



Financial Performance of Jakarta Hospitals Before and After the COVID-19 Pandemic: Analysis of Profitability, Liquidity, and Leverage Ratios

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ABSTRACT: The COVID-19 pandemic has had a significant impact on the healthcare sector, particularly on hospitals, which faced operational and financial challenges due to increased operational costs and changes in service patterns. This study aims to evaluate the financial performance of hospitals in Jakarta before, during, and after the COVID-19 pandemic. The analysis was conducted using financial ratios, including Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) to measure profitability; Current Ratio and Quick Ratio to measure liquidity; and Debt to Asset Ratio (DAR) and Debt to Equity Ratio (DER) to measure leverage. This study employed a quantitative descriptive method using secondary data in the form of financial statements from hospitals in Jakarta for the period 2018–2024. The results showed that profitability, liquidity, and leverage ratios experienced significant improvements during the pandemic compared to the pre-pandemic period. The Indonesian government's policy of funding COVID-19 patients played a major role in enhancing hospital financial performance during the pandemic. Furthermore, the financial performance of hospitals in Jakarta demonstrated a significant improvement post-pandemic compared to the pre-pandemic period. These findings provide valuable insights for hospital management and policymakers in formulating financial strategies to enhance the sustainability of hospital operations in the post-pandemic era.

Keywords: Return on Assets, Return on Equity, Net Profit Margin, Current Ratio, Quick Ratio, Debt to Asset Ratio, Debt to Equity Ratio



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INTRODUCTION

The COVID-19 pandemic has considerably impacted various sectors, including the healthcare sector. Hospitals, which function as the primary frontline in addressing the pandemic, are experiencing financial strain due to increased operational expenditures and modifications in service patterns. This has led to a considerable decrease in operating margins for many hospitals.

Consequently, hospital operating margins have undergone a substantial decline. The novel coronavirus known as COVID-19 began in the Chinese city of Wuhan in the final quarter of 2019 and then spread throughout the world, inflicting great economic and human disaster. The global economy had a mixed start to 2020, expecting higher growth but being shocked by the COVID-19 epidemic at the start of the year. Due to mobility constraints, regular economic activity and business dealings were also suspended, which resulted in a sharp decline ([Fernando & Ishari, 2023](#)).

One of the most significant and perilous social and economic developments in recent decades is the COVID-19 pandemic. It negatively affects not just the economics of particular nations but also the financial standing of corporations, which in turn affects the lives of hundreds of millions of people worldwide ([Naruć, 2022](#)). The onset of the COVID-19 pandemic in early 2020 has substantially impacted various sectors, including the healthcare sector. Healthcare institutions, such as hospitals responsible for providing community healthcare services, have faced significant challenges and pressures. In the context of a pandemic, hospitals must adapt to the increasing number of patients and implement strict health protocols. This results in increased operational costs, such as Increased operational costs due to the need for personal protective equipment (PPE) and additional resources to manage COVID-19 patients ([Kaye et al., 2021](#)). Hospitals in both rural and urban areas experienced a decline in operating margins, although government funding helped to prevent a more severe financial crisis ([Li et al., 2023](#)).

Due to a sharp decline in revenue and a twofold increase in costs, many hospitals were unable to handle the detrimental financial and medical effects of COVID-19. However, as time went on and during the 2020–2021 medium-term period, the negative effects and consequences of the COVID-19 shock on hospitals' operational, economic, and financial indicators diminished and were followed by a comparatively stable improvement in the indicators, which ultimately led to an increase in hospitals' efficiency ([Ahangar et al., 2023](#)). Hospitals' financial performance and service performance have suffered since the start of COVID-19 because of restrictions on patient care. It is crucial to take steps like offering a range of funding options and enhancing hospitals' financial stability. Hospitals should receive funding to make up for their losses from lower outpatient and elective revenue ([Jalilian et al., 2023](#)).

In the context of the present study, it is imperative to undertake a comprehensive evaluation of hospitals' financial performance, both before and in the aftermath of the pandemic caused by COVID-19. The measurement of financial performance can be accomplished by utilizing various financial ratios, including but not limited to profitability, liquidity, and leverage ratios. The aforementioned statistics offer a thorough assessment of the hospital's ability to turn a profit, pay short-term debt, and manage debt. Hospital management must comprehend the alterations in financial performance to strategically enhance operational efficiency and financial sustainability in the future. A primary focus for hospitals should be the augmentation of financial reserves, the cultivation of non-operating revenue streams, and the implementation of operational efficiencies to foster enhanced financial resilience ([Lalani et al., 2023](#)). For-profit hospitals encounter substantial financial challenges due to their reliance on elective procedures, which were suspended during the pandemic. These hospitals are more susceptible to financial difficulties compared to non-profit hospitals ([Kruse & Jeurissen, 2020](#)). Hospitals must also prioritize enhancing

management efficiency and financial resilience to ensure survival and thrive independently, particularly in regions where government support may be constrained ([Yang, 2023](#)).

A number of prior studies have examined the financial performance of hospitals in a context pertinent to this subject. According to ([Pantjatmono et al., 2024](#)) Findings indicate that financial performance exhibited enhancements subsequent to the emergence of the pandemic. Hospital administrators and other stakeholders can use this research's practical insights to create more effective financial management plans both during and after the pandemic. ([Nur Sidiq et al., 2022](#)) study of UNS Hospital's liquidity ratio initially indicated a favorable condition, as it exceeded the established healthy criteria limit. In the post-pandemic period, there was an increase in the current and quick ratios, suggesting the hospital's capacity to meet short-term obligations. However, there was a decline in the cash ratio, which may signify alterations in cash management or an augmented reliance on cash for operational needs.

When comparing Hospital's financial performance, financial aspects, and sub-aspects of financial ratios before and during the COVID-19 epidemic, non-tax revenues did not decline. According to the income to operational costs ratio or the capacity of Hospital to use its income to fund hospital operations, the COVID-19 pandemic situation has no bearing on this ratio ([Masloman et al., 2022](#)). In order to assess a company's financial performance and evaluate whether financial performance declined prior to and following the COVID-19 epidemic, financial statements are a crucial component([Nadiyah Rahmani et al., 2023](#)). The most extensively studied financial ratios profitability, liquidity, solvency, effectiveness, and market ratios are used to compare the financial performance of businesses. The profitability, liquidity, and solvency ratios are three measures of the hospitality industry's financial performance that are frequently employed in studies ([Nurwitasari et al., 2023](#)). The present study utilized three ratios—namely, the profitability ratio, liquidity ratio, and leverage ratio—to assess financial performance. These ratios were selected to provide a comprehensive evaluation of the hospital's financial health. The study incorporated seven additional ratio parameters to enhance the clarity and comprehensiveness of the analysis.

Profitability

A company's ability to make money off of its income, assets, and equity is evaluated using financial metrics known as profitability ratios. This ratio is composed of Return on Equity (ROE) and Return on Assets (ROA). The company's primary goal is to maximize profits for the benefit of its owners, members, and product development. In order to sustain profitability, management must meet predefined goals ([Fatwa et al., 2023](#)). A ratio called return on assets (ROA) is used to assess a company's capacity to produce a profit from all of its assets. ROA demonstrates how well management uses the company's resources to produce profits. The larger the ROA number, the better the company's performance in utilizing its assets to generate profits.

An indicator of a company's capacity to provide net income for shareholders' equity returns is return on equity, or ROE ([Efendi & Wibowo, 2017](#)). The return on equity (ROE) indicates how effectively a business uses shareholder investment to produce profits. ROE provides an overview of how much profit is generated for every rupiah of capital invested by shareholders. Investors often use ROE to evaluate a company's performance before making an investment decision.

A financial statistic called net profit margin (NPM) gauges how well a business makes net profit from its overall sales or revenue. The percentage of revenue left over after all operational costs, taxes, and other expenses are subtracted is displayed by this ratio. To put it another way, NPM provides an estimate of the amount of profit made for every unit of revenue received.

Liquidity

A company's capacity to meet its immediate obligations is evaluated using liquidity metrics like the Quick Ratio and Current Ratio (CR). Good liquidity usually has a beneficial impact on the Company's profitability ([D. Ayoush et al., 2021](#)). The liquidity ratio is a measure of a company's capacity to settle all short-term debts with their present assets when they mature ([Novianti et al., 2021](#)). A company's capacity to satisfy its short-term obligations is gauged by its liquidity, which is calculated by comparing those obligations to its current assets ([Fatwa et al., 2023](#)). A liquidity ratio called the current ratio is used to assess how well a business can use its short-term assets to pay its short-term liabilities. An overview of the company's financial situation and the effectiveness of management's asset and liability management are given by this ratio. Because of the size of the company's current obligations in relation to its current assets, the current ratio has decreased. The company's ability to pay off its short-term debts is weakened if the value of its current assets is less than its current liabilities ([Rachmatullah et al., 2023](#)). A financial metric called the quick ratio is used to evaluate a company's capacity to pay short-term debts with its most liquid assets. This does not include inventory, but it does include cash, receivables, and marketable securities.

Leverage

Leverage ratios, such as Debt to Equity Ratio (DER) and Debt to Asset Ratio, measure the extent to which a company uses debt to finance its assets. Leverage has a significant negative impact on profitability, indicating that high dependence on debt can reduce company profits ([Samo & Murad, 2019](#)). Financial measures such as the debt-to-equity ratio and the interest coverage ratio aid in assessing the company's debt load and its capacity to pay interest on that debt. Leverage is the term used to describe the usage of borrowed funds by the business ([Moridu, 2024](#)).

A financial measure called the debt to asset ratio (DAR) indicates what proportion of the company's total assets are financed by debt. This ratio provides an overview of the company's capital structure and how much the company depends on debt to finance its assets.

A financial measure called the Debt to Equity measure (DER) contrasts the total amount of debt and equity held by the organization. This ratio gives a summary of the company's capital structure and is used to gauge how much debt the business utilizes to finance operations and investments. The company's level of ROA attainment will be impacted by both high and low DER ([Tullah et al., 2023](#)).

METHOD

To elaborated and develop this research lead to the following enhancing the model.

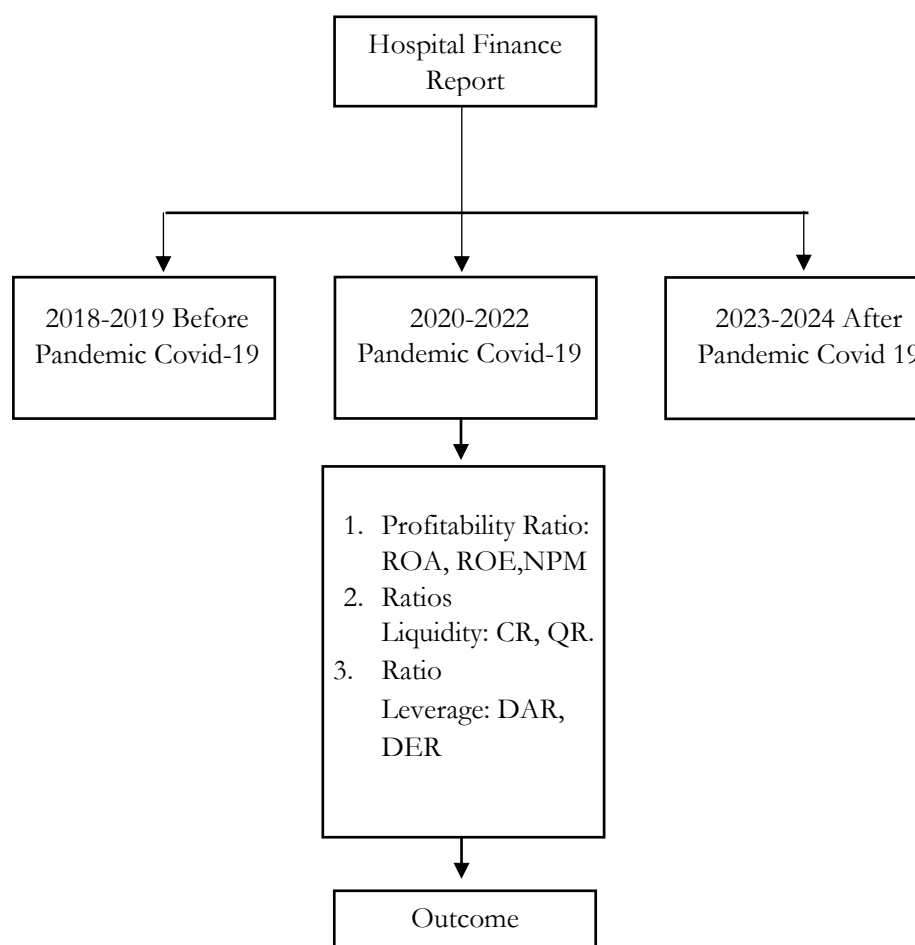


Figure 1. Research Concept Model

This study aims to determine the financial performance of Jakarta hospitals both before and after the COVID-19 pandemic started. The pandemic has had a particularly negative effect on the hospital sector, thus an examination of its financial situation both before and after the epidemic is necessary.

This research uses descriptive quantitative methods. This research method aims to objectively analyze and describe hospital financial data based on financial ratio calculations. This approach is suitable for evaluating changes in financial performance the COVID-19 epidemic utilizing financial statement numbers before and after.

The study was conducted in Jakarta City, a region known for its cultural diversity and a blend of urban and semi-urban populations.

Balance sheets, income statements, cash flow statements, and notes to financial statements are among the financial statements of the Jakarta Hospital that were used as secondary data for this

study prior to the before COVID-19 pandemic in 2018–2019 and following the pandemic in 2023–2024. This secondary data is obtained from published sources, namely the audited financial statements of the Jakarta Hospital from 2018 to 2024.

To evaluate the financial performance of Jakarta Hospitals before the COVID-19 pandemic and after the COVID-19 pandemic, the Profitability Ratio, Liquidity Ratio, and Leverage Ratio are needed. The ability of the business to turn a profit from its equity and assets is gauged by the profitability ratio. Research indicates that stock liquidity and overall business performance are positively correlated with profitability ([Nisrina et al., 2023](#)). To measure the profitability ratio, four formulas are used, namely:

$$\text{ROA} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100\%$$

The ratio of the overall assets compared to total net income is known as ROA ([Mahendra & Nurdiansyah, 2022](#))

$$\text{ROE} = \frac{\text{Net Profit After Tax}}{\text{Total Equity}} \times 100\%$$

ROE is the net profit generated from own capital ([Ganiah Maulany, 2024](#))

$$\text{NPM} = \frac{\text{Net Profit After Tax}}{\text{Total Revenue}} \times 100\%$$

NPM is a comparison of estimated net income after tax with total income ([Mahendra & Nurdiansyah, 2022](#))

Liquidity ratio measured by the following formula:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

A ratio called the current ratio is used to quantify the short-term debt of a business ([Nuryasman MN, 2021](#))

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Payables}}$$

The fast ratio is a metric for rapidly calculating the ratio of current assets to short-term liabilities ([Nuryasman MN, 2021](#)).

Leverage ratio using the following formula:

$$\text{DAR} = \frac{\text{Total Liabilities}}{\text{Total Aset}} \times 100\%$$

The ratio of total assets to total liabilities, or DAR ([Ramadhan et al., 2017](#))

$$1. \text{ DER} = \frac{\text{Total Liabilities}}{\text{Total Equity}} \times 100\%$$

The ratio for all liabilities to overall equity is known as DER ([Ramadhan et al., 2017](#)).

RESULT AND DISCUSSION

The research analysis used the annual financial statements of Jakarta Hospitals from 2018 to 2024 to use ratios to analyze financial performance prior to and following the COVID-19.

Table 1. Jakarta Hospital Ratio Data

RASIO	Year						
	2018	2019	2020	2021	2022	2023	2024
ROA	9%	8%	-9%	26%	18%	14%	15%
ROE	21%	16%	-22%	56%	25%	16%	18%
NPM	3%	3%	-4%	17%	11%	8%	8%
CR	2.2	2.4	1.9	1.9	4.6	12.0	9.8
QR	2.0	2.1	1.7	1.8	4.4	11.5	9.5
DAR	56%	49%	58%	53%	28%	16%	18%
DER	127%	97%	136%	114%	39%	19%	21%

In Table 1, the hospital's financial ratio values compare data from 2018 to 2024 before covid 19, during COVID-19 19, and after covid 19. It is made based on 3 main ratios, namely profitability ratios consisting of ROA, ROE, and NPM. The Quik Ratio and Current Ratio make up the ratio. The leverage ratio is used to assess the extent to which the business relies on debt to fund its operations and investments, which include DER and DAR. From the data shown, the data fluctuates every year.

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RATIO	Before Pandemic Covid-19	Pandemic Covid-19	Before Vs During Pandemic Covid- 19	After Pandemic Covid-19	Before Vs After Pandemic Covid 19
	Average 2018- 2019	Average 2020-2022	Growth	Average 2023-2024	Growth
ROA	9%	12%	33%	14%	63%
ROE	18%	20%	6%	17%	-8%
NPM	3%	8%	146%	8%	158%
CR	2.3	2.8	22%	10.9	378%
QR	2.1	2.6	27%	10.5	408%
DAR	53%	46%	-12%	17%	-68%
DER	112%	96%	-14%	20%	-82%

Table 2 shows the financial ratios prior to, during, and following the COVID-19, demonstrating notable shifts in the performance of the company. Before the pandemic (2018-2019), the average Return on Assets (ROA) was 9%, which increased to 12% during the pandemic (2020-2022), recording a growth of 33%. But following the pandemic (2023–2024), ROA rose even more to 14%, indicating a 63% rise over the pre-pandemic period. Meanwhile, the average Return on Equity (ROE) before the pandemic was 18%, increasing to 20% during the pandemic, or a growth of 6%. However, ROE decreased to 14% after the pandemic, registering a decline of 8% compared to the pre-pandemic period. Net Profit Margin (NPM) showed a significant increase, from 3% before the pandemic to 8% during the pandemic, or a growth of 146%, and remained at 8% after the pandemic, showing a total increase of 158% compared to the period before the pandemic.

Regarding liquidity, the Current Ratio and Quick Ratio showed a substantial increase. The average Current Ratio increased from 2.3 before the pandemic to 2.8 during the pandemic and further to 10.9 after the pandemic, registering an increase of 378% compared to the pre-pandemic period. The Quick Ratio also increased from 2.1 to 2.6 during the pandemic and to 10.5 after the pandemic, showing an increase of 408% compared to the pre-pandemic period.

Finally, the Leverage Ratio, which consists of the Debt-to-Asset Ratio (DAR) and Debt-to-Equity Ratio (DER), showed a significant decline. The average DAR dropped from 53% before the pandemic to 46% during and further to 17% after the pandemic, registering a decrease of 68% compared to the pre-pandemic period. DER also decreased from 112% to 96% during the pandemic and to 20% after the pandemic, showing a decrease of 82% compared to the pre-pandemic period.

Looking at profitability ratios, two of the three parameters used, namely Return on Assets (ROA) and Net Profit Margin (NPM), experienced significant growth. ROA increased by 63%, while NPM increased by 158% from the pre-pandemic period (2018-2019) to the post-pandemic period (2023-2024). However, Return on Equity (ROE) decreased by 8%. Overall, Jakarta Hospital's profitability ratios showed excellent growth.

Positive growth in financial ratios is also supported by government policies. According to ([Kementrian Kesehatan RI, 2021](#)) covid patients who are referred to referral hospitals can have their costs reimbursed by the government and hospitals can claim reimbursement for these costs. The Jakarta hospital is also a hospital appointed by the government to treat covid 19 patients. After analyzing the hospital's income report, it turns out that the positive growth in the ratio is due to government policies that provide assistance for covid patients, after being seen, especially in 2021, 42% of the revenue contribution came from covid patients paid by the government. Without assistance from government policies, it is certain that the hospital's financial performance during covid will be negative/loss.

Finally, the leverage ratio analysis shows a significant decrease in the Debt-to-Asset Ratio (DAR) and Debt-to-Equity Ratio (DER). DAR decreased by 68%, while DER decreased by 82%. This decreases benefits Jakarta Hospitals by showing a better ability to fulfil obligations. With lower DAR and DER values, Jakarta Hospital's financial performance has become more stable and healthier. But on the other hand, this also indicates that hospital management is not investing much more precisely in fixed assets (new medical devices), after seeing the fixed assets that compare before covid 19 it turns out that the growth decreased by 37% after covid 19, this is an input for management in terms of investment, especially adding new medical devices so that the hospital continues to grow better in the long term.

In contrast to earlier studies from some study, ([McFadyen et al., 2025](#)) hospital financial performance declined during the COVID-19 pandemic, and hospital profitability declined following the pandemic. The COVID-19 pandemic had a substantial impact on hospitals' financial performance, according to our research ([Lee, 2024](#)). According to the hospital's financial performance analysis, the Covid-19 pandemic has not improved the hospital's financial performance above its pre-pandemic levels, as seen by changes in hospital financial ratios ([Rexana & Widjaja, 2023](#)). Companies operating in a demanding and competitive environment, particularly during the COVID-19 pandemic, need to monitor their financial performance. Research has shown that the COVID-19 crisis had a negative impact on business performance, and that this impact is more noticeable when a company's investment scale or sales revenue is smaller ([Valaskova et al., 2023](#)). This research founding Jakarta hospital experienced increasing financial performance after COVID-19 because management was able to take advantage of hospital facilities to become a referral for COVID-19 where the income of COVID patients was relatively high from the government supported by more direct expenses, which were lower than ordinary patients before and after covid 19.

CONCLUSION

Due to the analysis's findings, Jakarta Hospitals' financial performance following the COVID-19 pandemic has significantly improved when compared to its pre-pandemic state. The results showed that the COVID-19 pandemic had a positive impact on the financial performance of the Jakarta Hospital. The positive impact also occurs because the Indonesian government has made a policy to finance covid 19 patients during the covid 19 pandemic period. This finding can be a reference for hospital management to have made favorable policies in the face of the global health crisis. By understanding the financial dynamics that occur after a pandemic, hospital management

can optimize resources and allocate budgets more effectively to improve financial performance and maintain operational sustainability. This study provides important insights for hospital management and policymakers in formulating financial strategies that the pandemic has a favorable effect on the finances of Jakarta Hospitals, also input for management regarding investment, particularly the addition of new medical equipment to ensure the hospital's long-term growth.

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