

The Effect of Liquidity, Leverage and Profitability on Financial Distress

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Article Info	Abstract
Received : 2020-06-23 Accepted : 2020-07-21 Published : 2020-07-31	This study aims to analyze the effect of liquidity, leverage, and profitability on financial distress in manufacturing companies in Riau province. 129 manufacturing companies experiencing financial distress in Riau province were selected as samples using purposive sampling method. The data were analyzed using multiple linear regression. The results show that the current ratio affects financial distress. The debt to equity ratio affects financial distress. Return on assets affects financial distress.
Key words: liquidity; leverage; profitability; financial distress	

INTRODUCTION

Financial distress is the inability of a company to meet its short-term obligations. Darsono & Ashari (2005) states that financial distress is the inability of a company to pay its financial obligations when due which can lead to the bankruptcy of the company. If this cannot be solved, then it can cause a major impact on the company. For example, when a company is unable to continue to generate profits continuously for several periods, the company will find it difficult even to pay the obligations. Therefore, the company may go bankrupt. Financial distress, failure, and bankruptcy of a company can be measured and seen from the company's financial statements. A company's financial statements are very important for management and external parties, especially for investors to see the company's financial performance.

Many studies have examined the financial distress, but the results are still inconsistent. One of the factors that influence financial distress is liquidity. The higher the company's ability to meet its short-term obligations, the lower the possibility of financial distress. Masdupi *et al* (2018) found that liquidity has a significant effect on predicting the financial distress of a company. This research is supported by Triwahyuningtyas & Muharam (2012) which state that liquidity is the most significant financial ratio in predicting the occurrence of financial distress in a company. On the other hand, Karugu *et al* (2018), Fatmawati & Rihardjo (2017) and Simanjuntak *et al* (2017) found that the liquidity ratio does not affect financial distress.

Another financial ratio is the leverage ratio. The greater the company's activities financed by creditors, the greater the possibility of financial distress. Research conducted by Fatmawati & Rihardjo (2017) shows that leverage has a positive effect on financial distress. This is supported by Chrissentia & Syarief (2018) and Simanjuntak *et al* (2017) which found that leverage has a positive influence on financial distress. On the contrary, Cinantya & Merkusiwati (2015) and Putri & Merkusiwati (2014) found that leverage does not affect financial distress.

Profitability affects financial distress. The higher the profits generated by the company, the less the possibility of financial distress in the company. Research conducted by Masdupi *et al* (2018) shows that profitability has a negative effect on financial distress. This research is supported by Yadiati (2017) and Khotimah & Yuliana (2020) who state that profitability has a negative effect on financial distress. In contrast, Simanjuntak *et al* (2017) and Rohmadini *et al* (2018) found that profitability does not significantly affect financial distress. This study aims to

analyze the effect of liquidity, leverage, and profitability on financial distress. The originality this study, sized firm as independent variable.

LITERATURE REVIEW

Signalling Theory

Signal theory was coined by Spence (1973) in his research entitled Job Market Signaling. This theory reveals that companies give signals to users of financial statements, both in the form of good news as positive signals and bad news as negative signals. This signal is in the form of information about what management has done to realize the owner's wishes. This is important for investors and business people because the information essentially presents information about past, present, and future circumstances for the sustainability of the company and how it affects the company (Brigham & Houston, 2001).

Theoretical Framework and Hypothesis Development

The Effect of Liquidity on Financial Distress

The liquidity ratio in this study is the current ratio (CR). A low current ratio indicates a problem in liquidity, while a high current ratio indicates that the company has sufficient current assets to carry out business activities normally (Hornsgren & Harrison, 2007). Signaling Theory states that through its financial statements, a company can deliver positive and negative news to its users. The higher the CR, the better the company's ability to pay its short-term obligations. In other words, the company will not experience financial difficulties and give good news to investors or users of financial statements.

Masdupi *et al* (2018) found that the current ratio significantly affects the prediction of financial distress in a company. This proves that the greater the company's ability to meet its short-term obligations, the less the possibility of financial distress. This research was supported by Triwahyuningtyas & Muharram (2012). Thus, a hypothesis was formulated as follows:

H1: Liquidity affects financial distress

The Effect of Leverage on Financial Distress

Leverage is measured using the total debt to equity ratio (DER). This ratio illustrates the ratio of debt and equity in corporate funding and shows the ability of the company's own capital to meet all obligations (Sawir, 2005). In other words, it shows how much the company's debt towards the company's equity. As in the signaling theory, financial statements can provide positive and negative information to its users. The higher the DER percentage, the greater the financial risk for creditors and shareholders (Sawir, 2005).

In their research, Fatmawati & Rihardjo (2017) found that leverage has a positive effect on financial distress. This means that the greater the company's funding from debt, the greater the possibility of financial distress. It is because the greater the company's obligation to repay the debt. Likewise, Chrissentia & Syarief (2018), Fatmawati & Riharjdo (2017), and Simanjuntak *et al* (2017) also found that leverage has a positive and significant effect on financial distress. Based on the arguments above, a hypothesis was formulated as follows:

H2: Leverage affects financial distress

The Effect of Profitability on Financial Distress

In this study, profitability is proxied by Return on Assets (ROA). In ROA, effectiveness in the use of company assets in generating profits is measured from earnings. The higher the profit generated, the higher the ROA, and also the more effective the use of assets to generate profits (Hanifah & Purwanto, 2013). This shows that the higher the ROA ratio, the better the productivity of assets in generating net profits. Therefore, the company can pay off the debt.

This is in accordance with the signaling theory that this will give good news to users of the company's financial statements.

Research conducted by Masdupi *et al* (2018) shows that profitability affects financial distress. This means that the higher the profits generated by the company the less the possibility of financial distress in the company. Yadiati (2017) and Khotimah & Yuliana (2020) also state that profitability has a negative effect on financial distress. Based on the above illustration, a hypothesis was formulated as follows:

H3: Profitability affects financial distress

METHODS

The research period is from April to November 2020. The samples of this research were 129 manufacturing companies experiencing financial distress in Riau Province. In this study, we used secondary data collected using literature study. The data consists of primary and secondary documents. The data were analyzed using multiple linear regression.

Operational Definition of Variables and The Measurements

Financial Distress

According to Black's Law Dictionary, financial distress is the inability of companies to pay both short and long term debts in general (Mardiasmo, 2015). The level of financial distress can be measured using the Z-Score model. The higher the Z-Score, the better the company's financial condition. The Z-Score model formula is as follows:

$$Z = 3,3 \frac{\text{EBIT}}{\text{Total assets}} + 1,2 \frac{\text{Net working capital}}{\text{Total assets}} + 1,0 \frac{\text{Sales}}{\text{Total assets}} + 0,6 \frac{\text{Market value of equity}}{\text{Book value of debt}} + 1,4 \frac{\text{Accumulated retained earnings}}{\text{Total assets}}$$

If the Z-Score ≥ 2.99 , it is in the safe zone; if the Z-score 1.81 - 2.99, it is in the grey area; and if the Z-Score < 1.81 , it is the financial distress zone.

Liquidity

Liquidity ratio is the ability of a company to meet its short-term obligations (Subramanyam, 2017). In this study, liquidity is measured by the current ratio. Current ratio is used to measure the ability to pay current liabilities with current assets (Hornigren & Harrison, 2007). Current ratio is calculated by the following formula:

$$\text{Current ratio (CR)} = \frac{\text{Current assets}}{\text{current liabilities}}$$

Leverage

Leverage ratio is the company's ability to meet long-term financial obligations (Subramanyam, 2017). This ratio can be measured by debt to total equity ratio (DER). This ratio shows the proportion between liabilities held and all equity held (Sawir, 2005). DER is calculated by:

$$\text{Total debt to equity ratio (DER)} = \frac{\text{Total debt}}{\text{total equity}}$$

Profitability

Profitability is a ratio that provides an overview of the effectiveness of company management in obtaining profits (Sawir, 2005). In this study, profitability is measured by (ROA). This ratio shows the percentage of each sale generated as net profit (Hornigren and Harrison, 2007). ROA is calculated by the formula:

$$ROA = \frac{\text{Net income}}{\text{Total asset}}$$

RESULTS AND DISCUSSIONS

Descriptive Testing

Table 4.1 Results of Descriptive Statistics

	Liquidity	Leverage	Profitability	Financial Distress
Minimum	0,034	-225,045	-0,547	-5,159
Maximum	5,623	11,098	0,348	1,644
Mean	1,111	2,505	1,048	0,618
Std. Deviation	0,961	2,180	0,123	0,421

Source: processed data, 2020

Table 4.1 shows that Financial Distress has a minimum value of -5.159 and a maximum value of 1.644. This means that all manufacturing companies in this study experience financial distress. The smaller the value of financial distress, the higher the possibility for companies to go bankrupt. The mean value of financial distress is 0.618. The standard deviation of 0.421 indicates variations in financial distress in manufacturing companies. It can be seen that the mean value is greater than the standard deviation. This means that the data distribution shows normal results. The liquidity has a minimum value of 0.034 and a maximum value of 5.623. The greater the value of liquidity, the smaller the company will experience financial distress. The mean of liquidity is 1.111 and the standard deviation of liquidity shows a value of 0.961. It can be seen that the mean value is greater than the standard deviation which means that the data distribution is normal. The leverage variable shows a minimum value of -225.045 and a maximum value of 11.098. The higher the value of liquidity, the smaller the possibility of financial distress in the company. The mean value of leverage is 2.505 and the standard deviation is 2.180. It shows that the mean value is greater than the standard deviation which means that the data distribution is normal. The profitability variable has a minimum value of -0.547 and a maximum value of 0.348. This means that the higher the value of the company's profitability ratio, the smaller the possibility of financial distress in the company. The mean value of the profitability is 1.04837 and the standard deviation is 0.123783 which shows variations in the company's profitability ratio. It can be seen that the mean value is greater than the standard deviation, meaning that the data is well distributed.

Hypotheses Testing

Table 4.2. Hypotheses Testing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	0,425	0,266		1,975	0,118
	Liquidity	0,206	0,174	0,140	1,861	0,042
	Leverage	0,005	0,005	0,106	2,902	0,037
	Profitability	6,717	1,346	0,585	4,990	0,000

Table 4.2 shows that liquidity, leverage, and profitability affect financial distress. Partially, the independent variable affects the dependent variable if the significance value is <0.05 . The results show that all the significance values of each variable are smaller than 0.05, i.e., the liquidity is 0.042, the leverage is 0.037 and the profitability is 0.000. Thus, it can be concluded that liquidity, leverage, and profitability affect financial distress.

The Effect of Liquidity on Financial Distress

Liquidity affects financial distress. This happens because generally, the manufacturing company has a small number of current assets to pay the company's current debt before the due. At the same time, the company has a large current debt so that the company's current asset funds are insufficient to pay off the company's debts, and the company is cannot guarantee to pay the current debt when due. Based on the signaling theory, this situation shows a negative signal to users of the company's financial statements because it illustrates that the company's finance is in a bad condition. Thus, the smaller the liquidity ratio of a company, the greater the possibility of the company experiencing financial distress. This result supports the research conducted by Cinantya & Merkusiwati (2015) and by Amanda & Tasman (2019) which found that liquidity significantly affects financial distress in a company. On the other hand, Fatmawati & Rihardjo (2017), Simanjuntak *et al* (2017), Putri & Merkusiwati (2014) found that liquidity does not have a significant influence on the prediction of financial distress.

The Effect of Leverage on Financial Distress

greater the debt held by the company, the higher the possibility to experience financial distress. In this study, the leverage ratio is proxied by the debt to equity ratio that illustrates the number of liabilities to the company's equity. This influence is because the manufacturing companies that have quite large obligations while the value of equity owned is smaller. As a result, the company cannot cover the company's obligations when due. Based on the signaling theory, this situation shows a negative signal to users of the company's financial statements because it illustrates that the company's finance is in bad condition. After all, the company cannot pay obligations when due. This result supports the research conducted by Chrissentia & Syarief (2018) and by Fatmawati & Rihardjo (2017) which found that leverage affects financial distress. In contrast, Putri & Merkusiwati (2014), Cinantya & Merkusiwati (2015), and Savitri *et al* (2019) found that leverage does not affect financial distress in a company.

The Effect of Profitability on Financial Distress

Profitability affects financial distress. This because generally manufacturing companies have a negative net profit and an asset value that is greater than its profit. As a result, the company has a low profitability value. Based on the signaling theory, this will give a negative signal to users of the company's financial statements because it shows that the use of assets is ineffective and inefficient. So, this will increase the costs incurred by the company which will have an impact on the smaller profit gained. So, with the decrease in profitability, the potential for financial distress will be even greater. This supports research conducted by Fatmawati & Rihardjo (2017) and Khotimah & Yuliana (2020) which found that profitability affects financial distress. On the contrary, Simanjuntak *et al* (2017) and Rohmadini *et al* (2018) found that profitability does not affect financial distress in a company.

CONCLUSION, IMPLICATION, LIMITATION AND SUGGESTION

Conclusion

Based on the results, the conclusions are:

1. Liquidity proxied by the current ratio (CR) affects financial distress because the current assets owned by manufacturing companies are smaller than the short-term debt, so the value of the current ratio is small. Therefore, the smaller the value of the company's liquidity ratio, the greater the possibility of the company experiencing financial distress.

2. Leverage proxied by debt to total equity ratio (DER) affects financial distress. This effect is because manufacturing companies have quite large obligations while the value of equity owned by the company is small. So, the company cannot cover its obligations when due. As a result, the company experiences financial distress.
3. Profitability proxied by return on assets (ROA) affects financial distress. This is because the total net profit of manufacturing companies is negative and smaller than the total assets. This shows that companies cannot generate maximum profits and are inefficient and ineffective in using their assets. As a result, companies experience financial distress.

Implication

For management, this research can be used to detect and take preventive actions before the company experiences financial distress or even bankruptcy. Besides, this study can be a consideration for investors in making decisions for investment.

Limitation

The limitations of this study are:

1. This research is limited to manufacturing companies so the results of the study cannot be generalized to other company sectors.
2. The variables used in this research are only financial ratio variables while there are still other variables that may affect financial distress.

Suggestion

Based on the research results above, suggestions can be given as follows:

1. For further research, it is recommended to use the sector other than manufacturing to gain more diverse results.
2. Future studies need to consider a longer observation period. It is intended that the conclusions with a broader scope.

Reference

- Amanda, Y., & Tasman, A. (2019). Pengaruh Likuiditas, Leverage, Sales Growth dan Ukuran Perusahaan Terhadap Financial Distress Pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2015-2017. *Jurnal Ecogen*, 2(3), 453-462.
- Brigham, E.F., & Joel, F.H. (2001). *Manajemen Keuangan*. Edisi Kedelapan Buku 2. Jakarta: Erlangga.
- Chrissentia, T., & Syarief, J. (2018). Analisis Pengaruh Rasio Profitabilitas, Leverage, Likuiditas, Firm Age, dan Kepemilikan Konstitusional terhadap Financial Distress (Pada Perusahaan Jasa Non Keuangan yang terdaftar di Bursa Efek Indonesia Tahun 2014-2016). *Simak*, 16(1), 45-61. <https://doi.org/10.35129/simak.v16i01.11>
- Cinantya, I.G., & Merkusiwati, N.K.L.A. (2015). Pengaruh Corporate Governance, Financial Indicators, dan Ukuran Perusahaan Pada Financial Distress. *E-Jurnal Akuntansi Universitas Udayana*, 10 (3), 897-915.
- Darsono, & Ashari. (2005). *Pedoman Praktis Memahami Laporan Keuangan*. Salemba Empat. Jakarta
- Fatmawati, & Rihardjo. (2017). Pengaruh Likuiditas, Leverage, Likuiditas, Aktivitas dan Profitabilitas Terhadap Financial Distress. *Jurnal Ilmu dan Riset Akuntansi*, 6(10), 156-168.
- Hanifah, O.E., & Purwanto, A. (2013). Pengaruh Struktur Corporate Governance dan Financial Indicators Terhadap Kondisi Financial Distress. *Diponegoro Journal of Accounting*, 2(2), 1-15.
- Horngren, C.T., & Harrison, W. T. (2007). *Akuntansi Buku II*. Edisi 7. Jakarta: Erlangga

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- Karugu, C.W., Kiriri, P., & Achoki, G. (2018). Liquidity Ratios As Predictors Of Financial Distress In Kenya Commercial Banks. *Researchjournali's Journal of Finance*, 6(2), 1-11.
- Khotimah, K., & Yuliana, I. (2020). Pengaruh Profitabilitas Terhadap Prediksi Kebangkrutan Dengan Struktur Modal Sebagai Variabel Moderating. *Forum Ekonomi*, 22(1), 37-43.
- Mardiasmo. (2015). *Manajemen Keuangan Lanjutan*. Jakarta: Ikatan Akuntan Indonesia.
- 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.
<https://doi.org/10.2991/piceeba-18.2018.51>
- Putri, N.W.K.A., & Merkusiwati, N.K.L.A. (2014). Pengaruh Mekanisme Corporate Governance, likuiditas, Leverage, dan Ukuran Perusahaan pada Financial Distress. *e-Jurnal Akuntansi Universitas Udayana*, 7(1), 93-106.
- Rohmadini, A., Saifi, M., & Darmawan, A. (2018). Pengaruh Profitabilitas, Likuiditas dan Leverage Terhadap Financial Distress (Studi Pada Perusahaan Food & Beverage Yang Terdaftar Di Bursa Efek Indonesia Periode 2013-2016). *Jurnal Administrasi Bisnis*, 61(2), 11-19.
- Savitri, E., Andreas, & Surya, R.A.S. (2019). Influencing Factors:The Timeliness of Financial Reporting Submissions. *Business and Management Studies*, 5(1), 43-51.
<https://doi.org/10.11114/bms.v5i1.4144>
- Sawir, A. (2005). *Analisis Kinerja Keuangan dan Perencanaan Keuangan*. Jakarta: Gramedia Pustaka Utama
- Simanjuntak, C., Titik, F.K. & Aminah, W. (2017). Pengaruh Rasio Keuangan Terhadap Financial Distress. *e-Proceeding of Management*, 4(2), 1580-1587.
- Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics*, 87(3), 355-347.
- Subramanyam, K.R. (2017). *Analisis Laporan Keuangan*. Edisi Kesebelas. Jakarta: Salemba Empat.
- Triwahyuningtias, M., & Muharram, H. (2012). Analisis Pengaruh Struktur Kepemilikan, Ukuran Dewan, Komisaris Independen, Likuiditas dan Leverage Terhadap Terjadinya Kondisi Financial Distress: Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2008-2010). *Diponegoro Jurnal Of Management*, 1(1), 1-14.
- Yadiati, W. (2017). The Influence Of Profitability On Financial Distress: A Reseach On Agricultural Companies Listed In Indonesia stock Exchange. *International Journal Of Scientific & Technology Research*, 6(11), 233-237.