

THE PANDEMIC INFLUENCE TO FIRM SIZE AND FINANCIAL RATIO ON LISTED COMPANIES IN THE HEALTHCARE INDUSTRY

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Abstract - During the pandemic, the government enacted policies that restricted people's travel, impacting corporate development across the board. The study's goal is to analyze the influence of the pandemic on firm size and financial ratios of companies listed on the Indonesia Stock Exchange in the Healthcare industry. Market capitalization statistics, return on assets, and debt to equity ratios were used as study samples. To assess the research hypothesis, the Wilcoxon sign rank test was performed. According to the findings of the study, return on assets decreased significantly during the pandemic, debt to equity ratio remained stable and did not vary significantly, and company size increased significantly during the pandemic. Companies in the post-pandemic period must pay close attention to the proper composition of funding sources in order to boost profitability and gain the trust of investors.

Keywords: Debt to Equity; Financial Ratio; Firm Size; Pandemic Covid-19; Return on Asset

1. INTRODUCTION

The Covid-19 pandemic has prompted the government to enact several restrictions to mitigate the pandemic's impact, such as social distancing policies, working from home policies, and other policies (Fitriani & Nuraya, 2022). To prepare for the pandemic, the health sector is developing services such as integrating new technology in the realm of virtual health services, which is one strategy for treating many patients while limiting health-care expenditures (Biancuzzi et al. 2023). Companies in the health industry can employ their own capital or cash from the owner, as well as debt guarantees, to meet their funding needs. If the company uses loan funds, it will have to pay interest fees on a regular basis, which is a fixed expense for the company.

Every time a company conducts business, it is frequently confronted with internal challenges, one of which is the issue of company funding. Funds are the most crucial aspect of

a company since they allow it to carry out its operational activities and fulfill its commitments. Companies can use a variety of alternative sources of finance, including sources of money from within and outside the company. Companies can use retained earnings as a source of internal funding and debt, issue debt (bonds), and issue debt as a source of external funding (Mulyono & Saraswati, 2020).

Companies who choose to employ debt as supplementary capital in carrying out their operational activities can profit from a number of advantages. First, the presence of interest reduces the company's tax burden. Second, debt providers or creditors are not entitled to a portion of the company's revenues; instead, they only collect interest charges paid by the company borrowing the cash. Third, lenders do not have the right to manage the corporation unless they intervene (Brigham & Ehrhardt, 2005).

However, it is critical for businesses where the debt-equity arrangement can enhance firm performance or value. The usage of debt and equity in a business's capital structure is referred to as a special approach that managers can utilize to boost company success. Several company-specific variables, such as changes in firm size, systematic risk, industry definition, liquidity, and leverage, play an important role in explaining variations in corporate profitability and stock returns. A company's capital structure is a combination of debt and equity used to finance the company's activities (Abor & Biekpe, 2005). In general, businesses can pick from a variety of alternative capital structures by spending more or less money.

Capital structure is a critical subject or issue that must be addressed by capital owners and financial management. This issue emerges as a result of the company's restricted resources for carrying out its industrial activities. In this instance, finance decisions are critical for the company's well-being; one mistake in decision-making might result in financial difficulties or even insolvency (Eriotis, Vasiliou, & Neokosmidi, 2007). The capital structure of a firm is a mix or combination of debt and equity capital (Ross, Westerfield, Jaffe, & Jordan 2021). As a result, a company's capital structure is merely one component of its financial structure.

In addition to what has already been stated, capital structure is a specific combination of long-term debt and a company's own capital utilized to support its operating activities. In this instance, the financial management will concentrate on two primary issues: the first is the best combination of long-term debt and own capital for the company, because the combination chosen will effect the company's risk and value. Meanwhile, the second goal is to find the most cost-effective source of firm money. To acquire an ideal capital structure, a corporation must first determine how much capital it incurs for the usage of that capital, because the optimal capital structure is one that can reduce its capital costs (Eriotis, Vasiliou & Neokosmidi, 2007).

In general, the source of the capital can be considered as matching the needs for firm funding sources. This cash was obtained from two sources: internal and external to the company (Brigham & Houston, 2021). Debt from creditors is the capital structure that a firm need to enhance its capital requirements (Abor & Biekpe, 2005). This sort of debt uses the debt ratio measurement as the amount of measurement of debt owned by the company in this type of research.

According to Brigham and Houston (2021), a signal is an activity done by corporate management to provide investors with information about the company's prospects. According to Drobetz and Fix (2003), corporations will first utilize internal capital to finance new projects, and if this is insufficient, they will seek external funding by issuing cheaper securities, such as debt, then convertible bonds, and lastly new shares. Asymmetric information happens when management has more information than investors, according to Husnan (2012). As a result, management may believe that the current share price is overvalued (expensive).

Firm performance is a result or success attained by a firm in carrying out its functions and managing the company over a specific time period in order to obtain trust from society, external parties, and the government. This company's performance can be seen through the different factors that influence it, both financially and operationally. The cash flow, financial statements, profit and loss report, and balance sheet are examples of financial characteristics that must be evaluated when determining if a firm is excellent or poor (Gitman, Juchau, & Flanagan, 2015).

When allocating funds in the capital market, investors will pay special attention to a company's strong financial performance. According to various academics, debt has an impact on profitability. Companies claim that the effective use of capital is the key to growing profitability. It can be inferred that firm performance is effective in projecting a company's ability to create cash flow from its own resources (Helfel, 2003).

The gross profit margin is the percentage of each sale that remains after the company has paid for the items. The lower the items sold, the bigger the gross profit margin. Return on Assets (ROA) is another name for the company's ability to generate a return on investment, which is a complete evaluation of the company's successes. ROA represents the amount of income generated by the company's average assets. This measurement is also used as a measure of management effectiveness in seeking profits by utilizing available assets (Gitman, Juchau, & Flanagan, 2015), if the company is below the industry average, due to the company's low basic power to generate profits and high waste costs due to the company's average use of debt, which is partly caused by relatively low profits.

According to Brigham and Houston (2021), short-term debt is defined as debt with a borrowing period of one year or less. Meanwhile, Hall, Hutchinson, and Michaelas (2004) define short-term debt as the proportion of total debt that can be paid off within a year. This short-term debt comprises bank overdrafts, one-year bank loan debt, and other current loans. Based on the aforementioned definition, short-term debt is defined as debt used to cover seasonal demands and current assets that must be returned within one year or less.

Short-term debt, according to Gitman, Juchau, & Flanagan (2015), includes:

- Accruals are obligations originating from services obtained by the firm but for which payment has not been paid by the company.
- Trade payables are obligations deriving from credit purchases made by the company.
- Short-term bank loans are loans with no collateral that are made available through a process that does not need repayment.
- Commercial paper is a type of unsecured short-term debt financing issued by large, well-known corporations.

Long-term debt, according to Kieso, Weygant, and Warfield (2020), is debt resulting from obligations that are not paid within one year. Long-term debt includes notes payable, bonds, pension debt, and lease obligations. Meanwhile, Hall, Hutchinson, and Michaelas (2004) discovered in their research that long-term debt is defined as the entire debt of the organization that can be paid off in more than one year. Long-term debt comprises long-term bank loans and other long-term debt that can be repaid over time, such as director's loans, acquisitions, and lease commitments. Based on the aforementioned definition, long-term debt is defined as a company's commitments with maturities of more than one year.

According to Blainc (2004), corporations utilize debt with the hope that the income they would receive will be more than the funds spent on the debt, hence the consequence of debt is to raise the company's income. Trade credit is the most common source of short-term funding, particularly for large, legitimate businesses. Because trade credit creditors deliberately give

credit to the company, trade debt is regarded to have a favorable link with performance (Abor & Biekpe, 2005).

The impact of total debt and different types of debt, such as bank loans and trade credit, on corporate performance is negative and significant. If the company's overall debt ratio is more than its own capital, the higher the risk that the company must face, which can lead the company to go bankrupt or cause the company to go bankrupt because the firm is not disciplined in paying debts (Februansyah & Yanuarti, 2017). Roden and Lewellen (2002) discovered a positive association between profit and overall debt as a percentage of debt payments in their debt research. The greater the debt, the greater the ability to produce profits (Abor & Biekpe, 2005).

The size of the corporation can be determined by the equity value, sales value, and total asset value. The more assets a corporation uses to guarantee its debts, the more options to borrow or owe more (Mulyono, Manurung, & Suprpto, 2019). Large organizations have larger leverage ratios than small companies because large companies are more diversified, reducing the likelihood of insolvency (Kurshev and Ilya, 2005). According to Nguyen and Ramachandran (2006), large organizations can benefit from economies of scale when issuing long-term debt and even have the capacity to bargain with creditors and have more steady cash flows, hence the possibility of bankruptcy for large companies is significantly smaller than for small businesses.

Profitability, as defined by Gitman, Juchau, and Flanagan (2015), is a relationship between income and costs resulting from the utilization of corporate assets (current and fixed) in productive activities. According to Dobetz and Fix (2003), larger revenue will be obtained under pecking order theory conditions if financial leverage is low. The corporation will prioritize using retained earnings as a source of company funding and will turn to debt when the investment surpasses the company's retained earnings. If the firm's internal funding sources are regarded to be increasingly profitable, the company will be able to finance itself. Regarding profitability, the hypothesis proposed is H1: There is an influence of the Covid-19 pandemic on company profitability.

According to Padron et al. (2005), organizations with high growth prospects have a lower leverage ratio than companies with poor growth opportunities, because funding through shares is a technique that decreases investment problems associated with funding through debt. According to Driffield et al. (2005), the level of company debt and the level of growth have a positive relationship; the higher the growth of a company, the greater the need for funding, so the company is likely to experience a lack of funds to finance the company's growth rate by relying solely on internal funding. Regarding company debt, the hypothesis proposed is H2: There is an influence of the Covid-19 pandemic on company debt.

Growth opportunities, according to Ross, Westerfield, Jeffe, and Jordan (2021), are possibilities to invest in profitable projects because these projects can represent a large portion of the company's worth. According to Brigham and Gapenski (2002), companies with a high level of growth require big external sources. Typically, the cost of issuing shares will be more than the cost of issuing debt securities. As a result, organizations with strong growth rates tend to use more debt, indicating a positive association between growth potential and leverage. Regarding company size, the hypothesis proposed is H3: There is an influence of the Covid-19 pandemic on company size.

2. RESEARCH METHODOLOGY

Through hypothesis testing, this study seeks to determine the amount to which the independent factors of firm size, return on assets, and debt to equity influence the dependent variable, namely the company's profitability structure. The hypothesis testing approach is used in this research design. This method is used to explain the impact of company size, return on assets, and debt to equity on profitability of companies listed on the Indonesia Stock Exchange in the healthcare area.

Tabel 1. Healthcare Company Listed on Indonesia Stock Exchange 2019 - 2022

No	Code	Name of Company	No	Codee	Name of Company
1	DVLA	Darya-Varia Laboratoria Tbk.	9	PRDA	Prodia Widyahusada Tbk.
2	HEAL	Medikaloka Hermina Tbk.	10	PRIM	Royal Prima Tbk.
3	INAF	Indofarma Tbk.	11	PYFA	Pyridam Farma Tbk
4	KAEF	Kimia Farma Tbk.	12	SAME	Sarana Meditama Metropolitan Tbk
5	KLBF	Kalbe Farma Tbk.	13	SIDO	Industri Jamu dan Farmasi Sido
6	MERK	Merck Tbk.	14	SILO	Siloam International Hospitals
7	MIKA	Mitra Keluarga Karyasehat Tbk.	15	SRAJ	Sejahteraya Anugrahjaya Tbk.
8	PEHA	Phapros Tbk.	16	TSPC	Tempo Scan Pacific Tbk.

Purposive sampling was utilized in this study, which means that the sample was chosen based on specific criteria. This study takes into account statistics from the year before the pandemic, 2019, and the year after the pandemic, 2022. This study makes use of secondary data, which, according to Sekaran and Bougie (2016), is information gathered from existing sources. Data was gathered using information from the Indonesian Stock Exchange about the annual reports of the companies in the research sample. This study's confidence level (alpha) is 5%, or p-value 0.05.

A nonparametric test employing the Wilcoxon signed-rank test technique was employed in this study. The Wilcoxon signed rank test is used to evaluate if two samples' population mean ranks differ, to compare related samples, or to perform a test of paired differences of repeated measurements on a single sample. This test is used to compare the locations of two dependent samples, and it is also used to test the hypothesis that the median of a distribution is symmetric. This study used hypothesis testing to estimate the impact of the Covid-19 pandemic on financial ratios of organizations in the Healthcare industry. ROA (return on assets) is the financial ratio being assessed. DER (debt to equity ratio) and EPS (Earnings per Share), with the conclusion that H₀ is rejected if the p-value is 0.05.

3. RESULT AND DISCUSSION

In this study, descriptive statistics are used to translate research data into tabular form, making it easier to grasp and interpret. Researchers typically utilize descriptive statistics to provide information on the characteristics of the primary research variables. Table 2 displays descriptive statistics.

Table 2. Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
ROA Before	16	5.27	7.15	-5.55	21.80
ROA After	16	0.07	0.10	-0.12	0.29
DER Before	16	0.65	0.56	0.09	1.87
DER After	16	0.93	1.19	0.06	4.57
SIZE Before	16	11.58	19.67	0.11	75.94
SIZE After	16	15.39	25.05	0.46	97.97

Based on descriptive statistical analysis of data from 16 companies, the average ROA value before the pandemic was 5.27, which was greater than the average ROA value after the pandemic, which was 0.07. Before the pandemic, the average DER value was 0.65, which was lower than the average DER value after the pandemic, which was 0.93. The average SIZE value before the pandemic was 11.58 smaller than the average SIZE value after the pandemic, which was 15.39.

Table 3. Wilcoxon Signed Ranks Test

		N	Mean Rank	Sum of Ranks
ROA_After - ROA_Before	Negative Ranks	13	9.15	119.00
	Positive Ranks	3	5.67	17.00
	Ties	0		
	Total	16		
DER_After - DER_Before	Negative Ranks	8	6.25	50.00
	Positive Ranks	7	10.00	70.00
	Ties	1		
	Total	16		
SIZE_After - SIZE_Before	Negative Ranks	3	5.33	16.00
	Positive Ranks	13	9.23	120.00
	Ties	0		
	Total	16		

According to the Wilcoxon Signed Rank Test results in Table 3, the ROA value has 13 negative rankings, 3 positive ranks, and 0 ties. In general, ROA values have fallen more than they have risen. The DER value has a negative rank of 8, a positive rank of 7, and a tie rank of 1. The DER value generally lowers as much as it grows. The SIZE value has three negative ranks, thirteen positive ranks, and no ties. In general, the SIZE value increases more than it lowers.

Table 4. Statistics Test

	Z	Asymp. Sig. (2-tailed)
ROA After - ROA Before	-2.64	0.01
DER After - DER Before	-0.57	0.57
SIZE After - EPS Before	-2.69	0.01

The Asymp value is calculated using the results of the statistical test computations in Table 4. The 2-tailed sig or p-value of ROA of 0.01 is less than 0.05, hence the hypothesis decision is accepted H1, indicating that the pandemic has an impact on corporate profitability in the healthcare industry. The DER p-value of 0.57 is greater than 0.05, indicating that the hypothesis decision is rejected H2, indicating that the pandemic has no effect on firm solvency in the healthcare industry. Because the SIZE p-value is less than 0.05, the hypothesis decision is accepted H3, indicating that the pandemic has an effect on the firm size in the healthcare industry.

4. CONCLUSION

The Covid-19 pandemic, which lasted several years, prompted the government to implement policies to mitigate its impact on society and business. The government's policies include restrictions on community mobility, social distancing, and other measures. The Covid-19 pandemic also has an influence on firms in the healthcare industry, as these companies supply health services, drugs, and vitamins to Covid-19 patients.

The profitability variable (ROA) had a large fall during the pandemic, indicating that companies in the healthcare industry experienced a decline in profitability during the pandemic. Because the solvency variable (DER) is often steady and non-significant, the data shows that companies in the healthcare industry did not modify the composition of their debt during the pandemic indicating that enterprises in the healthcare industry witnessed a drop in profitability during the pandemic. The firm size variable has increased dramatically during the pandemic, indicating that investor trust in the share prices of healthcare companies has increased during the pandemic.

Companies in the healthcare business must pay attention to the right composition of funding sources in the post-pandemic phase in order to boost the company's profitability. Companies with strong profitability will cut their debt ratio in order to boost the company's potential to grow and gain the trust of investors. Researchers should perform additional research on other industrial sectors, including as transportation, which could be influenced by government laws restricting people's mobility during the pandemic.

5. RESEARCH LIMITATION

The drawback of this research is that it was only conducted on companies listed on the Indonesia Stock Exchange in the Healthcare sector, thus the results cannot be extrapolated to other companies outside the healthcare company industry and are only confined to the sample investigated.

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