products that give them a competitive edge. Due to the fact that Indonesia's economy is still developing, there is no guarantee that businesses will survive. They are even more likely to be at risk of financial distress or insolvency. If they had made an incorrect prediction about the company's performance, it would have had fatal consequences. Thus, bankruptcy can be detrimental to one's credit score and should be viewed as a situation in which a business or individual is unable to generate sufficient revenue or income to meet or pay financial obligations. This is frequently the result of high fixed costs, a high proportion of illiquid assets, or revenue that is susceptible to financial downturns.

Typically, this condition does not manifest itself in businesses; rather, there are early warning signs that can be identified if financial statements are analyzed more carefully in a particular way. Bankruptcy can occur as a result of both internal and external factors affecting the business. Financial ratios can be used to predict a company's financial distress. A company's financial distress has a significant impact on its investors, which is why additional analysis and study are required to forecast future financial distress.

The analysis and study's finding will also have an effect on investors' long-term investment decisions. Numerous financial ratios can be analyzed to determine a company's overall financial health and the likelihood of its continued viability as a viable business. Financial ratios that connect and compare the various numbers on a company's balance sheet or income statement are more meaningful than stand-alone numbers such as total debt or net profit. Financial ratios' overall trend, or whether they are improving over time, is also critical.

Current Ratio is one of the financial ratios that measure the liquidity of a company by dividing current asset to current liabilities. In current ratio, we see the ability of the business to meet short-term obligations, typically those due within a year. It explains to investors and analysts how a business might maximize its current assets in order to pay down current debt and other payables.

Another financial ratio is Gross Profit Margin. The gross profit margin is a financial indicator that analysts use to determine a company's financial health. It is calculated as the amount of money remaining after subtracting the cost of goods sold from product sales (COGS). Gross profit margin, which is occasionally referred to as the gross margin ratio, is often stated as a percentage of sales. The gross profit margin percentage of a business is computed by subtracting the cost of products sold from the net sales (gross revenues minus returns, allowances, and discounts). The gross profit margin is then calculated in percentage terms by dividing this value by net sales. If a company's gross profit margin swings significantly, it may indicate bad management methods and/or substandard products. On the other hand, similar swings may be appropriate when a business makes significant operational changes to its business model, in which case transitory volatility should not be a cause for concern. For instance, if a business decides to automate some supply chain tasks, the initial investment may be substantial, but the cost of goods ultimately drops as a result of the reduced labor expenses associated with automation. Adjustments to product pricing may also have an effect on gross margins. If a corporation sells its items at a premium, it will have a higher gross margin, all other factors being equal. However, this can be a difficult balancing act, as if a corporation sets its prices too high, fewer customers will purchase the goods, resulting in market share loss.

The Altman Z-score is the result of a credit quality test that determines a publicly traded manufacturing company's likelihood of bankruptcy. The Altman Z-score is calculated using five financial ratios extracted from a company's annual 10-K report. It makes use of profitability, leverage, liquidity, solvency, and activity to determine whether a business faces a high or low risk of bankruptcy. Altman's Z-Score has been widely accepted as a reliable tool for assessing a company's financial health. Altman developed a multivariate formula for assessing a company's financial health and forecasting the likelihood of financial distress and bankruptcy. Numerous studies evaluating the effectiveness of Altman's Z-Score have demonstrated that the formula has a reliability of between 80% and 90%. (Altman E., 2000).

Company	Year	Current Ratio (X1)	Gross Profit Margin (X <sub>2</sub> )	Altman Z Score (Y)	Altman Z Score Indictors
	2016	1.18	14.77	7.98	Safe
	2017	1.14	15.87	5.74	Safe
PT. Anabatics Technologies Tbk (ATIC)	2018	1.44	15.23	3.09	Safe
	2019	1.10	15.93	2.40	Potentially Bankrupt In A Year
	2020	0.98	15.98	3.43	Safe
	2016	5.08	43.43	3.24	Safe
	2017	5.64	37.37	2.77	Need Attention
PT. Elang Mahkota Technologies Tbk (EMTK)	2018	4.32	31.64	2.68	Need Attention
	2019	3.20	25.02	2.46	Potentially Bankrupt In A Year
	2020	2.56	24.24	4.85	Safe

 Table 1 Data of Current Ratio, Gross Profit Margin and Altman Z Score of 2 Technology Sector Companies Listed in IDX Year 2016-2020

Source: prepared by the writer (2021)

Table 1 shows the Current Ratio, Gross Profit Margin, and Altman Z Score. The results are calculated using the data given in financial statements and annual reports. PT. Anabatic Technologies Tbk current ratio decrease gradually through year 2018 until 2020, eventhough having an increased from year 2017 to 2018. In 2017 to 2018, PT. Anabatic Technologies gross profit margin happened to be decreased, but keep increasing from 2018 until 2020. The Altman Z Score of PT. Anabatic Technologies Tbk was keep decreasing from 2017 until 2019, but manouver significantly in 2020. PT. Elang Mahkota Teknologi Tbk shows their current ratio was gradually decrease through year 2018 until 2020, along with the gross profit margin. The Altman Z Score was decreased from 2016 but increase significantly in year 2020

Thus, this study will determine whether the Current Ratio and Gross Profit Margin have an effect on the company's financial distress. Based on the background of the study above, the research's problem identification is as follows: Does Current Ratio partially impact Financial Distress in Technology Sector Companies Listed in Indonesia Stock Exchange? Does Gross Profit Margin partially impact Financial Distress in Technology Sector Companies Listed in Indonesia Stock Exchange? Does Current Ratio and Gross Profit Margin simulataneously impact Financial Distress in Technology Sector Companies Listed in Indonesia Stock Exchange? Due to the time constraints, the writer will limit himself to research whether there is impact of current ratio and gross profit margin towards financial distress. Current Ratio, Gross Profit Margin, and Altman Z Score will be applied to a sample of technology companies listed on the Indonesia Stock Exchange taken by the writer. The calculations will establish whether Current Ratio and Gross Profit Margin impact Financial Distress.

The objectives of this research is to answer the problems that has been formulated, which is: To identify whether Current Ratio partially affect Financial Distress in Technology Sector Companies Listed in Indonesia Stock Exchange. To identify whether Gross Profit Margin partially affect Financial Distress in Technology Sector Companies Listed in Indonesia Stock Exchange. To identify whether Current Ratio and Gross Profit Margin simultaneously affect Financial Distress in Technology Sector Companies Stock Exchange.

Agency Theory is the theory that describes the interaction between principals and agents. It explains the optimal organizational structure for relationships in which the principal determines the job and the agent performs or makes choices on the principal's behalf (Jensen and Meckling, 1976; Schroeder et al., 2011).

When agents are expected to act in their principal's best advantage, agency theory presupposes that both principle and agent are motivated by self-interest. It is frequently caused by divergent risk perceptions and corporate objectives. Due to the incompatibility of interests and desires, agents will prioritize self-interests that conflict with the principle's objectives. These inefficiencies and financial losses will result. One critique leveled with agency theory is that it "presupposes self-interested agents seeking to maximize their personal economic riches" (Bruce et al., 2005). It is difficult for principals to convince their agents to set their own interests aside. As a result, it is critical to have action and standards in place to resolve the principal-agency conflict.

The goal of this separation system is to increase efficiency and effectiveness in the management of the business by utilizing expert agents. Because the agent holds control of the firm, the agent is obligated to be completely transparent in carrying out company control on behalf of the principle.

Financial reporting is one way to demonstrate accountability. Financial statements are generated to summarize a company's financial position over a specified time period. External parties can use the information contained in these financial statements to assess the company's financial status. Financial ratios are frequently used to assess a company's financial health.

Financial distress is manifested by an inability to meet past-due payments. Liquidity and profitability ratios are strongly linked to financial distress. According to agency theory, it is anticipated to act as a tool to reassure investors that they would obtain a return on their investment.

This is related to investors' perceptions of how managers will benefit them. On the other hand, the presence of bad financial ratios may indicate a state of financial difficulty. These situations may cause investors and creditors to be hesitant to offer funds, as there is no guarantee regarding the return of funds provided.

According to Prastowo (1995), a ratio is the reveal of a mathematical relationship between two amounts or a comparison between two items. According to Mott (1996), a ratio is a statistic extracted from a company's financial accounts and connected together as a percentage or function, such that the final result looks to be related to input-output measurement.

Pankoff and Virgill (1970) claimed that the benefits of financial statements cannot be quantified solely in terms of their correctness in representing the company's financial status in the past, but also in terms of their predictive ability. Pankoff and Virgill also stated that financial statements can be used to aid in investing decision-making.

Historically, financial ratios have been classified into the following categories: Liquidity Ratios, Financial Leverage Ratios, Asset Management / Turnover Ratios, Profitability Ratios, Market Values Ratios

Current ratio (current ratio) is a ratio that shows the company's ability to pay its short-term obligations by using its current assets (Horne and Wachowich, 2009:206). The current ratio is obtained by calculating the comparison between current assets and current liabilities (Hanafi and Halim, 2009:75).

Ratnasari and Handayani (2013) states that the Gross Profit Margin (GPM) is the ratio or balance between the gross profit of the company and the level of sales achieved in the same period. Gross profit margin is a financial measure that managers use to determine the efficiency of a company's manufacturing process for a single product or for multiple products. A business may be more efficient at producing and selling one type of product than it is at creating and selling another type of product. The gross profit margin can be computed for each individual product as long as the business is able to distinguish the direct expenses of production for each product. On a company's revenue statement, the cost of goods sold reflects the direct costs of producing their items. Direct costs are those associated with a specific cost object, which could be a product, department, or project.

Financial distress occurs when a person's financial situation degrades to the point of bankruptcy or liquidation (Platt and Platt, 2002). Financial hardship forecasting is necessary to avoid bankruptcy early on. According to Platt and Platt (2002), information is valuable if a business is experiencing financial distress because it can help accelerate action to prevent problems before bankruptcy occurs, enable management to take merger or takeover actions that will enable the business to pay debts and manage the business effectively, and provide an early warning sign or the beginning of the occurrence of bankruptcy.

Financial distress can be defined in a variety of ways, for example, according to study conducted by Kordestani et al. (2011), a company is in financial distress if it experiences losses for three consecutive years. According to Hapsari (2012), a corporation is in financial hardship if it has lost money before taxes for three consecutive years and has not paid dividends for more than a year. Platt and Platt (2002) define financial distress as the occurrence of three conditions: negative operating profit for several years, cessation of dividend payments, and restructuring or layoffs. According to Ghoul (2004), a business is in financial difficulty if its interest coverage ratio (ICR) is less than one. Similarly, Ghoul (2004), Asquith, Gertner, and Scharfstein (1991), and Salloum, Azzory, and Azzi (2013) use the interest coverage ratio to detect which enterprises are in financial trouble.

Research conducted by Yudiawati, R., & Indriani, A. (2016) The objectives of this paper is to ascertain whether the debt-to-total-asset ratio, total asset turnover, sales growth ratio, and current ratio all impact to financial distress. The population of this study is manufacturing companies that were publicly traded on the Indonesian Stock Exchange between 2012 and 2014. The findings of this study indicate that the debt-to-total-asset ratio, total asset turnover, and sales growth ratio all have an adverse and significant effect on financial distress. On the other hand, their research established that current ratio had a significant positive effect on financial distress.

Research conducted by Ginting, M. C. (2017) the objective of this study is to ascertain whether the current ratio and debt-to-equity ratio have an impact on financial distress. The population for this study is property and real estate companies that were publicly traded on the Indonesian Stock Exchange between 2013 and 2015. The results of this study indicate that both the current ratio and the debt-to-equity ratio have an impact on financial stress. In part, current

ratio has a strong favorable impact on financial distress. On the other hand, the debt-to-equity ratio has a considerable negative impact on financial distress.

Research conducted by Wahyu Widati, L. (1). (2015) The population of this research is manufacture companies listed in the Indonesia Stock Exchange from the year 2010-2013. The result of this research showed that current ratio has negative not significant impact towards financial distress. Debt to equity ratio has positive significant impact towards financial distress. Return on equity has positive significant impact towards financial distress.

## **Impact of Current Ratio on Financial Distress**

Current Ratio is a ratio use to measure the liquidity of a company. It is measured using current assets and current liabilities. This ratio interpreted can or cannot a company paid its short term obligations.

Because its related with paying obligations, current ratio may have affect the company financial distress. So the first hypothesis of this study was as follows:

H<sub>1</sub>: Current Ratio has a significant impact towards Financial Distress in Technology Sector Companies Listed in Indonesia Stock Exchange.

# **Impact of Gross Profit Margin on Financial Distress**

While many technological companies, including huge ones such as Amazon, are initially unprofitable, it is vital to examine their margins; other ratios, such as the gross profit margin, are a solid predictor of future profitability even when there are no current operational profits.

Gross profit margins are used to calculate the gross profit earned on sales. It is only applicable if a technology firm generates revenue, but a high gross profit margin indicates that the company has the potential to become extremely successful as it scales. A low gross profit margin indicates that the business is unable to achieve profitability.

So, gross profit margin may affect company in order to avoid financial distress. The second hypothesis of this study was as follows:

H<sub>2</sub>: Gross Profit Margin has a significant impact towards Financial Distress in Technology Sector Companies Listed in Indonesia Stock Exchange.

### Impact of Current Ratio and Gross Profit Margin on Financial Distress

The writer will investigate whether Current Ratio and Gross Profit Margin have a concurrent effect on Company's Financial Distress. As a result, the following is the hypothesis for this study:

H<sub>3</sub>: Current Ratio and Gross Profit Margin simultaneously have significant affect towards Financial Distress in Technology Sector Companies Listed in Indonesia Stock Exchange.

This is the study's research model, as determined by the literature evaluation, previous research, and hypothesis development. The research model reflects the findings of the study and illustrates the relationship between the Current Ratio and Gross Profit Margin as independent variables and Financial Distress as a dependent variable in this study. Thus, the research model for this study is illustrated below:

Independent Variable

Dependent Variable



## Figures 1 Research Model

Source : prepared by writer (2021)

# **II. METHOD**

The research design is the framework for the writer's selected research technique. This study employs a quantitative research design. This is accomplished by the collection of accurate and quantitative data from the study. The writer will employ statistical and mathematical techniques to arrive at the conclusions.

A population is a collection of persons and things that share similar characteristics and criteria defined by the writer. The population is the group of subjects/objects that the writer will research in order to come to a conclusion about the study's findings. As a result, the population for this study is comprised of all technology sector companies registered on the Indonesia Stock Exchange (IDX) between 2016 and 2020.

A sample is a subset of a population. It is a smaller and more selective subset of the population that shares the population's features. In general, there are numerous sampling techniques. Purposive sampling technique is being used in this study. It is a non-probability sampling technique in which not every element in the population has an equal chance of being sampled. This sampling technique is subjective. The writer will choose companies that he believes are reflective of the population. Thus, the writer's criteria for selecting this sample approach are as follows:

- 1. All of the companies that are listed under Technology Sector Industry in Indonesia Stock Exchange.
- 2. Technology Sector Industry Companies that are listed before 2016.
- 3. Technology Sector Industry Companies that have completed annual reports from 2016 to 2020 respectively.

No.	Criteria	Total
1	All of the companies that are listed under Technology Sector Industry in	27
	Indonesia Stock Exchange.	
2	Technology Sector Industry Companies that are listed after 2016.	(19)

Table 2 Determination of Sample

3	Technology Sector Industry Company that does not complete annual reports starting 2016-2020	(1)	
Totals of company that met the criteria			
Total number of	35		

Source : prepared by writer (2021)

According to Table 2, a total of seven companies were chosen from a pool of twenty-seven technology sector firms. The following is a list of sample companies:

Table	3.	List	of Sam	nle
1 4010	•••	LIDU	or oun	

No.	Code	Company Name		
1	ATIC	Anabatic Technologies Tbk		
2	EMTK	Elang Mahkota Teknologi Tbk		
3	KREN	Kresna Graha Investama Tbk		
4	LMAS	Limas Indonesia Makmur Tbk		
5	MTDL	Metrodata Electronics Tbk		
6	MLPT	Multipolar Technology Tbk		
7	PTSN	Sat Nusapersada Tbk		

Source : prepared by writer (2021)

The data collection approach used in this study is secondary data collection from financial statements and annual reports of corporations. The reports are sourced from the Indonesian Stock Exchange. Additional data sources such as journals, books, and past studies are accessed via the internet.

Operational variables relate to the writer's method for defining and quantifying the variables used in this study. It defines the variables clearly and objectively. The writer employs three factors in this research: current ratio and gross profit margin as independent variables, and financial distress as a dependent variable.

The independent variable is one that influences and has a direct effect on the dependent variable. The following are the independent variables in this study:

1. Current Ratio

Munawir (2005:72) states that the current ratio is the most frequently utilized ratio for analyzing a company's working capital status by comparing total current assets to current liabilities. This ratio indicates that the value of current assets that may be transformed instantly into money is many times the value of short-term debt.

The formula to measure Current Ratio is as follows:

Current Ratio = Current Assets / Current Liabilities

2. Gross Profit Margin

Gross Profit Margin is a ratio that indicates a business's relative profit, calculated as net sales minus cost of goods sold (Kasmir, 2008: 199). This ratio is used to calculate the cost of goods sold.Gross Profit Margin is the ratio of gross profit to total revenue. The higher the Gross Profit Margin, the better the operational circumstances of the business, since it indicates that the cost of

items sold is substantially less than the revenue generated. Additionally, the lower the Gross Profit Margin, the less efficient the business's operations are (Syamsuddin, 2009: 59). The formula for calculating gross profit margin is as follows (Kasmir, 2008: 199):

# Gross Profit Margin = (Net Sales – COGS) / Net Sales

The dependent variable is the one that is influenced directly by the independent variable. According to Yoseph (2012:2), the most frequently used methods for analyzing financial hardship are Altman's Z-Score Analysis, Springate's model, and Zmijewski's model. This study is well-known not only for its simplicity, but also for its accuracy in predicting financial problems. Financial distress analysis is used to forecast a company's future performance as well as to examine and consider a company's current status. But in this study, the writer will use only Altman Z Score and the formula are as follow:

 $Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$ 

Where :

Z = Altman Z Score

 $X_1 = Working Capital / Total Assets.$ 

 $X_2$  = Retained Earnings / Total Assets.

X<sub>3</sub> = Earnings Before Interest and Taxes / Total Assets.

 $X_4$  = Market Value of Equity / Book Value Equity.

 $X_5 =$ Sales / Total Assets.

With benchmark score :

Altman Z Score  $\geq 2,99$  means the company is safe from financial distress.

Altman Z Score between 2,675 - 2,99 means the company need to pay attention in order to avoid financial distress.

Altman Z Score between 1,81 - 2,675 means the company potentially bankrupt in a year.

Altman Z Score below 1,81 means the company in strong potention to go bankrupt.

In this study, descriptive statistics are used to explain, describe, and display the fundamental characteristics of the data in a more appropriate manner. Descriptive statistics are the foundation for practically any quantitative data analysis using simple visual analysis. It assists the writer in simplifying and summarizing the data.

In descriptive data, there are two measures: central tendency and variability. The mean, median, and mode are all measures of central tendency. Meanwhile, standard deviation, variance, and minimum and maximum variables all serve as measures of variability. Calculate the mean or average of a data set by adding all the numbers in the data set and then dividing by the total number of numbers in the data set. By ranking the numbers from least to largest, the median can be determined. The median value will be the midway value. The mode is the most commonly occurring number in a data set. This is the most exhaustive and precise description of dispersion. Variance is defined as the average squared deviation of values from the mean.

The goal of the classical assumption test is to assess and validate the data used in this investigation. The normality test is used to ascertain whether or not data have a normal distribution (Santoso, 2010). To be considered valid research data, they must have a normal distribution or bell-shaped curve, indicating that the data has been dispersed uniformly and accurately represents the population. Typically, the normal distribution curve is bell-shaped. The multicollinearity test is used to ascertain and detect the presence of multicollinearity among variables in a multiple regression model. If there is a significant degree of correlation between the independent variables, the relationship between them and the dependent variable is broken. Thus, a decent regression model should have no correlation between independent variables or should be collinear but not significantly linked (Gani, 2015). Multicollinearity can be determined by examining the data's Variance Inflation Factors (VIF) and Tolerance. The autocorrelation test is used to determine the existence of autocorrelation or the degree of resemblance between a sequence of time series observations. Autocorrelation tests are required for analyzing time series data (Gujarati, 1993), and the data should be devoid of autocorrelation. It demonstrates that no association exists between the time series data. The value of DW is calculated in the final column of the SPSS output Table Model Summary. DW statistics typically have a value between 0 and 4. If the estimated DW value is more than two and is beyond the lower (dL) and upper (dU) bounds, the regression model lacks autocorrelation. If the DW value is between 0 and 2, this shows positive autocorrelation. Finally, a value of 2 to 4 for the DW suggests negative autocorrelation.

The heterocedasticity test is used to check if the regression model generated from the observations exhibits variance inequality. If the residual variance between two observations remains constant, the observation is not heteroscedastic. A decent regression model should be homoscedastic in nature (Ghozali, 2007).

## **III. RESULT AND DISCUSSION**

The purpose of this study is to examine technology industry businesses that are publicly traded on the Indonesian Stock Exchange between 2016 and 2020. Technology is an industry that sells items and services in the fields of electronics, software, computers, and artificial intelligence, among others (IT).

#### **Descriptive Statistics**

Table 4. Descriptive Statistics
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Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std.
					Deviation
CurrentRatioX1	35	,02	5,64	1,8103	1,61362
GrossProfitMarginX2	35	-1,85	56,21	19,6277	13,75086
AltmanZScoreY	35	,01	9,21	3,1851	2,38322
Valid N (listwise)	35				

Source : data processing using SPSS (2021)

Table 4 summarizes the descriptive statistics for the independent variables in this study, including Current Ratio and Gross Profit Margin, as well as the dependent variable Altman Z Score:

1. Current Ratio (X1)

With a total sample size of 35, the Current Ratio (X1) has a minimum value of 0.2, which corresponds to PT Limas Indonesia Makmur Tbk in 2017, and a maximum value of 5.64, which corresponds to PT Elang

Mahkota Teknologi Tbk in 2017. Additionally, the variable has a mean of 1.8103 and a standard deviation of 1.61362.

2. Gross Profit Margin (X2)

Gross Profit Margin (X2) has a minimum value of -1.85 in 2020, representing PT Kresna Graha Investama Tbk, and a maximum value of 56.21 in 2017, likewise representing PT Kresna Graha Investama Tbk. Additionally, the variable has a mean of 19.6277 and a standard deviation of 13.75086.

3. Altman Z Score (Y)

With a total sample size of 35, the Altman Z Score (Y) ranges from 0.01, representing PT Limas Indonesia Makmur Tbk in 2016, to 9.21, representing PT Kresna Graha Investama Tbk in 2016. Additionally, the variable has a mean of 3.1851 and a standard deviation of 2.38322.

This study used standard assumption tests to determine the data's quality. There are four classical hypothesis tests: normality, multicollinearity, autocorrelation, and heteroscedasticity.

The normality test is used to determine whether or not a set of data has a normal distribution (Santoso, 2010). For research data to be considered valid, it must have a normal distribution, which indicates that it must be spread evenly in order to adequately represent the population. The following chart illustrates how to conduct a normality test using histogram analysis and a Normal P-P plot.



Figures 2 Normality Test Using Histogram



Figures 3 Normality Test Using Normal P-Plot

The histogram is bell-shaped, indicating that the variables have a normal distribution. It is not capable of representing both positive and negative skewness. This suggested that the data had been evenly distributed. It is obvious that the data disperse and follow the diagonal line's direction. As a result, the data is disseminated normally.

Utilizing graphic analysis may introduce visual bias into the normalcy test. As a result, this writer uses the Kolmogorov-Smirnov (K-S) test to determine the residual distribution's normality. The Kolmogorov-Smirnov test yields the following result:

One-Sample Kolmogorov-Smirnov Test					
		Unstandardized Residual			
	N	35			
Normal Parameters <sup>a,b</sup>	Mean	0E-7			
	Std. Deviation	2,25548118			
Most Extreme Differences	Absolute	,155			
	Positive	,155			
	Negative	-,139			
Kolm	ogorov-Smirnov Z	,919			
Asymp. Sig. (2-tailed) ,368					
a. Test distribution is Normal.					
b. Calculated from data.					

Table 5. Kolmogorov-Smirnov Test

Source : data processing with SPSS (2021)

The Asymptotic significance (2-tailed) value is 0.368, which is more than 0.05, indicating that the data are normally distributed. As a result, the normality test for this study was passed.

The heteroscedasticity test is used to assess whether the residual variance exhibits variance inequality. A decent regression model is homoscedastic in nature (Ghozali, 2017). Scatterplot analysis and the Glejser test can be used to conduct it. The results of both tests are presented below.



Figures 4. Scatterplot Analysis

Tthe results of the heteroscedasticity test, which reveals that the data has dispersed below and above zero and does not create a pattern.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized	t	Sig.
				Coefficients		
		В	Std. Error	Beta		
1	(Constant)	,880	,395		2,228	,033
	Current Ratio	-,085	,133	-,100	-,636	,529
	Gross Profit	,053	,016	,531	3,381	,002
	Margin					
a. Deper	a. Dependent Variable: RES_2					

Source : data processing with SPSS (2021)

Table 6 represents the results of the Glejser test, the significance (2-tailed) value are 0,529 and 0.002 for both independent variables, in result implies that heteroscedasticity exists. To avoid heteroscedasticity, the significance value must be greater than 0.05. Therefore, data transformation was required.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized	t	Sig.
				Coefficients		
		В	Std. Error	Beta		
1	(Constant)	,634	,250		2,541	,016
	Current Ratio	-,159	,084	-,314	-1,887	,068
	Gross Profit	,022	,010	,368	2,213	,074
	Margin					

## Table 7. Glejser Test After Data Transformation

a. Dependent Variable: ABS\_RES

According to Table 7 the independent variable has a significant value of 0.68 and 0.74, which is greater than 0.05. It indicates that the variable is not heteroscedastic. As a result, heteroscedasticity test has been passed.

The multicollinearity test is used to verify and detect the presence of multicollinearity among variables in a multiple regression model. If there is a significant correlation between the independent variables, the dependent variable's relationship with the independent factors will be disrupted. As a result, a decent regression model should exhibit no correlation between the independent variables. This study will execute this test using the tolerance and variance inflation factors (VIF).

### Table 8. Multicollinerity Test

Coefficients <sup>a</sup>						
	Model Collinearity Statistics					
		Tolerance	VIF			
1	(Constant)					
	CurrentRatioX1	,933	1,072			
	GrossProfitMarginX2 ,933 1,072					
a Dependent Variable: AltmanZScoreY						

Source : data processing with SPSS (2021)

To demonstrate that there is no multicollinearity, Tolerance must be more than 0.10 and VIF must be less than 10. Both the Current Ratio (X1) and Gross Profit Margin (X2) have a tolerance value of 0.933, greater than 0.10, and a VIF value of 1.072, less than 10. Thus, no multicollinearity is detected, and this test is passed.

The autocorrelation test is used to determine the existence of autocorrelation or the degree of similarity between a series of time series Observations. If the studied data is time series data, an autocorrelation test is required. This test employs the Durbin-Watson statistic.

Model Summary <sup>b</sup>								
Model	R	R Square	Adjusted R Square	Std. Error of the	Durbin-Watson			
				Estimate				
1	,323ª	,104	,048	2,32490	,831			
a. Predictors	: (Constant),	GrossProfitMargi	nX2, CurrentRatioX1					
b. Dependent Variable: AltmanZScoreY								
1								

Source : data processing with SPSS (2021)

According to the Table 9,the Durbin-Watson coefficient is 0.831. According to the Durbin-Watson Table, the lower limit (dL) is 1.3433 and the upper bound (dU) is 1.5838 for a total of two independent variables (k=2) and 35 samples (n=35).

As result, the Durbin-Watson test result of 0.831 is rejected. If the result is rejected, the writer conducts a Cochrane Orcutt test to ensure that there is no autocorrelation.

	Coefficients <sup>a</sup>									
Model		Unstandardized Coefficients		Standardized	t	Sig.				
				Coefficients						
		В	Std. Error	Beta						
1	(Consta	-,173	,306		-,566	,576				
	nt)									
	LAG_R	,511	,136	,552	3,743	,001				
	ES									
_										

a. Dependent Variable: Unstandardized Residual

Source : data processing with SPSS (2021)

Table 10 above is the result of data transformation into LAG. The data indicates that the amount of LAG RES is 0.511. The independent variables will be transformed into LAG X1, LAG X2, and LAG Y using this data.

Model Summary <sup>b</sup>												
Model	R	R Square	Adjusted R	Std. Error of the	Durbin-							
			Square	Estimate	Watson							
1	,257ª	,066	,006	1,80489	1,872							
a. Predictors: (Co	a. Predictors: (Constant), LAG X2, LAG X1											
b. Dependent Va	riable: LAG_	Y		b. Dependent Variable: LAG Y								

Source : data processing with SPSS (2021)

According to table 11, the outcome of the Durbin-Watson test after executing the Cochrane Orcutt test is 1.872, indicating that there is no autocorrelation between the independent variables. As a result, the autocorrelation test was passed.

In brief, below is a summary of the outcomes of the traditional assumption tests:

Table 12 Summary of Classical Assumption Test

Classical Assumption Test	Type of Test Used	Results	
Normality Test	Normal P-Plot, Histogram and	Regression model is normally	

	Kolmogorov-Smirnov (K-S)	distributed.
Heteroscedasticity Test	Scatterplot and Glejser Test	Regression model is homogeneous.
Multicollinearity Test	Tolerance and Variance Inflation Factor (VIF)	Regression model has no multicollinearity.
Autocorrelation Test	Durbin-Watson (D-W) and Cochrane- Orcutt Test	Regression model has no autocorrelation.

Source : prepared by the writer (2021)

Multiple Regression Linear Analysis is used to examine the relationship between independent and dependent variables. The analysis's findings are as follows:

Table 13. Multiple Regression Linear Analysis

	Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.			
		В	Std. Error	Beta					
1	(Constant)	1,054	,456		2,313	,028			
	LAG_X1	,361	,245	,256	1,472	,151			
	LAG_X2	,001	,027	<mark>,008</mark>	,048	<mark>,962</mark>			
a Dana	ndant Variabla, L	AC V							

Source : data processing with SPSS (2021)

According to Table 13 LAG X1 denotes the Current Ratio (X1), whereas LAG X2 denotes the Gross Profit Margin (X2). As a result of the analysis, the following multiple regression model was developed:

Y = 1,054 + 0.361X1 + 0.001X2 + e

The regression model is as follows:

- 1. The regression model's constant value is 1,054. This means that if the Current Ratio and Gross Profit Margin are always zero, the Altman Z Score is 1,054.
- 2. Current Ratio has a coefficient of 0,361. This suggests that each intercalation of a single value of Current Ratio results in a increase of 0.361 in the Altman Z Score, providing the other independent variable remains constant.
- 3. The coefficient of Gross Profit Margin is 0.001. This implies that each time a single value of Gross Profit Margin is intercalated, the Altman Z Score increases by 0.001, assuming the other independent variable remains constant.

The purpose of the partial T-Test is to assess the effect of independent variables on the dependent variable Altman Z Score. The independent variables are the Current Ratio and Gross Profit Margin. The significance level serves as the fundamental criterion for T-Test decision-making. If the significance level is less than 0.05 (Sig. 5%), the independent factors have a significant effect on the dependent variable. On the other hand, if the significance threshold is more than 0.05 (Sig. > 5%), it suggests that the independent factors have a negligible effect on the dependent variable.

The following are the decision-making criteria:

- 1. If t count > t table or -t count < -t table, and the significance level  $\alpha$  is less than 0,05, H<sub>0</sub> is rejected and H<sub>1</sub> is approved. This suggests that the independent variable partially has a significant impact on the dependent variable.
- 2. If t count < t table or -t count > -t table, and the significance level  $\alpha$  is greater than 0,05,  $H_0$  is rejected and  $H_1$  is approved. This suggests that the independent variable partially does not has a significant impact on the dependent variable. (Ghozali., 2017)

Table	14.	Result	of Partial	l T-Test
-------	-----	--------	------------	----------

	Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.			
		В	Std. Error	Beta		_			
1	(Constant)	1,054	,456		2,313	,028			
	LAG_X1	,361	,245	,256	1,472	<mark>,151</mark>			
	LAG_X2	,001	,027	<mark>,008</mark>	,048	<mark>,962</mark>			
a. Depe	endent Variable: L	AG Y							

Source : data processing with SPSS (2021)

Based on Table 14, the T-Test shows us:

- 1. Current Ratio has a significance level greater than 0.05 of 0.151. This suggests that the Current Ratio has no noticeable impact on the firm's financial distress, as measured by the Altman Z Score.
- 2. The significance level for Gross Profit Margin is 0.962, which is greater than 0.05. This demonstrates that Gross Profit Margin has a negligible impact on the firm's financial distress as evaluated by the Altman Z Score.

Simultaneous F-Test is used to determine whether all independent variables in this study have an effect on the dependent variable simultaneously.

The significance level serves as the fundamental criterion for F-Test decision-making. If the significance level is less than 0.05 (Sig. 5%), it shows that the independent factors influence the dependent variable concurrently. On the other hand, if the significance level is more than 0.05 (Sig. > 5%), it suggests that neither of the independent factors influenced the dependent variable concurrent

			<b>ANOVA</b> <sup>a</sup>					
	Model	Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	7,116	2	3,558	1,092	,348 <sup>b</sup>		
	Residual	100,986	31	3,258				
	Total	108,103	33					
a. Depe	a. Dependent Variable: LAG Y							
b. Predi	ctors: (Constant), L	AG X2, LAG X1						
1		1 CDCC (2021)						

Table 15. Result of Simultaneous F-Test

Source : data processing with SPSS (2021)

Based on Table 15 the significance level is 0.348, which is greater than 0.05. This shows that neither both Current Ratio nor Gross Profit Margin have no signifanct impact on the firm's financial distress, as measured by the Altman Z Score.

The coefficient of determination is a statistical measure that evaluates an independent variable's capacity to account for a difference in a dependent variable. Typically, the Coefficient of Determination ( $R^2$ ) value is between 0 and 1. A low  $R^2$  value implies that the independent variables have a limited ability to explain the dependent variable and, conversely, a high  $R^2$  value suggests that the independent variables have an unlimited potential to explain the dependent variable.

Table 16 Test of Determination (R<sup>2</sup>)

Model Summary <sup>b</sup>								
Model	R	R Squa	Adjusted R Square	Std. Error of the Estimate	Durbin-			
		re			Watson			
1	<mark>,257ª</mark>	,066	<mark>,006</mark>	1,80489	1,872			
a. Predictors: (Constant), LAG_X2, LAG_X1								
b. Dependent Variable: LAG Y								

Source : data processing with SPSS (2021)

According to the Table 16, Adjusted  $R^2$  equals 0.006. Adjusted  $R^2$  will be used in this study because there are more or equal than two variables. Adjusted  $R^2$  reveals that the independent variables Current Ratio and Gross Profit Margin explain 6% of the dependent variable, Altman Z Score. Meanwhile, the remaining 94 percent of the Altman Z Score is explained by unstudied variables.

### **Impact of Current Ratio on Financial Distress**

The hypothesis test results indicate that the first hypothesis  $(H_1)$  is rejected, indicating that Current Ratio has a negative and insignificant impact on a firm's financial distress. Current Ratio has a significance value of 0.151, which is more than 0.05, according to the T-Test result. This implies that the presence of the Current Ratio has a small effect on financial strain.

The findings of this study match those of Listyorini Wahyu Widati and Bayu Adhi Pratama (2015). They discovered that the Current Ratio had no obvious effect on the financial difficulty of a business.

### **Impact of Gross Profit Margin on Financial Distress**

The findings of the hypothesis test reveal that the second hypothesis  $(H_2)$  is rejected, implying that Gross Profit Margin has a positive and significant effect on a firm's financial difficulty. According to the T-Test result, Gross Profit Margin has a significance value of 0.962, which is greater than 0.05. This indicates that the Gross Profit Margin has a significant effect on financial distress.

This study's findings corroborate those of Herlambang Pudjo Santosa (2017). He discovered that the Gross Profit Margin has no discernible impact on a business's financial distress. **Impact of Current Ratio and Gross Profit Margin on Financial Distress** 

The simultaneous F-Test results indicate that the Current Ratio and Gross Profit Margin both influence on the firm's financial distress, but not significant. The F-Test indicates that the significance level of 0.348 exceeds than 0.05. As a result, this research's third hypothesis  $(H_3)$  is rejected.

Adjusted R2 equals 0.06 and shows that Current Ratio and Gross Profit Margin affect 6% of financial distress (Altman Z Score). Meanwhile, the remaining 94% of financial distress (Altman Z Score) is explained by unstudied variables.

The following summarizes the findings of the hypothesis tests.

	Hypothesis	Type of Test	Significant Result	Result
H <sub>1</sub>	Current Ratio has a significant	T-Test	0.068	H <sub>1</sub> Rejected
	impact towards Financial Distress in			
	Technology Sector Companies Listed in			
	Indonesia Stock Exchange.			
H <sub>2</sub>	Gross Profit Margin has a significant	T-Test	0.034	H <sub>2</sub> Rejected
	impact towards Financial Distress in			
	Technology Sector Companies Listed in			
	Indonesia Stock Exchange.			
H <sub>3</sub>	Current Ratio and Gross Profit Margin	F-Test	0.047	H <sub>3</sub> Rejected
	simultaneously have significant			
	impact towards Financial Distress in			
	Technology Sector Companies Listed in			
	Indonesia Stock Exchange.			

**Table 4. Summary of Hypothesis Test Results** 

Source : prepared by writer (2021)

#### **IV.CONCLUSIONS**

The goal of this study is to ascertain the effect of the current ratio and gross profit margin on the financial distress of a business. The research sample consists of seven businesses that were listed in the Technology Industry sector on the Indonesian Stock Exchange from 2016 to 2020. Based on the findings of this research and the discussion in Chapter 4, the following are the summarize that can be drawn:

- 1. Current Ratio has no discernible effect on financial distress among technology industry firms that were listed on the Indonesia Stock Exchange between 2016 and 2020. Futhermore, Current Ratio has a positive influence towards financial distress, so that means if Current Ratio increase, financial distress will increase slightly.
- Gross Profit Margin has no discernible effect on financial distress for technology businesses listed on the Indonesian Stock Exchange from 2016 to 2020. Moreover, Gross Profit Margin has a positive influence towards financial distress, so that means if Gross Profit Margin increase, financial distress will also increase slightly.
- 3. Current Ratio and Gross Profit Margin have no discenible effect on financial distress among technology industry companies that were listed on the Indonesian Stock Exchange between 2016 and 2020.

According to Agency Theory, the financial performance of a company influences the investors' (principal) beliefs on how management (agent) will benefit them. Financial ratios are expected to operate as a reassuring tool for investors, ensuring that they will receive a return on their investment. On the other hand, the occurrence of poor financial ratios may signal financial distress, especially liquidity ratios and profitability ratios. These circumstances may cause investors to be hesitant to invest funds, as there is no certainty on the return of their investment.

In this study, both current ratio and gross profit margin partially and simultaneously have positive but not significant impact towards financial distress because technology sector industry is unique differ to other sector industry. This proven by the result of multiple regression analysis and test of determination ( $\mathbb{R}^2$ ). In multiple regression analysis, the significant result for current rato is 0,151 (greater than 0,05) meaning that current ratio does not has a significant impact towards financial distress, for gross profit margin, using multiple regression analysis, the result is 0,962 (greater than 0,05) meaning that gross profit margin does not has a significant impact towards financial distress. Test of determination shows that the adjusted  $\mathbb{R}^2$  is 6%, meaning that current ratio and gross profit margin explain on 6% out of 100% of financial distress indicator, which is Altman Z Score, and the other 94% is represent by other variables which is not studied in this research.

Based on the conclusions above, the writer may make the following recommendations for future research:

- 1. The following writer can incorporate other independent factors that are suspected of having an effect on a company's financial distress.
- 2. The subsequent writer may increase the sample size or use companies from sectors other than technology as the research sample. Due to the fact that this research is limited to a single sector company. Different sectors of business may produce varying results.
- 3. The subsequent writer can conduct a longer period of research to ascertain the impact of Current Ratio and Gross Profit Margin on financial distress over the long run and provide more accurate results.
- 4. The following research may employ additional financial distress indicators in addition to the Altman Z Score, as there are two others: interest coverage ratio and logistic regression.

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