

The Hospital Financial ROA (ROA) and Financial Distress during Probability Covid-19 Pandemic

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Abstract. Not much research has been done on financial distress related to the COVID-19 pandemic; we tried to fill the gap with the present study. We were interested in examining the effect of profitability, cash flow from operating activities (CFO), and managerial ownership. We used the literature review method to collect data and information about financial distress. Data came from databases such as PubMed, ScienceDirect, and Garuda. Then we used PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) to obtain the desired articles for research. Our search on Google Scholar with the keywords “Financial Contamination Return on Assets (ROA)” and “Financial Distress” resulted in 35 international journal articles published from 2015 to 2022. They were reviewed in this study. The profitability variable, as proxied by ROA, has been shown to negatively affect the probability of financial distress in the hospital sector during the COVID-19 pandemic. This shows that the company’s ability to profit using its assets indicates financial distress probability. As proxied by the Operating Cash Flow Ratio (OCFR), CFO has positively affected the financial distress probability of hospitals during the Covid-19 pandemic. Thus, the company’s ability to pay off current liabilities using cash flows from its activities can indicate financial distress probability.

Keywords: Financial distress; ROA (ROA); Indonesia; hospital; covid-19; pandemic

1. Introduction

This article analyzes the factors affecting the financial difficulties of hospitals in Indonesia during the Covid-19 pandemic. The variables analyzed were profitability, ROA (ROA), and the probability of financial distress. According to [1], [2], the global effect of Covid-19 on the economy can be seen from the declining economic growth throughout 2020 due to changes in consumer behavior that delay or choosing not to buy at all. In addition, the vigilance of investors and creditors in transacting with companies tends to increase. According to [3], hospitals face great challenges due to financial pressure, including decreased income and difficulty obtaining funds from outside parties.

According to [1], [3] companies in the health sector will feel the biggest economic impact of the Covid-19 pandemic. Hospitals are one of the sectors most affected as all parts of their broad value chain is impacted by Covid-19. [4] state that hospitals must pay more attention to their

financial condition, especially if there is financial distress as a stage that precedes bankruptcy; it is appropriate for hospitals to carry out early detection of financial distress, especially during the Covid-19 pandemic, which resulted in mass bankruptcy. According to [3], if financial distress conditions were estimated earlier, the company's management could try to improve the company's financial condition. This prediction will provide the impetus for companies to improve their financial performance, develop business plans to minimize the impact of financial distress and find solutions to get out of that position. Another effort to avoid bankruptcy can also be made by understanding the factors that can trigger financial distress; there is an interest in analyzing the effectiveness of the company in obtaining income by using the profitability ratio. We proxied profitability by the percentage of Return to Total Assets (ROA) to show the company's efforts and performance in maintaining its survival through one of the economic resources in the midst of conditions that reduce business opportunities. According to [3], [5], during the pandemic, ROA contributes to assessing business returns or asset turnover, showing the company's performance amid the weakening economy.

[6], [7] state that the ratio of CFO to current liabilities positively affects financial distress. Meanwhile, [7], [8] concludes no effect between CFO on current liabilities and financial distress. Several studies concluded different results to examine the effect of managerial ownership on financial distress. [6] conclude that managerial ownership negatively affects financial distress. The same results are also shown by [7], [8]. [6], [9] conclude that managerial ownership positively affects financial distress. Meanwhile, [7], [8] state that managerial ownership does not affect financial distress. The description confirms a research gap in findings regarding the effect of profitability, CFO, and managerial ownership on financial distress—there are inconsistencies in previous studies. In addition, research on financial distress is still rarely done under the context of the Covid-19 pandemic, so we tried to fill the gap of insufficient research. Therefore, we were interested in examining how profitability, CFO, and managerial ownership affect financial distress, especially in hospitals as the sector most affected by the Covid-19 pandemic.

2. Literature Review

2.1 Financial Distress

[10] state that financial distress is the final stage of the company's decline and the initial stage of bankruptcy or liquidation. [10], [11] also express the same statement that financial distress is the stage before the company collapses due to financial trouble or crisis. In addition, according to [10], [11], financial distress happens when the cash flow of the company's operating activities does not balance the payment of current liabilities, so the company must take corrective action. From some of these definitions, it can be concluded that financial distress is the stage initiating bankruptcy due to the company's financial difficulties, where the company suffers losses and cannot pay its current obligations, so it must take action to make improvements. Financial distress means financial difficulties that may lead to bankruptcy. According to [10]–[13], financial distress is a very severe liquidity problem that cannot be resolved without changing the action process or company structure.

2.2 Profitability

According to [14]–[16], the profitability ratio can show the company's ability to earn profits in a certain period related to sales, total assets, and own capital. This ratio indicates the high or low effectiveness of the company's management through profit from sales or investment income [14]. This study uses a profitability proxy in the form of the percentage ROA (ROA). A profitability ratio detects the company's ability to profit within a specific period and regulates the accumulation of profits during the company's operating period [15]. According to [14], [16] stated that profitability defines the ability of management to earn profits. The higher the profitability, the bigger the company's profit, which also means better management of company assets.

2.3 Managerial Ownership of Financial Distress

Managerial ownership is one of the corporate governance mechanisms assumed to be able to minimize agency problems in the form of differences in objectives between company management (principals) and shareholders (agents). With a proportion of share ownership of management, the company's management will make profitable decisions for them as shareholders. As stated by [14], [16] that managers will not act as shareholders if they are not shareholders. This will raise financial performance and encourage management to make decisions more carefully because they will share the consequences as shareholders. Therefore, with the proportion of managerial ownership in a company, financial distress will be avoided because the management will maintain the company's financial health.

The Covid-19 pandemic has brought losses to all economic actors. Therefore, it is necessary to implement a mechanism of incentives to encourage company management to continue to perform the tasks consistently with the interests of shareholders. According to [1], directors who have ownership in the company will not make decisions that may affect their wealth. Thus, as stated by [3], [5], an increase in the proportion of shares owned by managers and directors will reduce the possibility of excessive manipulation so that the interests between managers and shareholders will become one. This condition will then improve financial condition and reduce financial distress probability. [1]–[3], [5] conclude that profitability has a significant negative effect on financial distress.

3. Research Method

The study employed a literature review method to collect data and information about financial distress. The literature review uses theories, findings, and other materials as the core data of the study. It exposes analysis results, resumes, and researchers' ideas about the topics written on some sources under study. A good literature review must be pertinent, up-to-date, and sufficient. A literature review may be done through theoretical premises or reviews. Data came from databases such as PubMed, ScienceDirect, and Garuda. Then we used PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) to obtain the desired articles for research. Our search on Google Scholar with the keywords "Financial Contamination Return on Assets (ROA)" and

“Financial Distress” resulted in 35 international journal articles published from 2015 to 2022. They were reviewed in this study.

4. Findings and Discussion

Based on agency theory, the ownership held by management as an agent can generalize its interests with the principal through dual roles as management and company shareholders. This study cannot prove this theory through research results that the proportion of managerial ownership cannot predict the probability of a travel and tourism sector company experiencing financial distress during the COVID-19 pandemic. According to [10], financial distress is not caused by a high or low proportion of managerial ownership but rather leads to management performance factors in managing the company itself. In addition, according to [17] the proportion of share ownership by management disclosed by the company tends to be used only as a symbol with the aim of attracting investors’ attention. Therefore, the high or low composition of shares owned by the company’s management does not affect the components that make up the Z-Score, so we can use it as a benchmark for determining the probability of financial distress. This finding aligns with [10], [11], showing no effect of managerial ownership on financial distress. Both studies state that the existence of managerial ownership cannot be a benchmark for assessing the probability of financial distress.

According to [18] financial distress is an economic point of view in sales growth. Financial distress in agricultural companies can be seen in the company’s internal, namely the distribution section. Sales not in line with expectations or the product will lead to poor distribution channels resulting in company losses. This means the company can keep away from financial distress while maintaining the continuity of its operations. According to [14], [19] investing company assets in the form of investments for the expected return on profits is the ROA. In considering the effectiveness of the industry to create profit, the assets owned must be utilized by the company. The liquidity ratio is a transient obligation to meet the company’s ability. The liquidity ratio is calculated by inventory to net working capital by comparing the total inventory divided by the company’s working capital. The liquidity ratio in future and current developments is calculated by means of a company’s current assets and short-term liabilities, so the company can be said to be good or vice versa. [20]–[22] mention that in making a profit, the company must reflect the Net Profit Margin (NPM) from each sale. With the efficient use of materials and labor, the company can generate profits by producing and selling its products.

According to [20]–[22], the net profit from each sale reflects the ability to determine the NPM. The low NPM happens because of lack management efficiency to reduce costs which can reduce the amount of net profit. This condition leads to financial distress, which causes the probability of bankruptcy. This is because the internal company complicates sources of financial funding for investment. Financial distress refers to an unhealthy condition. According to [19], [23], NPM negatively affects financial distress. This means that the higher the NPM, the lower the financial distress. Significantly, the NPM that negatively affects financial distress is acceptable, i.e., the more the company can generate revenue, the more it will avoid financial distress.

According to [18], [24], ROA is the company’s assets invested for the expected return on profits. High ROA can assess the quality and performance of the company to generate net income

so that this ROA will not enter into a financial distress situation. According to [14], [19], [20], [23], when financial conditions cannot be handled properly, financial distress happens. The regression coefficient shows that ROA significantly and positively affects financial distress. In other words, if financial distress decreases, the ROA will increase. Significantly, ROA positively affects acceptable financial distress; in other words, the more companies can avoid financial distress, they can generate profits from resources or assets. The finding aligns with [14], [20], [22], stating that ROA negatively affects financial distress. Profitability refers to the power to obtain profits from assets. This ratio shows the efficiency level of a company's asset processing because ROA determines the ability to utilize financial resources.

The ability to pay off current liabilities using cash flows from operating activities can indicate the possibility of financial distress. The proportion or percentage of shares owned by management has no effect on the possibility of financial distress. Hospital companies should add independent variables to test how they affect the probability of financial distress, such as liquidity ratios, leverage, and efficiency. Using other proxies for independent variables such as Return on Equity (ROE) for profitability variables, the ratio of operating cash flows to capital expenditures for CFO variables, and institutional ownership for other proxies of ownership structure, and using other bankruptcy prediction models.

5. Conclusion

As proxied by ROA, profitability negatively affects the probability of financial distress in hospitals during the Covid-19 pandemic. In other words, the company's ability to earn profits using its assets can indicate the probability of financial distress. As proxied by the Operating Cash Flow Ratio (OCFR), the CFO variable has been shown to positively affect the probability of financial distress in hospitals during the Covid-19 pandemic. This shows that the company's ability to pay off current liabilities using cash flows from its activities can indicate the probability of financial distress. The managerial ownership variable is not proven to affect hospitals' financial distress probability during the Covid-19 pandemic. This shows that the small or large proportion or percentage of shares owned by management does not affect the probability of financial distress. The recommendation for hospitals as accompanies is to add independent variables to test how they affect the probability of financial distress, such as liquidity ratios, leverage, and efficiency. Using other proxies for independent variables such as Return on Equity (ROE) for profitability variables, the ratio of operating cash flow to capital expenditures for CFO variables, and institutional ownership for other proxies of ownership structure, and using other bankruptcy prediction models.

References

- [1] R. T. Ariska and M. Arief, "The Effect of Gender Diversity and Financial Ratios on Financial Distress in Hospital Companies Indonesia," *Business and Accounting Research (IJEBAR)*, vol. 5, no. 1, 2021, Accessed: Sep. 08, 2022. [Online]. Available: <https://jurnal.stie-aas.ac.id/index.php/IJEBAR/article/view/2225/1095>

- [2] R. Crespí-Cladera, A. Martín-Oliver, and B. Pascual-Fuster, "Financial distress in the hospitality industry during the Covid-19 disaster," *Tour Manag*, vol. 85, p. 104301, Aug. 2021, doi: 10.1016/j.tourman.2021.104301.
- [3] L. Gibilaro and G. Mattarocci, "Financial Distress and Information Sharing: Evidences from the Italian Credit Register," *Risks*, vol. 9, no. 5, p. 94, May 2021, doi: 10.3390/risks9050094.
- [4] Ciptawan and Brian Owen Frandjaja, "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," *Brian Owen Frandjaja*, vol. 3, no. 1, 2022.
- [5] K. D. Duong, L. T. D. Truong, T. N. Huynh, and Q. T. Luu, "Financial constraints and the financial distress puzzle: Evidence from a frontier market before and during the Covid-19 pandemic," *Investment Analysts Journal*, vol. 51, no. 1, pp. 35–48, Jan. 2022, doi: 10.1080/10293523.2022.2037202.
- [6] H. Qian, B. Wang, M. Yuan, S. Gao, and Y. Song, "Financial distress prediction using a corrected feature selection measure and gradient boosted decision tree," *Expert Syst Appl*, vol. 190, p. 116202, Mar. 2022, doi: 10.1016/j.eswa.2021.116202.
- [7] B. Huang, X. Yao, Y. Luo, and J. Li, "Improving financial distress prediction using textual sentiment of annual reports," *Ann Oper Res*, Mar. 2022, doi: 10.1007/s10479-022-04633-3.
- [8] C. Jan, "Financial Information Asymmetry: Using Deep Learning Algorithms to Predict Financial Distress," *Symmetry (Basel)*, vol. 13, no. 3, p. 443, Mar. 2021, doi: 10.3390/sym13030443.
- [9] A. Malakauskas and A. Lakštutienė, "Financial Distress Prediction for Small and Medium Enterprises Using Machine Learning Techniques," *Engineering Economics*, vol. 32, no. 1, pp. 4–14, Feb. 2021, doi: 10.5755/j01.ee.32.1.27382.
- [10] T. Tsoulouhas, "Why do countries in financial distress strategically delay seeking help?," *Journal of Government and Economics*, vol. 2, p. 100006, 2021, doi: <https://doi.org/10.1016/j.jge.2021.100006>.
- [11] H. Tarighi, Z. N. Hosseiny, M. R. Abbaszadeh, G. Zimon, and D. Haghighat, "How Do Financial Distress Risk and Related Party Transactions Affect Financial Reporting Quality? Empirical Evidence from Iran," *Risks*, vol. 10, no. 3, p. 46, Feb. 2022, doi: 10.3390/risks10030046.
- [12] Hamid Rahimi, Mehrzad Minooe, and Mohammad Reza Fathi, "Predicting the Financial Distress of Companies Listed on the Tehran Stock Exchange Using DEA-DA Technique and Artificial Neural Network," *Karafan Quarterly Scientific Journal*, vol. 19, no. 2, pp. 521–549, 2022, doi: <https://doi.org/10.48301/kssa.2021.275411.1408>.
- [13] Kezia Cicilia Sumajow, Lintje Kalangi, and Priscillia Weku, "The Effect of Financial Distress, Audit Committee, Auditor Switching, and Industry Types on Audit Delay in the Covid- 19 Pandemic of Companies Listed on the Indonesian Stock Exchange's KOMPAS100 Index," *International Journal of Accounting & Finance in Asia Pasific (IJAFAP)*, vol. 5, no. 1, pp. 1–11, 2022.
- [14] M. Rahman, C. L. Sa, and Md. A. K. Masud, "Predicting Firms' Financial Distress: An Empirical Analysis Using the F-Score Model," *Journal of Risk and Financial Management*, vol. 14, no. 5, p. 199, May 2021, doi: 10.3390/jrfm14050199.

- [15] Putu Adi Paramartha and Ni Luh Putu Wiagustini, "Determination of Financial Distress in Manufacturing Companies on the Indonesia Stock Exchange," *International Journal of Management Studies and Social Science Research*, vol. 3, no. 3, 2021.
- [16] C. I. E. Pratiwi, H. B. Suprasto, M. M. R. Sari, and D. Ariyanto, "The effect of financial distress on earning management practices using classification shifting: The moderating effect of good corporate governance," *Accounting*, vol. 8, no. 2, pp. 187–196, 2022, doi: 10.5267/j.ac.2021.7.002.
- [17] I Gusti Agung Ayu Pritha Cinantya and Ni Ketut Lely Aryani Merkusiwati, "Pengaruh Corporate Governance, Financial Indicators, dan Ukuran Perusahaan Pada Financial Distress," *e-Jurnal Akuntansi*, vol. 10, no. 3, 2015.
- [18] D. Mesak and I Made Sukarta, "Financial Ratio Analysis in Predicting Financial Conditions Distress in Indonesia Stock Exchange," *Russ J Agric Socioecon Sci*, vol. 86, no. 2, pp. 155–165, Feb. 2019, doi: 10.18551/rjoas.2019-02.18.
- [19] Dihin Septyanto and Nadia Figrita Welandasari, "Effects of Current Ration, Debt to Asset Ratio, and Return to Success on Financial Distress in Indonesia Stock Exchange," in *Prosiding ICSMR*, 2020, pp. 231–247.
- [20] N. Nurhayati, A. Mufidah, and A. N. Kholidah, "The Determinants of Financial Distress of Basic Industry and Chemical Companies Listed in Indonesia Stock Exchange," *Review of Management and Entrepreneurship*, 2018.
- [21] N. Indriaty, D. Setiawan, and Y. A. Pravasanti, "The Effects of Financial Ratio, Local Size and Local Status on Financial Distress," *International Journal of Economics, Business and Accounting Research (IJEBAR)*, vol. 3, no. 01, p. 38, Apr. 2019, doi: 10.29040/ijebar.v3i01.381.
- [22] Sarwo Kuncoro and Sarwo Kuncoro, "Factors to Predict The Financial Distress Condition of the Banking Listed in The Indonesia Stock Exchange," *Accounting Analysis Journal*, vol. 6, no. 1, pp. 39–47, 2017.
- [23] Y. Zizi, A. Jamali-Alaoui, B. El Goumi, M. Oudgou, and A. El Moudden, "An Optimal Model of Financial Distress Prediction: A Comparative Study between Neural Networks and Logistic Regression," *Risks*, vol. 9, no. 11, p. 200, Nov. 2021, doi: 10.3390/risks9110200.
- [24] Kumba Digdowiseiso and Intan Sulistia Ningrum, "The Effects of Total Asset Turnover, Return on Assets, And Sales Growth on Financial Distress in Food and Beverage Companies over the Period 2016-2020," *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, vol. 5, no. 2, pp. 12046–12058, 2022.