



(Research) Article

Analysis of Hospital Budget and Operating Costs Study at Pematang Ashari Hospital

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Abstract: Covid-19 referral hospitals were studied and it was found that their operational costs had increased. However, their income had actually decreased. This was because there were not many general patients. In addition, asset utilisation was also hampered by the Covid-19 pandemic, which affected the economy. This study sought to find out whether there had been an increase or decrease due to Covid-19. The study used a quantitative method, namely calculating the effectiveness and efficiency ratios. This study uses a descriptive method. The results will be explained in detail. This study compares the conditions before and during Covid-19. The results show that effectiveness in 2019 was 114%. Then, in 2023, it rose to 128%, or an increase of 14%. Meanwhile, efficiency in 2019 was 88%. In 2023, it was 107%. This means there was a decrease of 19%. In conclusion, the budget was well prepared and very effective in 2019 and 2023. However, the use of operational costs during Covid-19 was less efficient. From being quite efficient in 2019, it became inefficient in 2023.

Keywords: Budgeting; Covid-19; Efficient; Hospital; Operational Cost.

1. Introduction

Fundamentally, hospitals operate as healthcare institutions that prioritise professional medical treatment for the community. However, the operational landscape of hospitals has transformed since the issuance of Minister of Health Regulation No. 84/Menkes/Per/II/1990. This regulation opens up opportunities for hospitals owned by foundations or legal entities to adopt a profit-oriented approach without neglecting professional ethics. As a result, hospitals are now required to balance their social mission with modern business management principles to ensure operational sustainability and effective human resource management. The Covid-19 pandemic has put significant pressure on the overall financial stability of the hospital industry (Arfati, 2024). Revenue distortions have occurred due to a drastic decline in the volume of non-Covid patient visits, with patients tending to delay treatment due to the risk of transmission. In addition, hospitals face challenges in optimising their assets; pandemic restrictions have hampered the utilisation of commercial assets, such as the leasing of business premises, resulting in the loss of potential secondary income for organisations. Dr. M Ashari Hospital was officially designated as a Covid-19 treatment hospital through Governor's Decree No. 445/46 of 2023. Based on the above image, the average number of patients treated each month is 121. The hospital provides various necessities to serve patients to the fullest extent possible. These necessities include services and equipment used in patient care (Piboari & Wahyuni, 2023). These necessities must be fulfilled through procurement. Procurement at Dr. M Ashari Hospital can be seen in the following figure:

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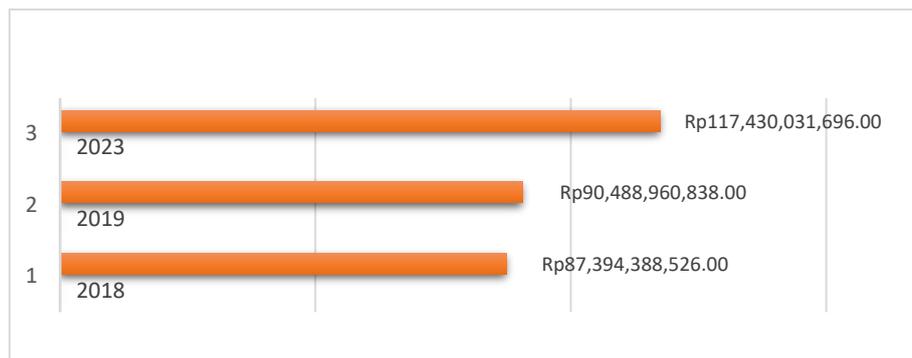


Figure 1. Procurement Hospital

The graph shows the expenditure of Dr. M. Ashari Regional General Hospital in 2018, 2019, and 2023. The years 2018 and 2019 illustrate the expenditure conditions before COVID-19, which tended to be stable as there was only a 4% increase in expenditure. Meanwhile, in 2023, which was affected by COVID-19, there was a high increase in expenditure of 30%. Assessing the process of controlling hospital activities requires a supporting information management system such as an accounting information system. An accounting information system provides structured financial information that can be used by management to make decisions and run company operations (Retnosari et al., 2022). Initially, hospitals were not intended to be profit-oriented. This changed after the issuance of Minister of Health Regulation No. 84/Menkes/Per/II/1990, which stated that hospitals owned by foundations or other legal entities could be run as businesses (profit-oriented) while still adhering to hospital and medical professional ethics. Social activities must be regulated using business management principles, as hospitals are organisations that require funds to meet service needs. In addition, they also have many employees who must be managed and paid salaries. Hospitals managed with business management have excellent services that can be used as marketing strategies, such as rooms with air conditioning, a variety of room sizes, well-equipped rooms, and VIP care (Santorry, 2025)

There have been previous studies similar to this one, such as the study conducted by (Arfati, 2024) entitled Analysis of Budget and Operational Costs at Massenreng Regional General Hospital in Enrekang Regency, which revealed effective results in the use of operational costs. The effectiveness was 98% in 2015, but decreased to 91% in 2016 and increased to 93% in 2017. Another study, such as the one by (Retnosari et al., 2022) entitled Efficiency and Effectiveness of Expenditure Budgets at Cicalengka Regional General Hospital, Bandung Regency. The findings of this study indicate that the level of efficiency of budget expenditure at Cicalengka Hospital, Bandung Regency, between 2015 and 2018 can be considered quite good, with details of efficiency in 2015 reaching 66.64%, in 2016 at 81.13%, 73.11% in 2017, and 80.33% in 2018. Meanwhile, the average level of budget effectiveness for 2015-2018 was 75.30%, which was less than effective, approaching ineffective.

2. Literature Review

Cost Analysis is conducted to obtain an accurate picture of the current financial condition. Cost analysis activities include cost tracing, which can be seen from revenue, and cost allocation, which can be seen from the costs incurred for expenses. Information on income and expenses is obtained from financial statements. From a hospital financial perspective, there are several financial ratios that can be used in financial measurement (Dau, 2023), including:

Net Profit Margin (NPM)

NPM is a calculation of net sales profit. If NPM increases, it can be said to be good; if it is consistent, it is considered fairly good; and if it decreases, it is considered poor.

Return on Investment (ROI)

ROI is a calculation of net profit on total assets. It is considered fairly good if the calculation shows an increase in ROI; if it is consistent, it is considered fairly good; and if it decreases, it is considered poor.

Efficiency Ratio

The efficiency ratio is a ratio that describes the comparison between the amount of realised income and the realised costs incurred. The efficiency ratio calculation divides the realised costs by the realised income, and the result is then multiplied by 100%. If the efficiency ratio calculation shows an increase, it is considered unfavourable. If the result shows a decrease, it is considered favourable.

Effectiveness Level

The effectiveness level is the achievement of objectives or targets by realising those objectives in full. It is calculated by dividing realised expenditure by the budget and then multiplying the result by 100%. The effectiveness ratio is considered good if, during the observation period, there is an increase that can be classified using the criteria. If there is a decrease, it is considered less favourable.

3. Research Method

The methodology covers the theory or model approach, the rationale behind the model, the algorithms for solving these models, and the methods for solving them. The theoretical basis covers the main phenomena and the development of relationships between the phenomena studied and their basic principles. This study adopts a quantitative research design with a comparative approach. The aim is to evaluate the significance of differences in financial performance before and after the pandemic. The object of comparison focuses on the Budget Realisation Report (LRA) and the 2019 Operational Report (representing pre-pandemic conditions) compared to the 2023 Financial Year (representing post-pandemic/recovery conditions) to measure the impact of external volatility on hospital budget stability.

Operating costs are costs that apply to all types of organisations, including businesses, non-profits, retail services, and manufacturing. The explanation of operating costs is provided by (Yustikasari, 2023), which defines operating costs as the use of costs for the operationalisation of capital goods in the production process (services or activities). Operating costs are divided into direct and indirect costs. Direct costs are costs directly related to patient services, reported as operating expenses. Indirect costs are costs not directly related to patient services, reported as capital expenses.

4. Results and Discussion

This study utilises data that has been collected for subsequent analysis. The data used consists of budget realisation reports and operational reports. The results of the analysis of both reports can produce a financial overview that can be used as information. The budget effectiveness analysis shows a significant positive trend. In 2019, the effectiveness rate was recorded at 114% and increased to 128% in 2023, representing a growth of 14%. This figure, which exceeds 100%, indicates that the hospital's revenue realisation has consistently exceeded the budgeted target, reflecting a highly effective revenue stream performance despite the challenges of post-pandemic recovery. The measurement of operational costs at Dr. M Ashari Regional General Hospital in 2019, the year before Covid-19, resulted in a percentage of 88% with a category of fairly efficient. In 2023, a year affected by Covid-19, the percentage was 107% with a category of inefficient. The 19% increase in percentage illustrates a decline in efficiency, meaning that the use of operational costs can be considered less than optimal.

Table 1. Regional Original Revenue Report for 2019 and 2023

Source	Revenue/Cost	2019(IDR/Rp)	2023 (IDR/Rp)	Diff (Varian)
Revenue From	General Patients	14,679,046,064	12,326,001,178	(2,353,044,886)
Revenue From	Jampersal Patients	571,776,700	3,295,538,600	2,723,761,900
Revenue From	BPJS Patients	86,813,188,872	91,310,577,863	4,497,388,991
Revenue From	Covid Patients	2,437,264,600	2,437,264,600	-
Land Rent	Canteen and Cooperative	11,576,250	12,155,062	578.812
Land Rent	ATM & Central Java Bank	13,310,000	14,641,000	1,331,000
Land Lease	BRI ATM Facilities	29,250,000	(29,250,000)	-
Land Lease	BNI ATM Facilities	25,000,000	25,000,000	-
Land Lease	PKL Kiosk Facilities	53,449,500	8,996,000	(44,453,500)
Bank Jateng	BLUD Expenditures	22,360,942	31,319,010	8,958,068

Bank Jateng	BLUD Assistant (Expenses)	6,138,386	3,023,970	(3,114,416)
Bank Jateng	BLUD Receipts	3,890,867	6,736,958	2,846,091
BRI	BLUD Expenditures	22,409,608	29,155,221	6,745,613
BNI	BLUD Expenditures	349,826,730	644,772,788	294,946,058
BNI	BLUD Receipts	3,994,051	12,929,663	8,935,612
Other Income	Other Miscellaneous	18,398,802	10,453,309	(7,945,493)
TOTAL	Grand Total	102,598,616,772	110,168,565,222	7,569,948,450

The table above shows that income from patients increased by IDR 7,305,370,605. Although there was a decrease in income from general patients amounting to Rp 2,353,044,886, there was an increase in income from Jampersal and BPJS patients amounting to Rp 7,221,150,891, as well as an increase in income for the treatment of Covid patients amounting to Rp 2,437,264,600. Rental income from the use of canteens and cooperatives, ATMs, and the Central Java Bank office increased by £1,909,812.00. There was a decrease in income from the rental of BRI ATM land, which only rented land in 2019, and the rental of BNI ATM land, which only occurred in 2023, resulting in a decrease of IDR 4,250,000. In addition, land rental income from street vendor kiosks decreased by IDR 44,453,500.00. Land rental income from 2019 to 2023 decreased by IDR 46,793,688.00.

The total income from giro services increased by IDR 319,317,026.00. Giro service income at Bank Jateng increased from 2019 to 2023 by IDR 8,689,743.00. Current account service income at Bank BRI increased by IDR 6,745,613.00. Current account service income at Bank BNI increased by IDR 303,881,670.00. Other income decreased by IDR 7,945,493. However, the explanation above shows that in 2023, there was an increase in income of IDR 7,569,948,450.00. This result was obtained from an increase in patient income of IDR 7,305,370,605.00. Land rental income decreased by IDR 46,793,688.00, giro service income increased by IDR 319,317,026.00, and other income decreased by IDR 7,945,493.00.

Good effectiveness is influenced by realistic budgeting activities based on the planning programming budgeting system and zero budgeting, where budgeting is carried out rationally by taking into account cost and benefit analysis and adjusted to goals and objectives. The parties involved in the budget preparation process are a combination of top-down and bottom-up approaches, where the preparation involves each installation/sub-installation that will be assessed by management.

Table 2. Cost Increases

Year	Result	Criteria
2019	88,20%	quite efficient
2023	106,59%	Inefficient
Average	97,72%	less efficient

Increased revenue should have resulted in excellent efficiency for hospitals, but this did not happen in 2023. Hospitals had to deal with inflated costs, and the solution was to use profits from the previous year to continue operating and providing services to Covid-19 patients as part of their responsibility as Covid-19 referral hospitals.

In contrast to revenue effectiveness, the cost efficiency ratio shows a decline in performance. The efficiency level deteriorated from 88% (sufficiently efficient category) in 2019 to 107% (inefficient category) in 2023. This ratio above 100% indicates that the growth rate of operational costs which surged by 30% due to Covid-19 treatment was faster than the growth rate of revenue. As a consequence, the hospital experienced an operating deficit for the current year, forcing management to implement a cross-subsidisation strategy using retained earnings from the previous period to maintain service continuity.

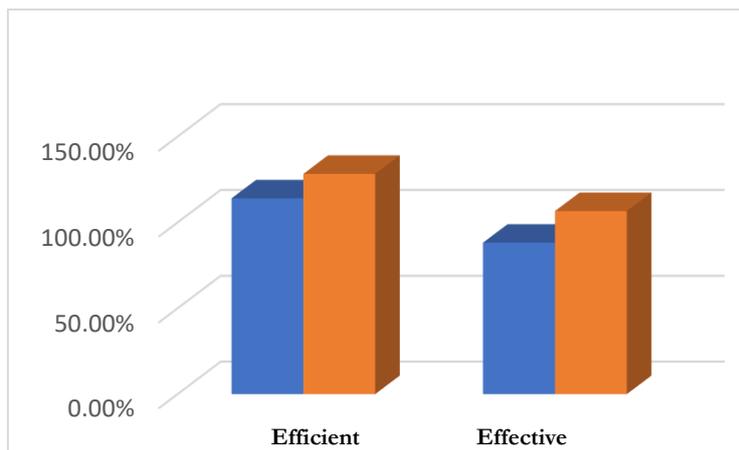


Figure 2. Measurement Results of Effectiveness and Efficiency

The calculations above in the cost realisation report use the effectiveness ratio, and the operational report calculations use the efficiency ratio for two periods, producing two values so that the difference between the two can be seen to determine whether there has been a change. Both years show that effectiveness has increased and efficiency has also increased in percentage terms.

The calculations above in the cost realisation report use the effectiveness ratio, and the operational report calculations use the efficiency ratio for two periods, which produce two values so that the difference between the two can be seen to determine whether there has been an increase or decrease. The following are the results of the measurements in both reports for the two periods:

Table 2. Measurement Results of Effectiveness and Efficiency.

Ratio	Year		Diff
	2019	2023	
Effectiveness	114,00%	128,25%	14,26%
Efficiency	88,20%	106,59%	18,39%

The calculation of effectiveness from 114% to 128% shows an increase of 14.26%. This percentage increase illustrates an improvement in effectiveness, meaning that the budgeting can be considered good. This increase is due to the hospital's budget/revenue realisation exceeding the budget, so there were no cost constraints in carrying out activities in accordance with the budget. This excess revenue can be used for savings that can be used at any time. The increase in the efficiency percentage from 88.20% to 106.59% indicates an increase of 18.39%. This increase in percentage indicates a decrease in efficiency, meaning that the use of operational costs can be considered less than optimal. This decrease in efficiency indicates that budget implementation exceeded revenue as a result of the COVID-19 pandemic, which required the hospital to provide services to patients infected with the virus.

The 2019 budget had a significant surplus, so the 2023 budget was smaller than the previous budget. This was because the budget had to meet the qualification of being realistic. The drastic decline in general patient visits did not cause revenue/budget realisation to decline from the previous year. The 2023 budget realisation was influenced by new revenue sources, namely revenue from COVID-19 patients and increased revenue from other patients, excluding general patients. In addition to the increase in patient revenue, there was also an increase in land rental and giro service revenue. The total increase in revenue amounted to IDR 7,569,948,450.

The increase in revenue should have resulted in excellent efficiency for hospitals, but this did not occur in 2023. The decline was due to an increase in all expenses, including employee expenses, goods and services expenses, and capital expenses. The total increase in expenses in 2023 was IDR 26,941,070,858.00.

The results obtained in the effectiveness calculation in this study are similar to the results of other studies. The effectiveness in this study resulted in an effectiveness of 114% in 2019 and 128% in 2023. The results of this study are similar to those of a study

conducted (Ramadia & Oktamianti, 2023) which obtained a result of 106.73%. Both studies share the commonality of having effectiveness calculation results above 100%, categorised as highly effective.

5. Comparison

The budget is part of planning. Planning is based on activities that will be carried out in business activities. The budget is divided into an operational budget and a financial budget. According (Dau, 2023), the operational budget is a budget for compiling a profit and loss statement, which contains information on income and expenses. The operational budget consists of, among other things, a sales budget, a production cost budget, a business expense budget, and an income statement budget.

The budgeted costs for Ashari Hospital from 2019 to 2023 decreased by Rp 4,101,337,000 or 2.33%. This decrease was due to the previous year's budget falling far short of actual expenditure. Actual expenditure increased by IDR 7,569,948,450 or 3.56%. The increase in actual expenditure was due to an increase in revenue. Budget realisation is the cost that will be used in operations. Although there was an increase in budget realisation, it was not proportional to the increase in direct expenditure realisation, which can be seen in the operational report expenses. In addition to the budget realisation report, the financial report obtained and used for analysis is the operational report. The operational report is examined to determine the efficiency of the use of funds from revenue for operational needs. Based on the graph above, hospital revenue increased from IDR 102,598,616,772 in 2019 to IDR 110,168,565,222 in 2023. The increase in revenue was accompanied by an increase in expenses from IDR 90,488,960,838 in 2019 to IDR 117,430,031,696 in 2023.

6. Conclusions

Based on the study entitled 'Analysis of Hospital Budgets and Operating Costs Before and During Covid-19', conclusions can be drawn based on the results of the calculations that have been carried out. The conclusions are as follows:

Based on a comparative analysis of operating costs, there was a 14.26% increase in budget effectiveness during the pandemic period. However, in terms of efficiency, the data shows a contradictory trend. The efficiency ratio in 2023 jumped to 107% compared to 2019, placing the hospital in the "inefficient" category. This percentage jump indicates that the increase in operational costs during the pandemic was not proportional to the income earned, thereby burdening the hospital's financial performance.

The operational budget of Dr. M. Ashari Hospital in Pematang Rejang Regency during Covid-19 experienced an increase in efficiency of 18.39%. This increase is based on the 2019 percentage of 88%, which is considered sufficiently efficient. Meanwhile, in 2023, the percentage was 107%, which is considered inefficient. The increase in percentage indicates that the use of operational costs during the treatment of Covid patients can be considered suboptimal.

The author's suggestions in this study are expected to be useful input for relevant and interested parties, namely hospitals, the community as service users, and future researchers who use this study as a reference. Hospitals must be able to keep up with information related to global health issues. Observing phenomena occurring in other countries that may also occur in Indonesia will enable hospitals to develop well-thought-out plans and be well-prepared to deal with unexpected situations. The budgeting activities carried out by hospitals are excellent. A suggestion that can be given is that the land owned by hospitals should be reused as it was before Covid by renting out kiosks and so on.

In addition to planning, hospitals also need to have contingency funds/emergency funds so that operations can continue and are not hampered by delays in assistance from other parties. In cost control, it is also necessary to consider the principle of cost efficiency by limiting expenditures to align with planning and cost-effective management. Future researchers are encouraged to address the shortcomings of this study. Additionally, more varied calculations could be performed to provide a detailed picture of the financial situation.

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