An Investigation of Factors Affecting Financial Distress: Analysis Among PN17 Companies in Bursa Malaysia

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ABSTRACT

Financial distress is a condition of problems in corporate financing, in which there is a means of inability to pay to a creditor and is at risk of bankruptcy in the future. Those publicly listed companies having financial problems and any related issues will fall under Practice Note 17 (PN17). To have a better understanding, this study has aimed to examine the factors affecting financial distress among the PN17 companies in Bursa Malaysia for ten years of analysis, using data from 2008 to 2017. A total of 154 observations have been taken from 17 companies by using the Pooled Ordinary Least Square (POLS) and Random Effect Model (Breusch and Pagan Lagrangian Multiplier Test). Profitability, size of firm, sales growth, liquidity, and leverage have been chosen as independent variables, while total debt acts as a dependent variable for this investigation. Findings suggest that liquidity, size of firm, and leverage have a significant impact on financial distress, while profitability and growth sales have it in the other direction. A further implication is that it is beneficial for those companies and investors to make wise decisions on short- and long-term investments towards their shareholdings.

Keywords: *Financial distress, Random Effect Model, PN17 companies.*

1.0 INTRODUCTION

Financial distress is a situation under which a corporation or person is unable to produce profit or revenue because it/he or she is unable to fulfil its/his or her financial obligations or cannot pay them. It is usually attributed to high labour

costs, illiquid assets, or economic-downturn sensitive sales. The estimation of financial distress has been popular in the area of finance research around the world in terms of the potential of the current ratio and stock market. Financial distress can be identified as dynamic because it uses historical data as the evidence of the potential financial situation of a company, for instance, the financial ratio used to make a prediction of the company's failure (Md Zeni & Ameer, 2010). Looking back on the Asian financial crisis in 1997, it has caused an example of financial distress and massive restrictions faced by most of countries, such as Malaysia, Indonesia, Korea, Thailand, and others (Choy et al., 2011). In addition, Waqas and Md-Rus (2018) have also claimed that the situation of financial distress would make firms financially fail in a long term due to the fact that the cash inflow of the firms is not sufficient to bear their expenses. The ultimate case is that those companies are in a high risk of bankruptcy, which may lead to a negative impact on their shareholders as well.

In Malaysia, companies that have fallen under financial distress are classified as Practice Note 17 (or known as PN17) companies, which are under the protection of Section 276 of the Company Act 1965 and monitored by the regulatory body to address financial distress and predict bankruptcy. For that reason, those PN17 companies need to issue their reports to the Board of Approval to restructure and maintain their statuses in the list. The forecasting of the PN17 companies' financial distress has attracted the attention of financial economics as it can provide a signal to the companies' financial conditions. In order to measure the financial-distress conditions, several methods have been extensively used by many researchers, such as the Altman Model, Logit Model, Regression Model, Survival Analysis, and Probit Model (Low et al., 2001; Sulaiman et al., 2001; Aghaei et al., 2013).

The prediction of financial distress has been one of the most challenging issues in financial sciences in recent decades and many studies have been conducted to design appropriate models to predict the bankruptcy of companies. Mohammad et al. (2003) have stated that many researchers have attempted to identify and predict variables used to appropriate the models for the prediction of bankruptcy; however, they have still not reached the same final results, therefore, the researchers have continued to increase the accuracy of the variables and models. Besides, inappropriate management in terms of qualities and skills, corporate policy, and poor strategies may also affect the bankruptcy of companies (Ooghe & Prijcker, 2008). By investigating this issue, it is expected to reduce the impacts of the sudden announcement of bankruptcy by using appropriate measures and restructuring plans, so that financial distress and bankruptcy of companies are able to be prevented (Aghaei et al., 2013).

The basic studies of financial distress are important to determine whether the companies are in a financially healthy or unhealthy condition. Therefore, this study has gathered some related financial ratios to analyse corporate failure of the 17 listed PN17 companies in Malaysia from 2008 to 2017. The investigation has further discussed the factors that may affect financial distress experienced by the PN17 companies in Bursa Malaysia.

2.0 LITERATURE REVIEW

According to Gruszczynski (2004), total debt is one of the best predictors to analyse financial distress. It is because higher debt will easily predict the performance of a company's financial distress in a few years. Gruszczynski (2004) has also stated that total debt is significantly related to financial distress as it measures the real debt of a company's performance.

Meanwhile, profitability is one of the factors which contributes to a firm's financial distress. It refers to an entity's ability to generate profit in its business (Jaafar et al., 2018). To measure a financial condition, profitability ratios have always been chosen as they represent a measure of return on companies' investment and the financial health of the companies. High profitability ratios show that the companies are profitable and vice versa. However, Waqas and Md-Rus (2018) and Alifiah et al. (2013) have discovered a negative relationship between profitability ratios as represented by net income to total assets ratio and financial distress. This is supported by Thim et al. (2011) that have stated that profitability has an inverse or negative relationship with financial distress. Moreover, Yadiati (2017) has also come out with a result that there is no significant relationship between profitability and financial distress because it does not influence the financial distress of companies. Though, Gruszczynski (2004), Rafatnia et al. (2020), and Dirman (2020) have argued that profitability is positively related with financial distress as higher profitability will result in higher probability in order to stay in a good financial state. Therefore, it can be concluded that profitability is an important financial ratio to determine financial distress as it is linked to a fewer chances of financial distress.

A study conducted by Rahmat et al. (2009) has found that there is a positive relationship between firm size and financial distress. The evidence shows that the size of a company is able to directly influence the amount of its debt. Lower debt will be cheaper for big firms and vice versa. However, there is a different result stating that the size of a company has a significant finding in financial risks.

Nonetheless, Timmermans (2014) has concluded that the recalibrated model has found that size becomes a less important factor in predicting bankruptcy. In opposite, Dirman (2020) has found that firm size has a negative relationship with total debt due to the fact that the greater total of assets owned by a company will have an impact on the increasing ability to pay off its corporate obligations in the future, which means that the company can avoid financial problems.

In a study conducted by Platt and Platt (2008), it is found that sales growth is significant to financial distress in Asian and European countries. They have concluded that, when there is a larger growth in sales, a financial-distress possibility will be at a lower rate. In other words, a larger growth of sales will lead to lower financial distress. Meanwhile, findings taken from Bei and Wijewardana (2012) have discovered that there is a positive relationship between firms' sales growth and financial distress as there is a higher profit growth in companies in Sri Lanka. This shows that the growth of the companies implies the expansion of sales, profits, and assets, which is important for the companies' performance. Therefore, the growth of the companies will help to increase shareholder's equity and the size of the companies. However, Roslan (2015) has found that there is no significant relationship between sales growth and companies' financial distress.

Liquidity ratios represent a firm's ability to pay its debt when due. High liquidity ratios demonstrate that, when it comes due, the company will pay its debt, and vice versa. Hence, Alifiah et al. (2013) and Platt and Platt (2008) have expected that there is a negative relationship between liquidity ratios as represented by a current ratio, quick ratio, working capital ratio, and financial distress as these factors can help firms to pay off their debts. In the interim, Pranowo et al. (2010) have also found that a debt service ratio for liquidity has a negative relationship with financial distress. This study has provided some evidence on the use of accounting information (financial ratios) that is used as an indicator of the present, past, and future performance. Compared to different results yielded by Rafatnia et al. (2020) and Md Zeni and Ameer (2010), it is stated that liquidity is a positive and significant predictor to financial distress, showing that the liquidity position of companies is the main cause of financial distress. Yet, Dirman (2020) has discovered that liquidity has no effect towards financial distress. This situation may be due to any amounts of a company's liquidity that will not affect the possibility of it experiencing financial distress.

Meanwhile, leverage ratios are the proportion of a company's capital raised through fixed interest borrowings. Generally, a company that has a high borrowing level is considered highly geared, which means that it has to generate more income in

order to pay its obligations, and vice versa. On the other hand, a company that is mainly financed by equity capital is said to be lowly geared. Therefore, this study has expected that there is a positive and significant relationship between leverage ratios as represented by debt ratio and financial distress (Alifiah et al., 2013; Platt & Platt, 2008; Pranowo et al., 2010; Rafatnia et al., 2020). Another perspective has been brought by Waqas and Md-Rus (2018) who have argued that there is a negative relationship between leverage and financial distress, revealing that a firm has an ability to service its payments, which can reduce the probability of its financial performance. Nevertheless, Dirman (2020) has found that leverage brings no effect to financial distress. Taking into account that a company has high total liabilities, given the total assets owned by the company are also high, hence, it is able to pay the liabilities with the assets owned.

3.0 METHODS

3.1 Research Design

The functional equation model below has been constructed. It has been used to examine the relationship between total debt and the selected independent variables, as follows:

$$TD = f\,(PROF, SIZE, GROWTH, LIQ, LEV)$$

The estimated equation model can be formulated as follows:

$$TD_{i,t} = \alpha + \beta_1 PROF_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 LIQ_{i,t} + \beta_5 LEV_{i,t} + \varepsilon_{i,t} \qquad [1]$$

The equation descriptions are as follows:

α	: Constant
TD	: Total debt (percentage)
SIZE	: Size of firm (percentage)
GROWTH	: Sales growth (percentage)
LIQ	: Liquidity (percentage)
LEV	: Leverage (percentage)
ε	: Error term
i	: Sample unit of panel

t   : Time of period

The data have been analysed by using descriptive statistics, correlation analysis, and panel-data regression analysis that have been carried out to examine the factors affecting financial distress on the selected PN17 companies in Bursa Malaysia. For the estimation purpose, the most common models, such as the Pooled Ordinary Least Square (POLS) regression, Fixed Effects Model (FEM), and Random Effects Model (REM), have been used. Therefore, Hausman test has been conducted to see whether REM or FEM is more appropriate.

3.2 Research Framework

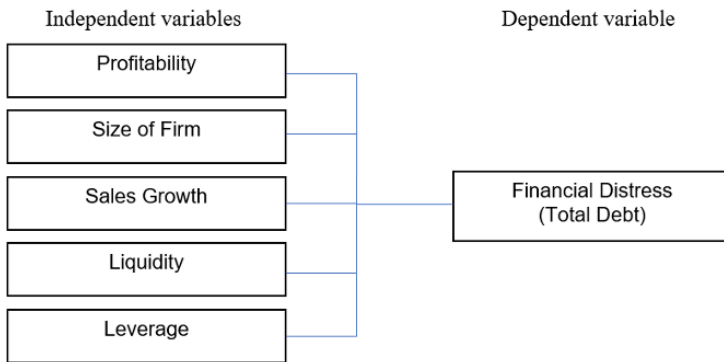Figure 1 below illustrates the research framework for this study.

Figure 1: Research Framework

3.3 Hypotheses

Based on the theoretical framework displayed above, the following hypotheses have been generated:

3.3.1 Financial Distress and Profitability
H0: There is an insignificant relationship between profitability and financial distress of the PN17 companies in Bursa Malaysia.
H1: There is a significant relationship between profitability and financial distress of the PN17 companies in Bursa Malaysia.

3.3.2 Financial Distress and Size of Firm

H0: There is an insignificant relationship between size of firm and financial distress of the PN17 companies in Bursa Malaysia.
H1: There is a significant relationship between size of firm and financial distress of the PN17 companies in Bursa Malaysia.

3.3.3 Financial Distress and Sales Growth
H0: There is an insignificant relationship between sales growth and financial distress of the PN17 companies in Bursa Malaysia.
H1: There is a significant relationship between sales growth and financial distress of the PN17 companies in Bursa Malaysia.

3.3.4 Financial Distress and Liquidity
H0: There is an insignificant relationship between liquidity and financial distress of the PN17 companies in Bursa Malaysia.
H1: There is a significant relationship between liquidity and financial distress of the PN17 companies in Bursa Malaysia.

3.3.5 Financial Distress and Leverage
H0: There is an insignificant relationship between leverage and financial distress of the PN17 companies in Bursa Malaysia.
H1: There is a significant relationship between leverage and financial distress of the PN17 companies in Bursa Malaysia.

3.4 Variable Description

3.4.1 Financial Distress (Total Debt)

Financial distress can be determined as total debt. It can be short-term or long-term debt. The data have been collected from the Thomson Reuters Eikon database for the 17 PN17 companies in Bursa Malaysia.

3.4.2 Profitability

Profitability has been measured by net income or earnings after tax of the companies in the Thomson Reuters Eikon database from 2008 to 2017.

3.4.3 Size of firm

Size of company refers to the log total assets. The data have been obtained from the Thomson Reuters Eikon database.

3.4.4 Liquidity

Liquidity has been measured by dividing total current assets with total current liability. The data have been obtained from the Thomson Reuters Eikon database.

3.4.5 Growth

Sales growth has been measured based on the revenue in the income statement of each company from 2008 to 2017.

3.4.6 Leverage

Leverage is a technique used to purchase an asset. It has been calculated by total debt to total equity based on the database of the Thomson Reuters Eikon from 2008 to 2017.

3.5 Data Analysis

3.5.1 Descriptive Statistics

Descriptive analysis has assisted the study to reveal the data's characteristics. It has been used to describe the basic variables of the study, which are the dependent and independent variables of the sample. Besides, the descriptive statistics has also been used to analyse the mean, maximum, minimum, and standard deviation, which are described in the simple summary of the study.

3.5.2 Pearson's Correlation

Pearson's correlation has been used to indicate the positive and negative relationships and measure the strength of the relationships between the dependent variable and independent variables. It has also been used to verify whether the model involves a multicollinearity problem or vice versa.

3.5.3 Pooled Ordinary Least Square (POLS) Multiple Regression Model

This study has used the pooled ordinary least square regression model where the data have been pooled together to determine the dependent and

independent variables. The pooled ordinary least square method has been used to run the panel-data model. The regression result has revealed to the researchers the coefficient and T-statistics of the independent variables. In addition, it has also been used to determine the significance of the independent variables by investigating the probability value of the result. There are three levels of significance, which are the 1%, 5%, and 10% significance levels.

3.5.4 Random Effect Model (REM)

This model is a factor of which its levels are considered a random sample from the same population. It has been used in the analysis of hierarchical or panel data when one assumes no fixed effects. The random effect model is an unobserved variable assumed to be uncorrelated with all the observed variables. The random effect model may still be desirable under the circumstances even though the assumption will often be wrong. However, this model can be estimated by using the Generalised Least Square method.

3.5.5 Breusch and Pagan Test or Lagrangian Multiplier (LM) Test

Breusch Pagan has been used to test heteroskedascity in the regression model. It has also been used to choose the POLS method or REM. The hypothesis for this study is as follows:

H0: Choosing the Pooled Ordinary Least Square
H1: Choosing the Random Effect Model/Panel data

3.6 Results Analysis
This section illustrates the results and interpretation of the relationships between total debt and the five indicators employed in this study and discusses the output of the results.

3.6.1 Descriptive Statistics

Table 1: Descriptive Statistics

	TD	PROF	GROWTH	LIQ	LEV	SIZE
Mean	189.11	-18.57	251.83	1.61	1.58	5.62
Maximum	1947.80	560.40	2457.90	10.09	35.06	7.83
Minimum	0.00	-906.70	0.00	0.00	0.00	2.11
Std. Dev.	381.467	128.42	391.27	1.62	3.82	1.06
Obs	154					

Table 1 shows the summary of the descriptive statistics that comprises the measures of central tendency. The highest standard deviation is recorded by sales growth, which indicates that it has the highest variability of the data since the standard deviation is higher than the mean. A lower profitability (as in the mean) can lead to higher debt or financial distress. This is because lower profitability means that the companies' performance is in the unhealthy financial condition (Alifiah et al., 2013). Moreover, sales growth has the highest mean and standard deviation, suggesting that a higher sales growth will lead to higher financial distress (Bei & Wijewardana, 2012; Platt & Platt, 2008). The average in liquidity is 0 minimum to 10.09% maximum. The result shows that there is a high risk in the PN17 companies because there is insufficient liquidity.

3.6.2 Pearson's Correlation

Based on the correlation results presented above, it is found that there are no serious multicollinearity problems existing since the numerical data of the correlation coefficient between the two independent variables for all the independent variables are lesser than 0.8. Meanwhile, profitability has a negative relationship with total debt, giving a direction of higher financial distress in the companies (Alifiah et al., 2013; Thim et al., 2011; Waqas & Md-Rus, 2018). In the interim, sales growth (Bei & Wijewardana, 2012) and size of firm (Rahmat et al., 2009) display a positive relationship with financial distress, indicating that the sales in the companies can be affected by debt, while size of firm affects the size of the companies. Likewise, leverage also demonstrates a positive relationship with financial distress, which is similar to the result generated by Alifiah et al. (2013), Platt & Platt (2008), Pranowo et al. (2010), and Rafatnia et al. (2020). Nonetheless, liquidity has a negative relationship with financial distress (Alifiah et al., 2013; Platt & Platt, 2008; Pranowo et al., 2010). In order to confirm that there is no presence of the multicollinearity problems, the variance inflation factor (VIF) test has been carried out.

Table 2: Pearson's Correlation

	TD	PROF	GROWTH	LIQ	LEV	SIZE
TD	1.000					
PROF	-0.198	1.000				
GROWTH	0.023	0.219	1.000			
LIQ	-0.268	0.271	0.416	1.000		
LEV	0.487	-0.034	0.033	-0.200	1.000	
SIZE	0.534	-0.040	0.430	0.153	0.173	1.000

3.6.3 Variation Inflation Factor (VIF)

Multicollinearity can exist when variables reflect similar factors. This can be traced when the mean value of the variance inflation factor (VIF) is more than 5. Based on the result shown in Table 3, it is found that the mean of the VIF is 1.27, which is lower than 5.00. This means that there is no multicollinearity problem existing in this study.

Table 3: Variation Inflation Factor

Variable	VIF	1/VIF
saleofgrowth	1.50	0.668315
liquidity	1.34	0.748799
lgsize	1.30	0.771464
profitabil~y	1.12	0.891418
leverage	1.09	0.913972
Mean VIF	1.27	

3.6.4 Pooled Ordinary Least Square (POLS) Regression Analysis

Table 4: Pooled Ordinary Least Square Regression Analysis

Source	SS	df	MS			
				Number of obs =		154
				F(5, 148) =		34.25
Model	3609177.06	5	721835.413	Prob > F	=	0.0000
Residual	3119118.19	148	21075.1229	R-squared	=	0.5364
				Adj R-squared =		0.5208
Total	6728295.25	153	43975.786	Root MSE	=	145.17

totaldebt	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
profitabil~y	-.1656349	.1225452	-1.35	0.179	-.4077991	.0765294
saleofgrowth	-.133427	.0747094	-1.79	0.076	-.2810619	.014208
liquidity	-26.84912	8.247001	-3.26	0.001	-43.14621	-10.55204
leverage	19.95646	3.341863	5.97	0.000	13.35253	26.56039
lgsize	110.2241	12.64666	8.72	0.000	85.23276	135.2154
_cons	-457.6959	66.84244	-6.85	0.000	-589.7847	-325.607

Note: The dependent variable is financial distress (DEBT), while the independent variables are profitability (PROF), size of firm (SIZE), sale of growth (GROWTH), liquidity (LIQ), and leverage (LEV).

Table 4 above shows the result of the POLS regression. The overall R-squared shows that 52.08% of the variation changes in total debt can be explained by all the independent variables (profitability, size of firm, sales growth, liquidity, and leverage), while the remaining 47.92% is unexplained. Looking at the p-value of F-statistic, it is shown that liquidity, size of firm, and leverage are the significant variables towards financial distress.

Profitability presents a negatively insignificant result due to its value of probability at 0.0100 at the 5% level of significance. Despite this, T-statistic shows the profitability value of 1.35, which is lesser than 2, indicating that it is insignificant based on the rule of thumb. Therefore, the null hypothesis (H0) from the proposed sign of profitability is accepted and the alternate hypothesis (H1) is rejected. On the other hand, a positively significant association between leverage and total debt is parallel with the result generated by the majority of the previous researchers, such as Alifiah et al. (2013) and Pranowo et al. (2010). The researchers have implied that, when the level of debt to equity is higher, the creditors will have difficulties to repay their debts. Furthermore, Platt and Platt (2008) have also established the idea that a rise in debt services will affect the income of the companies and increase their debt burdens.

Meanwhile, size of firm has a positive and the most significant relationship with financial distress. Conflictingly, the previous researchers have argued that a smaller firm may not affect financial distress. However, liquidity is found to have a negative and significant relationship with financial distress, which indicates that the failure to have enough liquidity leads to poor financial health, therefore, the companies are unable to fulfil their financial obligations. Based on Alifiah et al. (2013) and Pranowo et al. (2010), it is recommended that those companies need to maintain sufficient liquidity to prevent bankruptcy or financial distress. This is because the negative relationship will lower the probability of bankruptcy in the companies.

Even though sales growth is not a significant factor that influences financial distress, the relationship of the independent variables tallies with the result generated by Platt and Platt (2008). Thus, the null hypothesis (H0) from the proposed sign of profitability is accepted and the alternate hypothesis (H1) is rejected.

3.6.5 Breusch and Pagan Multiplier Test

Table 5: Breusch and Pagan Multiplier Test

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Test:   Var(u) = 0
                        chi2(1) =    54.75
                    Prob > chi2 =    0.0000
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Table 5 explains that Prob > chi2 is below 0.05, therefore, the alternate hypothesis is accepted while the null hypothesis is rejected.

H0: Choosing the Pooled OLS Model

H1: Choosing the Random Effect Model

3.6.6 Random Effect Model

Table 6: Random Effect Results

TD	Coefficient	Std error	Z	P>|z|	95% Conf	Interval
PROF	-0.2031	0.1033	-1.97	0.049	-0.4058	-0.0006
GROWTH	0.0592	0.0986	0.60	0.548	-0.1340	0.2523
LIQ	-29.4873	8.8367	-3.34	0.001*	-46.8068	-12.1677
LEV	17.6155	2.9226	6.03	0.000*	11.8873	23.3437
SIZE	112.4234	20.2637	5.55	0.000*	72.7073	152.1396
_Cons	-498.0955	109.8153	-4.54	0.000	-713.3296	-282.8614
No of obs	154					
Prob (F-stats)	0.0000					
R-squared	0.5079					

Note: The dependent variable is financial distress (DEBT), while the independent variables are profitability (PROF), size of firm (SIZE), sale of growth (GROWTH), liquidity (LIQ), and leverage (LEV).

The Random Effect Model (REM) determines the significant relationship between the dependent variable and independent variables. Based on the table shown above, 50.79% of the total debt can be explained by all the independent variables. For determining the significant variables, liquidity is recorded to be a negatively significant relationship with financial distress (Alifiah et al., 2013; Platt & Platt, 2008; Pranowo et al., 2010), which confirms that lower liquidity will lead to higher debt in the companies, thus, makes them difficult to pay off their debts.

The study has discovered that every 1% increase of leverage will increase financial distress or total debt by 17.616%. Thus, the result of leverage shows that there is a significantly positive relationship with financial distress, which is consistent with the result yielded by Alifiah et al. (2013), Pranowo et al. (2010), Platt and Platt (2008), and Rafatnia et al. (2020). Another positively significant result is size of firm (Rahmat et al., 2009). However, sales growth shows a positive correlation (Bei & Wijewardana, 2012) but no significant relationship with financial distress (Roslan, 2015). Even though profitability is the insignificant variable that affects financial distress, it shows a negative relationship with the latter. The result is in line with Alifiah et al. (2013), Thim et al. (2011), and Waqas and Md-Rus (2018).

3.6.7 Summary of Results

Table 7: Summary of Analysis

Independent Variable	Finding	Supported by	Hypothesis Accepted or Rejected
Profitability (PROF)	Negative and insignificant	Alifiah et al. (2013), Waqas & Md-Rus (2018), Thim et al. (2011)	H_1 Rejected
Size of firm (SIZE)	Positive and significant	Rahmat et al. (2009)	H_1 Accepted
Sales growth (GROWTH)	Positive and insignificant	Bei & Wijewardana (2012)	H_1 Rejected
Liquidity (LIQ)	Negative and significant	Thim et al. (2011), Pranowo et al. (2010), Platt & Platt (2008)	H_1 Accepted
Leverage (LEV)	Positive and significant	Alifiah et al. (2013), Pranowo et al. (2010), Platt & Platt (2008), Rafatnia et al. (2020)	H_1 Accepted

4.0 CONCLUSION

This study has been conducted based on the main purpose, which is examining the factors and significant relationship between financial distress among the PN17 listed companies in Bursa Malaysia. There are many previous studies conducted in their own industries and countries. However, this study has been undertaken to provide a deeper understanding on determining financial distress that could lead to bankruptcy if nothing or less alternative is done to solve those financial issues by the PN17 listed companies. The companies heading towards bankruptcy should conduct restructuring plans. This may help to achieve the good performance of the companies and raise their profits, as well as reducing the debt of such companies. Furthermore, based on the results obtained by this study, the Random Effect Model has been selected as the final result. Referring to the outcome obtained, the objectives of this study have been achieved, thus, the research questions and research objectives have been properly answered based on the result attained.

There are a few recommendations to offer as there are a number of gaps in knowledge, based on these findings, which would benefit future research. Since this study has only been conducted in Malaysia, future researchers that have better resources and are able to obtain more data are highly advisable to conduct their studies in other countries with more independent variables in order to improve the effectiveness of total-debt determination. Hence, it is more favourable if analysis

tests are done individually within a greater period of analysis to indicate better suggested improvements on sampled companies.

On top of that, the researchers can also obtain different perspectives from different countries to find out more about financial distress faced by companies with different situations occurring in those countries. Besides, the future researchers can add more periods of years to get better results. This is one of the ways to obtain better outcomes and make the analyses of the companies in the different countries more interesting. Moreover, the data findings could also be contrasting with this study as the number of years are increased.

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