

# THE EFFECT OF FINANCIAL RATIOS ON FINANCIAL DISTRESS (EMPIRICAL STUDY OF HOTEL AND TOURISM SECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE 2017-2021 PERIOD)

Febiyanti Kusuma Dewi<sup>1</sup>, Bambang Sudiyatno<sup>2</sup>

<sup>1,2</sup> Faculty of Economics and Business Unisbank Stikubank Semarang

## ARTICLE INFO

### Keywords:

*financial distress,  
liquidity,  
profitability,  
leverage,  
activity,  
sales growth*

### E-mail:

[febiyantikusumadewi@mhs.unisbank.ac.id](mailto:febiyantikusumadewi@mhs.unisbank.ac.id)  
[bsud@edu.unisbank.ac.id](mailto:bsud@edu.unisbank.ac.id)

## ABSTRACT

This study aims to examine the effect of financial ratios, including liquidity ratios, profitability, leverage, activity, and sales growth on financial distress in hotel and tourism sector companies listed on the Indonesia Stock Exchange for the 2017-2021 period. The data used is secondary data in the form of financial statements and annual reports for 2017-2021. Technical data analysis uses multiple linear regression analysis. Sampling was carried out by purposive sampling with a total sample of 21 companies from a total population of 33 companies, then the number of observations was 105. The research findings show that liquidity and leverage variables have a significant positive effect on financial distress, profitability variables have a significant negative effect on financial distress, activity variables and sales growth do not have a positive effect on financial distress.

Copyright © 2023 Economic Journal. All rights reserved.

is Licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)

## 1. INTRODUCTION

In early 2020 the whole world was hit by a covid 19 pandemic, especially Indonesia. So that causing significant changes to the entire order of life in Indonesia, especially in the economic sector. Human activities began to be restricted so that it had a bad impact on the community's economy. Some people lost their jobs, entrepreneurs suffered losses, and some companies went bankrupt. The results of a Bank Indonesia (BI) survey noted that the most significant decline occurred in business activities in the manufacturing industry sector, trade sector, hotels and restaurants, and the service sector due to a decrease in demand (Rinofah et al., 2022). Based on data from the Ministry of Tourism and Forestry (2019), the contribution of national GDP (Gross Domestic Product) in 2020 has decreased from 5.5% to 4%. Vice chairman of the Indonesian Hotel and Restaurant Association (PHRI) Maulana Yusran, stated that the tourism, hotel and restaurant industries suffered losses reaching more than RP 100 trillion or US\$ 7.1 billion until early November (Kontan.co.id, 2020). The phenomenon of declining sales can affect the financial condition of the company. The decline was marked by a decrease in the occupancy rate of star-rated hotel rooms and foreign tourist visits. Based on data from the Central Statistics Agency, the hotel occupancy rate has decreased significantly in 2020. The hotel room occupancy rate in 2020 saw a very sharp decline of 21%. The decline in the hospitality industry is accompanied by a simultaneous decline in the tourism industry. Based on data from the Ministry of Tourism and Creative Economy, the level of foreign tourist visits in 2020 experienced a significant decrease of 513,482 visits. Then in 2021 it still experienced a fairly high decline of 141,211 visits. This very significant decline has made several tourism and hotel industries experience a decline in revenue and even lose money. So that it can interfere with the company's operations. This decrease in revenue can result in the company not being able to finance short-term and long-term liabilities. This condition is called financial distress.

Platt and Platt (2002) define financial distress as the stage of decline in financial condition that occurs before bankruptcy or liquidation. Company revenues and cash flows declined, causing distressed companies to fail to meet their financial obligations (Thim et al., 2011). According to Platt & Platt (2002) there are several indicators of companies before experiencing bankruptcy conditions, including cash flow difficulties, negative company net operating profit for several years, massive layoffs. This happens because the company's revenue from the results of operating activities is insufficient to cover the operating

expenses arising from the company's operating activities so that the company has difficulty funding to run its business again.

Table 1 Development of Hotel and Tourism Industry Net Profit

CODE	NET PROFIT				
	2017	2018	2019	2020	2021
KPIG	1,315,234,000	665,479,000	274,135,000	258,812,539,573	144,520,842,245
INPP	147,896,118,540	122,894,269,254	2,081,142,336,348	-483,534,590,924	-28,445,978,434
JSPT	1,792,000	466,896,329	143,508,701	-235,772,754	-333,366,231
SHID	1,458,000	1,717,000	-12,677,000	-51,932,285,632	-41,782,293,320
PJAA	224,155	222,347	233,034	-393,866	-276,381

Source: Company Financial Statements (Data processed)

Based on the table above, it can be seen that the development of net profit or net loss obtained by several companies during the pandemic experienced losses marked by negative occurrence in net profit. The problem of the condition of financial losses faced by hotel and tourism sector companies in 2017-2021 is one of the factors causing the occurrence of financial distress conditions which can lead to bankruptcy which means the company's failure to carry out the company's operations to generate its profits. According to Altman (1968), the occurrence of financial distress can be predicted by financial ratios. In general, the ratios used in measuring financial distress are profitability, liquidity, solvency, activity, and growth ratios (Altman, 1968). So that researchers use the ratio as an independent variable.

Based on several previous studies, there are still differences in empirical findings in the results of the study on the effect of the ratio of finance to financial distress. According to Yasmin and Muharam (2021), Sutra and Mais (2019), Thim et al., (2011), Hadi Abdul (2022), and Kartika et al., (2020) that the proxied liquidity ratio with the current ratio negatively affects the financial distress. However, this is different from the results of research conducted by Septyanto et al., (2022), Rinofah et al., (2022), Kournikova and Nurasik (2021), and Nurdiawansyah et al., (2021) that liquidity has a positive effect on financial distress. According to Yasmin and Muharam (2021), Sutra and Mais (2019), Rinofah et al., (2022), Thim et al., (2011), Hadi (2022), and Kartika et al., (2020) stated that profitability proxied by ROA negatively affects financial distress. However, in contrast to the statements of Septyanto et al., (2022), Kournikova and Nurasik (2021), and Nurdiawansyah et al., (2021) profitability proxied by ROA has a positive effect on financial distress. According to Nurdiawansyah et al., (2021) and Kartika et al., (2020) show that leverage has a positive effect on financial distress. In contrast to research conducted by Septyanto et al., (2022) and Rinofah et al., (2022) that leverage negatively affects financial distress. According to Kournikova and Nurasik, (2021) and Kartika et al., (2020) states that the ratio of activity negatively affects financial distress. However, this is inversely proportional to the research of Rinofah et al., (2022) showing that the activity ratio has a positive effect on financial distress. According to research conducted by Thim et al., (2011) shows that sales growth has no effect on financial distress. However, this is inversely proportional to the research of Rinofah et al., (2022) showing a positive influence of sales growth on financial distress.

## 2. METHOD

The diversity of research results regarding the relationship between the ratio of finance to financial distress is a stimulus to conduct further research. This study will examine the effect of financial ratios, namely liquidity, profitability, leverage, activity, and sales growth on financial distress in hotel and tourism sector companies listed on the Indonesia Stock Exchange. The population and sample of this study are hotel and tourism sector companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Sample selection is carried out based on the purposive sampling method. To obtain a suitable sample are determined the following criteria: companies belonging to the hotel and tourism industry listed on the IDX during the period 2017-2021, and companies that actively publish financial statements successively during the research period. To calculate financial distress in this study using the Altman z-score method. The analysis was carried out using a multiple regression equation model. The regression method aims to test the relationship between independent variables to dependent variables. The similarities of the regression of this study are:

$$Z'' = \alpha + \beta_1 CR + \beta_2 ROA + \beta_3 DAR + \beta_4 TATO + \beta_5 SG + e$$

Where:

Z'' : Financial Distress (Z-score)

*The Effect Of Financial Ratios On Financial Distress (Empirical Study Of Hotel And Tourism Sector Companies Listed On The Indonesia Stock Exchange For The 2017-2021 Period). Febiyanti Kusuma Dewi, et.al*

$\alpha$	: Konstanta
$\beta$	: Koefisien
Current ratio (CR)	: Likuiditas
Return on asset (ROA)	: Profitabilitas
Debt to asset ratio (DAR)	: Leverage
Total asset turnover (TATO)	: Aktivitas
Sales growth (SG)	: Sales growth
e	: Error

### 3. RESULTS AND DISCUSSION

#### Normality Test

Normality tests are used to test whether in regression models, disruptive variables or normal distributed residuals or not (Ghozali, 2016). A good regression model is to have a normal or close to normal distribution. To find out whether the data of this study is normal or not, data testing was carried out using skewness and kurtosis. Based on the test results, the following results were obtained:

Table 2 Skewness and Kurtosis Test Results

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Unstandardized Residual	-0,260	0,236	0,105	0,467

In the results of the analysis in the table above, the results of the skewness value of -0.260 and the standard error of 0.236 and the kurtosis value of 0.105 and the standard error of 0.467 were obtained. To find out the value of the skewness ratio and the kurtosis ratio, use the following formula:

$$\begin{aligned} \text{Skewness ratio formula} &= \text{statistical skewness/std.error skewnes} \\ &= -0,260/0,236 \\ &= -1,10 \end{aligned}$$

$$\begin{aligned} \text{Kurtosis ratio formula} &= \text{kurtosis/std statistics. kurtosis error} \\ &= 0,105/0,467 \\ &= 0,22 \end{aligned}$$

Based on the formula above, the skewness ratio value of -1.10 and the kurtosis ratio of 0.22 were obtained, because the skewness ratio and kurtosis ratio were between the values of -1.96 to 1.96, it can be concluded that in the study of the normal distributed regression model.

#### Multiple Linear Regression Analysis

Multiple linear regression analysis is used to determine the influence of independent variables on dependent variables. The following is a table of multiple linear regression analysis:

Table 3 Results of Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Itself.
	B	Std. Error	Beta		
(Constant)	3,514	0,748		4,699	0,000
CR	0,073	0,016	0,300	4,670	0,000
ROA	-0,030	0,003	-0,594	-9,268	0,000
BUT	0,501	0,096	0,335	5,208	0,000
THIS	0,303	0,501	0,039	0,605	0,546
SG	0,093	0,080	0,075	1,158	0,250

Based on the results of the calculation of linear regression analysis in the table above, the form of the regression equation is obtained as follows:

$$\text{Financial Distress} = 3,514 + 0,073 (\text{CR}) - 0,030 (\text{ROA}) + 0,501 (\text{DAR}) + 0,303 (\text{TATO}) + 0,093 (\text{SG}) + 0,748$$

- 1) If the liquidity ratio projected by the current ratio, there is an increase of one unit while the profitability ratio (ROA), leverage (DAR), activity (TATO), and sales growth do not contribute or have

- avalue of zero (0), then the financial distress projected to the Altman Z Score is positive. Infact, whenever there is an increase in the company's liquidity and other free variables are assumed to be constant, thepossibility of the company experiencing financial difficulties is predicted to increase.
- 2) If the projected profitability ratio by return on assets increases by one unit while the liquidity ratio (CR), leverage (DAR), activity (TATO), and sales growth does not contribute or has avalue of zero (0), then the financial distress projected to the Altman Z Score is negative. Infact, whenever there is an increase in the company's profitability and other free variables are assumed to be constant, then thepossibility of the company experiencing financial difficulties is predicted to decrease.
  - 3) If the leverage ratio projected by the debt to asset ratio increases by one unit while the liquidity ratio (CR), profitability (ROA), activity (TATO), and sales growth do not contribute or have avalue of zero (0), then the financial distress projected to the Altman Z Score is positive. Artinya, whenever there is an increase in the amount of debt owned by a company and other free variables are assumed to be constant, then thepossibility of the company experiencing financial difficulties is predicted to increase.
  - 4) If the projected activity ratio by total asset turnover increases by one unit while the liquidity ratio (CR), profitability (ROA), leverage (DAR), and sales growth does not contribute or has a value of zero (0), then the financial distress projected to the Altman Z Score is positive. Infact, whenever there is an increase in company activity and other free variables are assumed to be constant, thepossibility of the company experiencing financial difficulties is predicted to increase.
  - 5) If the sales growth ratio increases by one unit while the liquidity ratio (CR), profitability (ROA), leverage (DAR), and activity (TATO) does not contribute or has avalue of zero (0), then the financial distress projected to the Altman Z Score is positive. Infact, everytime a sales growth increase is experienced by the company and other free variables are assumed to be constant, thepossibility of the company experiencing financial difficulties is predicted to increase.

## DISCUSSION

### a. The Effect of Liquidity on Financial Distress

The liquidity proxied by the current ratio has a significance value of  $0.0000 \leq 0.05$  with a t value of 4.670 (positive). Thus, liquidity with the current ratio indicator has a significant positive effect on financial distress. Companies that are able to increase their liquidity value, then the company will be more liquid and well in the sense that the company will increasingly stay away from the potential for financial distress. If the company has low liquidity, the company is feared to be unable to pay its short-term debt, because this may indicate that the company is not in a liquid condition because the company's current assets cannot cover its current debt so that it can trigger financial distress. However, the higher the liquidity value, the greater the current assets that are not needed, so that they do not provide income and a large amount of funds will be collected in the form of uncollectible trade receivables. Such uncollectible receivables or unsold inventory cannot be used by the company to repay debts. So that the liquidity ratio that is too high indicates that the company's working capital is unproductive resulting in the emergence of costs that will reduce the company's profit and will have a positive effect on financial distress. This is not in line with the signal theory proposed by Spence (1973) stating that the lower the company's liquidity, the more likely the company is to experience financial distress so that the signal given is bad, if the higher the company's liquidity, the less likely the company is to experience financial distress So that the signals given are good, but in practice an increase in liquidity can increase financial distress if the company cannot manage its current assets more efficiently.

### b. The Effect of Profitability on Financial Distress

The profitability proxied by the return on assets has a significance value of  $0.0000 \leq 0.05$  with a t value of -9.268 (negative). Thus, profitability with the return on asset indicator negatively affects financial distress. So that the higher the profitability rate measured by the return on assets, the higher the company avoids financial distress. If the company can make a profit, it shows that a manager is professional in carrying out his strategy and can benefit both parties, namely the investor will increase his profit sharing and also for the manager the bonus received will be greater. The higher the profit obtained, the greater the company's ability to cover its operational costs, so the smaller the company also experiences the possibility of financial distress. This is in line with the agency theory proposed by Jensen and Mackling (1976) stating that if principals and agents can work well together, then the goal of maximizing profits will be achieved. The high return on assets reflects the company's ability to manage its assets to obtain maximum profit, so that the possibility of financial distress decreases.

### c. The Effect of Leverage on Financial Distress

The leverage proxied by the debt to asset ratio has a significance value of  $0.0000 \leq 0.05$  with a t value of 5.208 (positive). Thus, leverage with the debt to asset ratio indicator negatively affects financial distress. Thus, it can be said that the higher the debt to asset ratio of a company, the higher the possibility of the company experiencing financial distress. The high use of third-party funds can lead to the emergence of liabilities with large amounts that the company will have to pay in the future. If this situation is not immediately resolved properly, then the possibility of the company experiencing financial distress will be even greater. So that investors will not invest in the company. This result is supported by the trade off theory proposed by Modigliani and Miller (1963) stating that the higher the leverage ratio, the less likely the company needs to increase debt because it can reduce the value of the company. If you continue to increase debt, then the company is tantamount to increasing financial distress.

### d. The Effect of Activity on Financial Distress

The activity proxied by the total asset turn over has a significance value of  $0.546 \geq 0.05$  with a t value of 0.605 (positive). Thus, activities measured using total asset turnover (TATO) show results that have no effect on financial distress. This means that the high low level of asset turnover is not a benchmark for a company to be said to be experiencing financial difficulties or not. The activity ratio will be better if there is a decent balance between sales and various elements of assets, for example inventories and company assets (Kournikova & Nurasik, 2021). If the activity ratio is unbalanced, it will experience financial distress. It is suspected that in this case the turnover of assets in the company is indeed high, the more effective the sales generated by the company's total assets, but the costs incurred by the company are not well calculated, so the costs incurred also increase. If a company is able to control its assets properly, the possibility of the company experiencing financial distress will become smaller. In this case, when the company cannot streamline the cost of each sale, it may be that it will experience financial difficulties. Thus, this research is not supported by the agency theory proposed by Jensen and Mackling (1976) stating that the company's management activities are carried out by agents. If the agent or manager cannot maximize the use of company assets, then the company's sales cannot be maximized, so it will bring a company closer to financial distress. The projected activity ratio by total asset turnover which was originally believed to be a parameter in researching its effect on financial distress turned out to be inappropriate because the size of the company's assets and the sale of the company did not affect the occurrence or not of financial distress.

### e. The Effect of Sales Growth on Financial Distress

Sales growth has a significance value of  $0.250 \geq 0.05$  with a t value of 1.158 (positive). In this study, sales growth did not affect financial distress, due to the ups and downs in the value of sales growth, not necessarily followed by the company's profit. The amount of company expenses is the cause of insufficient profit to support the company's financial condition (Muzharoatiningsih & Ulil, 2022). So that the research does not support the theory of the nyal proposed by Spence (1973) explaining the management's actions to provide information for investors and creditors about the conditions that the company is currently experiencing. The information provided regarding sales, if the sales level increases, the company will avoid financial distress, while sales that fall indicate financial distress. The theoretical implication of this research is that companies must not only focus on adding sales growth value, because the value of sales growth does not affect financial distress. The practical implication is that companies must be able to improve expense management properly, so that high levels of sales are accompanied by an increase in profits.

## 4. CONCLUSION

Liquidity has a significant positive effect on financial distress in hotel and tourism sector companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Thus, it can be said that the higher the level of liquidity, the higher the possibility of the company experiencing financial distress. Profitability has a significant negative effect on financial distress in hotel and tourism sector companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Thus, if the company has a high profit value, the adequacy of the company's funds will be maintained and avoid financial distress. Leverage has a significant positive effect on financial distress in hotel and tourism sector companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Thus, it shows that the higher the level of debt to asset ratio, the higher the possibility of the company experiencing financial distress. Activities do not have

a positive effect on financial distress in hotel and tourism sector companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Thus, activity cannot be a benchmark for the occurrence of financial distress or not. Sales growth did not have a positive effect on financial distress in hotel and tourism sector companies listed on the Indonesia Stock Exchange for the 2017-2021 period. Thus, the ups and downs of sales cannot reflect the company in a state of financial distress or not.

#### REFERENCES

- [1] Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *Journal of Finance*, XXIII(4), 289-609. [http://www.defaultrisk.com/pa\\_score\\_01.htm](http://www.defaultrisk.com/pa_score_01.htm)
- [2] Altman, E. I. (2000). Predicting financial distress of companies: revisiting the z-score and ZETA model, distress prediction models and some application. <https://pages.stern.nyu.edu/~ealtman/Zscores.pdf>
- [3] Badan Pusat Statistik. Tingkat kunjungan wisatawan mancanegara. 25 Juni 2022. [www.bps.go.id](http://www.bps.go.id)
- [4] Badan Pusat Statistik. Tingkat penghunian kamar hotel berbintang. 25 Juni 2022. [www.bps.go.id](http://www.bps.go.id)
- [5] Brigham, E. F., & Ehrhardt, M. C. (2012). *Financial management theory and practice*, edisi 14e. Cengage Learning, USA South Western.
- [6] Bursa Efek Indonesia. Laporan keuangan dan laporan tahunan (annual report) perusahaan sektor hotel dan pariwisata. 25 Juni 2022. [www.idx.co.id](http://www.idx.co.id)
- [7] Cladera, R. C., Martin, O. A., & Pascual, F. B. (2021). Financial distress in the hospitality industry during the Covid-19 disaster. *Tourism Management*, 85(104301), 1-13. <https://doi.org/10.1016/j.tourman.2021.104301>
- [8] Dwijayanti, S. P. F. (2010). Penyebab, dampak, dan prediksi dari financial distress serta solusi untuk mengatasi financial distress. *Jurnal Akuntansi Kontemporer*, 2(2), 191-205. <https://media.neliti.com/media/publications/244793>
- [9] Edison, A. (2019). *Metode Penelitian Bisnis* (2nd ed.). Bandung: Cendra.
- [10] Fitri, A. N. (2020, 19 November). PHRI: Kerugian industri pariwisata karena pandemi sudah lebih dari Rp 100 triliun. 25 Juni 2022. <https://industri.kontan.co.id/news/phri-kerugian-industri-pariwisata-karena-pandemi-sudah-lebih-rp-100-triliun>
- [11] Ghozali, I. & Ratmono, D. (2017). *Analisis Multivariat dan Ekonometrika dengan Eviews 10*. Badan Penerbit Universitas Diponegoro: Semarang.
- [12] Ghozali, I. (2016). *Aplikasi analisis multivariete dengan program IBM SPSS 23*, edisi 8, Cetakan VIII. Semarang: Badan Penerbit Universitas Diponegoro.
- [13] Hadi, A. (2022). Pengaruh rasio-rasio keuangan terhadap financial distress pada perusahaan sektor perdagangan, jasa, dan investasi. *Jurnal Ilmu Manajemen*, 10(1), 1-10. <https://doi.org/10.26740/jim.v10n1.p1-10>
- [14] Horne, James C. V & J. M. Wachowicz, JR. (2005). *Prinsip-Prinsip Manajemen keuangan*. Edisi 12 (Buku 1). Jakarta: Salemba Empat
- [15] Jensen, M. C. & Meckling, W. H. (1976). Theory of firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(1976), 305-360. <http://papers.ssrn.com/abstract=94043>
- [16] Juhaeriah, J., Abbas, D. S., & Hakim, M. Z. (2021). Pengaruh sales growth, arus kas, ukuran perusahaan, kepemilikan manajerial, kepemilikan institusional terhadap financial distress. In *Prosiding Seminar Nasional Ekonomi Dan Bisnis*, 359-369. <http://dx.doi.org/10.32528/psneb.v0i0.5188>
- [17] Kartika, A., Rozak, H. A., Nurhayati, I., & Bagana, B. D. (2020). Rasio keuangan sebagai prediksi financial distress. *Proceeding SENDI\_U*, 675-681. <https://unisbank.ac.id/ojs/index.php/sendiu/article/view/8052>
- [18] Kasmir. (2016). *Analisis Laporan Keuangan*. Jakarta: Raja Grafindo Persada.
- [19] Kemenparekraf RI. *Grafik Perkembangan Bulanan Kunjungan*. 25 Juni 2022. [www.kemenparekraf.go.id](http://www.kemenparekraf.go.id)
- [20] Kournikova, H., & Nurasik, N. (2021). The effect of financial ratios on financial distress during the covid 19 period. *Academia Open*, 5(2385), 1-12. <https://acopen.umsida.ac.id>
- [21] Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: a correction. *The American Economic Review*, 53(3). 433-443. <https://www.jstor.org/stable/1809167>
- [22] Musthafa. (2017). *Manajemen keuangan*. Yogyakarta: ANDI, Anggota IKAPI.

- [23] Muzharoatiningsih, M., & Hartono, U. (2022). Pengaruh rasio keuangan, sales growth dan ukuran perusahaan terhadap financial distress pada sektor industri barang konsumsi yang terdaftar di BEI 2017-2020. *Jurnal Ilmu Manajemen*, 10(3), 747-758. <https://journal.unesa.ac.id>
- [24] Nurdiawansyah, N., Dharmawan, Y. Y., Haninun, H., Warganegara, T. L., & Santoso, S. (2021). Determinasi financial distress pada perusahaan property dan real estate. *Jurnal Akuntansi dan Keuangan*, 12(2), 100-111. <https://jurnal.ubl.ac.id>
- [25] Platt, H. D., & Platt, M. B. (2002). Predicting corporate financial distress: Reflections on choice-based sample bias. *Journal of economics and finance*, 26(2), 184-199. <https://www.researchgate.net/publication/225408625>
- [26] Rinofah, R., Kusumawardhani, R., & Putri, V. A. M. (2022). Factors affecting potential company bankruptcy during the covid-19 pandemic. *Jurnal Keuangan dan Perbankan*, 26(1), 208-228. <https://doi.org/10.26905/jkdp.v26i1.675>
- [27] Septyanto, D., Welandasari, N. F., & Sayidah, N. (2022). An empirical test of the financial ratio effect on financial distress in Indonesia (Study in garment and textile industry). *The Asian Institute of Research Economics and Business Quarterly Reviews*, 5(2), 222-230. <https://doi.org/10.31219/osf.io/9j74q>
- [28] Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355-374. <http://links.jstor.org/sici>
- [29] Sudyatno, B., & Puspitasari, E. (2010). Tobin's q dan altman z-score sebagai indikator pengukuran kinerja perusahaan. *Kajian Akuntansi*, 2(1), 247-233. <https://unisbank.ac.id/ojs/index.php/fe4/article/view/223>
- [30] Sugiyono. (2018). *Metode penelitian kombinasi (Mixed methods)*. Bandung: CV Alfabeta.
- [31] Sumani. (2019). Prediksi financial distress: rasio keuangan dan sensitivitas makro ekonomi perusahaan sektor primer. *Ekuitas: Jurnal Ekonomi dan Keuangan*, 3(3), 285-305. <https://ejournal.stiesia.ac.id>
- [32] Sutra, F. M., & Mais, R. G. (2019). Faktor-faktor yang mempengaruhi financial distress dengan pendekatan altman z-score pada perusahaan pertambangan yang terdaftar di bursa efek Indonesia tahun 2015-2017. *Jurnal Akuntansi dan Manajemen*, 16(01), 34-72. <https://doi.org/1036406/jam.v16i01.267>
- [33] Thim, C. K., Yap, V. C., & Chai, S. N. (2011). Factor effecting financial distress: the case of Malaysian public listed firms. *Corporate Ownership & Control*, 8(4), 345-351. <https://virtusinterpress.org/FACTORS-AFFECTING-FINANCIAL.html>
- [34] Yasmin, A. R., & Muharam, H. (2021). Analisis pengaruh corporate governance, financial indicators dan faktor makro-ekonomi terhadap financial distress. *Syntax Literate; Jurnal Ilmiah Indonesia*, 6(12), 6031-6050. <http://dx.doi.org/10.36418/syntax-literate.v6i12.2650>