Analysis of the Role of Management Control Systems in Improving Effectiveness and Efficiency

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ABSTRACT: *This study aims to determine the role of the management control system in improving effectiveness and efficiency in the Lavalette Hospital cost cycle. The Lavalette Hospital Cost Cycle includes Initial Investment, Operating, Maintenance and repair, and Disposal costs. This research uses qualitative data with a case study approach. The data source used is primary data. The collection of data directly through interviews, observation, and documentation. The informants in this study were the Accounting Manager of Lavalette Hospital, Mrs. Kembang Ayu Firdausi. Based on the results of this study, the initial investment costs in strategic planning can run well. Budget preparation has savings and differences. Operational costs include implementing marketing strategies, licensing, water savings and utilization, and the OH-IH program. Maintenance and repair costs are the implementation of the use of generators. Disposal costs, namely the implementation of waste from medical activities and non-medical activities, budgeting, RKAP operating costs, maintenance and repair costs, and disposal costs, are designed together by combining the three costs.*

Penelitian ini bertujuan untuk mengetahui peran sistem pengendalian manajemen dalam meningkatkan efektivitas dan efisiensi siklus biaya Rumah Sakit Lavalette. Siklus Biaya Rumah Sakit Lavalette meliputi biaya Investasi Awal, biaya Operasional, biaya Pemeliharaan & Perbaikan, dan biaya Pembuangan. Penelitian ini menggunakan data kualitatif dengan pendekatan studi kasus. Dan sumber data yang digunakan adalah data primer. Data dikumpulkan secara langsung melalui wawancara, observasi, dan dokumentasi. Informan dalam penelitian ini adalah Accounting Manager RS Lavalette Ibu Kembang Ayu Firdausi. Berdasarkan hasil penelitian ini, biaya investasi awal pada perencanaan strategis dapat berjalan dengan baik. Dan penyusunan anggaran mempunyai penghematan dan perbedaan. Biaya operasional adalah pelaksanaan strategi pemasaran, perizinan operasional, penghematan dan pemanfaatan air, serta program OH-IH. Biaya pemeliharaan & perbaikan merupakan pelaksanaan penggunaan genset. Biaya pembuangan yaitu pelaksanaan limbah dari kegiatan medis dan kegiatan non medis. Dan penganggaran, biaya operasional RKAP, biaya pemeliharaan & perbaikan, biaya pembuangan dirancang bersama dengan menggabungkan ketiga biaya tersebut.

Keywords: *Management Systems, Increasing Effectiveness, Increasing Efficiency, Hospital Management.*

I. INTRODUCTION

Currently, business competition is growing, triggering competition in the business world to be tighter. Hospitals are required to innovate and create strategies to attract customers or patients (Munir et al., 2024). The current competition relies heavily on the quality of service, cost of care, and medical personnel contained therein. Therefore, it is necessary to control the quality of service to customers by monitoring customer satisfaction. In satisfying customers, hospitals must maximize the value of these customers by increasing benefits for customers and reducing customer sacrifices. Increased benefits while reducing sacrifices can be achieved if the hospital can innovate to operate effectively and efficiently. Companies usually guide themselves about efficiency through a good management control system (Quesado et al., 2024; Yustiara & Trihastuti, 2023).

The management control system is a series of processes used by an organization or company to monitor, evaluate, and control performance to achieve the goals and objectives set by the company and ensure that the company works efficiently and effectively (Iyobhebhe & Haruna, 2024). The management control system can be good if it can streamline costs to help the company achieve its strategic goals and objectives (Supriyono, 2020). Several stages help companies manage and control operational costs to improve the cost cycle of the management control system (Yusuf et al., 2019). Stages include budget planning, budgeting, implementation, monitoring and control, reporting, evaluation and analysis (Fikri et al., 2024). The hospital cost cycle is a process by which hospitals collect and generate revenue from health services provided to patients (Rifla & Syam, 2024). The cost cycle starts from patient admission by collecting important data such as the patient's identity, insurance, and medical records (Astuty, 2023). The cost cycle ends when the patient pays the bill or invoice issued by the hospital and records it in the Hospital Information System (SIMRS). A controlled cost cycle will help improve operational efficiency, optimize resource use, and ensure patients receive quality care without unreasonable costs (Kneifel et al., 2014). By integrating management control system analysis, Lavalette Hospital IHC can control cost utilization, reduce waste, and increase profitability (Syamsiah et al., 2024).

II. METHOD

This research uses a qualitative design. The approach used in this research is a case study, which is a qualitative approach to study, explain, or interpret a case in its natural context without outside intervention (Jiggins Colorafi & Evans, 2016). The type of research data used is qualitative data, and the primary data source is primary data (Islam, 2020). The data collection techniques of this research include documentation, interviews, and observations. The data processing process is data triangulation, data reduction, data presentation, and conclusion drawing (Ikhwan, 2021).

III. RESULT AND DISCUSSION

Management Control System

The management control system, including budget and cost control, is important in Lavalette Hospital. With a good management control system in place, Lavalette Hospital can ensure that resources are allocated effectively to achieve Lavalette Hospital's overall objectives (Priyawan, 2022). The following is the process of the management control system at Lavalette Hospital:

1. Strategic Planning

Strategic planning is done regularly. At the beginning of the semester, managers analyze what steps Lavalette Hospital will take. Lavalette Hospital management is responsible for developing strategic plans and healthcare programs that are in line with Lavalette Hospital's vision, mission, and goals (Piedra et al., 2022). The program planning process includes developing a vision and mission, developing a strategic business plan, integrating financial policies and health service programs, and communicating planning results to health workers and related parties.

2. Budget Preparation

In the preparation of the budget, a series of Lavalette Hospital budgets are prepared on the RKAP (Company Budget Work Plan) after the implementation of the work program. The Lavalette Hospital budget is set according to the cost requirements for the program to be implemented and will be reviewed directly by each supervisor and manager representative (Hassan et al., 2019). The manager will be in control and responsible for the budget issued by Lavalette Hospital. In the RKAP (Company Budget Work Plan), manual control is carried out by daily control at the level of the coordinator, assistant manager, and the relevant manager.

3. Implementation

Each department within Lavalette Hospital will begin to communicate and put into practice the strategic plan that has been created and approved in the work meeting. Employees will use the work program as a guide to ensure they achieve the desired results by the end of the working day. Implement Lavalette Hospital's work program and manage its costs to ensure Lavalette Hospital's work program can run effectively and efficiently.

4. Performance Evaluation

Lavalette Hospital's performance results are evaluated using performance accountability reports from each employee. Recapitulate and analyze Lavalette Hospital's performance data, such as human resource management and community satisfaction (Dahlan, 2021).

Lavalette Hospital Cost Cycle

Lavalette Hospital's cost cycle includes costs associated with day-to-day operations. By knowing the initial investment, operating, maintenance, repair, and disposal costs, Lavalette Hospital can manage resources more effectively, improve efficiency, and ensure the availability of adequate funds to support quality healthcare services. Lavalette Hospital's cost cycle starts with patient admission, where important data such as identity, insurance, and medical records are collected. The cost cycle ends when the patient pays the bill or invoice from Lavalette Hospital and records it on the hospital information system (SIMRS). The cost cycle consists of initial investment, operational, maintenance, repair,

and disposal costs so far, which are still following the Company's Budget Work Plan (RKAP) Year 2022.

Initial Investment Costs

For the investment to be right on target, it is necessary to select the right asset. The management control system at Lavalette Hospital makes initial investment costs with strategic planning and budgeting. Every investment must be based on a feasibility point (Zhou & Wang, 2024). This feasibility point is part of the strategic plan and budget preparation so that the management control system helps Lavalette Hospital ensure that initial investment costs are properly managed to increase effectiveness and efficiency in managing Lavalette Hospital costs (Adhani, 2018). Manual control is still used in preparing the budget by referring to the Company's Budget Work Plan (RKAP) Year 2022. The following is a comparison of the RKAP and the Realization of Initial Investment Costs as follows:

Table 1. Comparison of RKAP and realization initial investment costs

Account Name	RKAP	Costs incurred	Cost difference
ESWL machine	4.878.378.378	5.376.000.000	(497.621.622)
Brachytherapy Service Building	5.000.000.000	4.826.792.000	173.208.000
Dental X-Ray	200.000.000	220.000.000	(20.000.000)
Infant Inkubator	52.936.036	58.759.000	(5.822.964)
AMOUNT	10.131.314.414	10.481.551.000	(350.236.586)

Based on Table 1, the ESWL machine cost incurred of Rp 5,376,000,000 is greater than the RKAP of Rp 4,878,378,378, so there is a difference of Rp 497,621,622. This is due to the ESWL licensing fee and the increase in specification prices. The ESWL (Extracorporeal Shock Wave Lithotripsy) service or Kidney Center is one of Lavalette Hospital's centres of excellence. The high number of cases of kidney failure has increased the demand for services to treat patients with kidney failure in hospitals. In Malang City, all hospitals with hemodialysis service units are always full. They can even refuse patients because the number continues to grow. This fact encourages Lavalette Hospital to open a hemodialysis service unit to serve patients with kidney failure who have not received services due to limited hemodialysis service facilities.

Second, the cost of the Brachytherapy Service Building incurred was IDR 4,826,792,000, and the designed RKAP was IDR 5,000,000,000, so there was a RKAP savings of IDR 173,208,000. This is because there is a permit fee for constructing the brachytherapy building and a decrease in the specifications price. The radiotherapy facility or cancer centre is one of Lavalette Hospital's centres of excellence. Brachytherapy has become an effective treatment for many types of cancer. It is a common treatment modality in most radiotherapy clinics, with limited radiotherapy facilities owned by private hospitals in East Java. In contrast, around 60% of cancer patients require radiation therapy during the disease. Lavalette Hospital can help the Greater Malang Community and surrounding areas by providing important treatment facilities for cancer.

Third, the Dental X-Ray cost incurred of Rp 220,000,000 is greater than the RKAP of Rp 200,000,000, so there is a difference of Rp 20,000,000. This is because there is a dental X-

ray licensing fee and an increase in the price of the specifications. Dental X-Ray is a medical device that assists Lavalette Hospital dentists in finding problems in the teeth, mouth, and jaw.

Fourth, the cost of the Infant Incubator incurred of Rp 58,759,000 is greater than the RKAP of Rp 52,936,036, so there is a difference of Rp 5,822,964. This is due to the Infant Incubator licensing fee and the increase in specification prices. The NICU (Neonatal Intensive Care Unit) service is one of Lavalette Hospital's centres of excellence. The NICU (Neonatal Intensive Care Unit) is an intensive care unit for infants up to 28 days old and children who require specialized treatment and care to prevent and treat the failure of vital organs. The NICU at Lavalette Hospital treats around 200-200 patients annually.

Initial investment costs in strategic planning can run well with the preparation of the ESWL (Extracorporeal Shock Wave Lithotripsy) or Kidney Center Service program contained in the ESWL machine, radiotherapy facilities or cancer centres in the construction of Brachytherapy, dental X-Ray to help Lavalette Hospital dentists, and NICU (Neonatal Intensive Care Unit) services in the Infant Incubator. In the preparation of the budget, there are savings in the construction of brachytherapy Rp 173,208,000, and there is a difference in the ESWL machine Rp 497,621,622, Dental X-Ray Rp 20,000,000, and Infant incubator Rp 5,822,964.

Operation Costs

In Operating Expenses, the management control system controls using Lavalette Hospital's resources. It starts by ensuring that all resources owned are used appropriately, optimizing resource use, and reducing resource consumption. With the implementation and preparation of budgets, the management control system helps Lavalette Hospital ensure that operating costs are well managed to increase effectiveness and efficiency in managing Lavalette Hospital costs (Darya, 2019). Manual control is still used in preparing the budget by referencing the Company's Budget Work Plan (RKAP) Year 2022. The following is a comparison of the RKAP and the realization of Operating costs, Maintenance and repair costs, and Disposal costs:

Table 2. Comparison of RKAP and realization of operating costs, maintenance & repair costs, and disposal costs

Account Name	RKAP	Costs incurred	Cost difference
Operation Costs			
Marketing and signage		140.245.545	
Licensing		25.450.000	
Water retribution		125.800	
Occupational Safety Health (K3)		21.646.664	
Other		9.379.033	
Maintenance & Repair Costs			
Building and building maintenance costs		-	
Machinery and installation maintenance costs		2.953.293.288	

Disposal Costs			
Sewage Installation		624.550.240	
AMOUNT	5.817.000.000	3.774.690.570	2.042.309.430

Based on Table 2, a good marketing strategy is needed to maintain hospital operations. With a good marketing strategy, it can increase patient target achievement, increase patient visits, and increase patient loyalty. However, in implementing a good marketing strategy, Lavalette Hospital also incurs high costs of Rp 140,245,545.

Lavalette Hospital licensing includes a building permit submitted by the hospital owner and an operational permit submitted by the hospital manager by statutory regulations.

Water retribution is a fee that the owner of the leadership company must charge for the use of water taken from groundwater or surface water sources. This water levy fee consists of water savings and water utilization. Lavalette Hospital has made water savings by installing an automatic sink so that when not in use, the sink stops automatically and does not release water continuously. Lavalette Hospital's water utilization is that the residual water from reverse osmosis processing is used for flushing plants, and clean water flows into each pipe to the room.

Regarding occupational health and safety, Lavalette Hospital has conducted the OH-IH Occupational Health & Industrial Hygiene program, which is an integrated health service program where the main focus of this service is the occupational health and safety aspect, which has an important role in supporting the needs of providing a healthy workforce. OH-IH services aim to minimize the incidence of Occupational Diseases (PAK) and work accidents. Occupational health and safety (OHS) includes occupational health education, ambulance medical check-ups, PJK3-Ministry of Manpower training, and mobile medical check-ups.

Other costs found at Lavalette Hospital are office equipment costs. Lavalette Hospital office equipment is needed to support various administrative and managerial activities at the hospital, such as tables and chairs needed for staff workspaces.

Budgeting on marketing and billboard costs, licensing, water levies, occupational health and others, the total costs incurred amounted to Rp 140,245,545, while the RKAP prepared was made together with maintenance and repair costs and disposal costs. RKAP (Company Budget Work Plan) should be prepared based on groupings, namely operating, maintenance, repair, and disposal costs, to clarify the basis for expenditure.

Maintenance & Repair Costs

The management control system guides Lavalette Hospital's maintenance and repair costs to improve effectiveness and efficiency by looking at implementation and budgeting. Based on Table 4.7, in the maintenance and repair costs, maintenance costs for machinery and installations amount to Rp. 2,953,293,288. This can be seen from the use of assets at Lavalette Hospital. There is the use of generators, namely cyclone and scrubber generators, which are included with generators, and their use is only 30 minutes/week for heating because we already have supply from two PLN reinforcements. Thus, if one PLN is experiencing trouble, Lavalette Hospital will use the other PLN if the two PLNs cannot use

or operate the generator. So, the fuel used for the Lavalette Hospital generator is also not so much because it is only used during warm-up.

The budget preparation for the maintenance cost of Machinery and Installation amounted to Rp 2,953,293,288. In contrast, the RKAP on maintenance and repair costs was designed together with the operating and disposal costs in Table 4.3. The preparation of the RKAP (Company Budget Work Plan) should be arranged based on groupings, namely operating costs, maintenance and repair costs, and disposal costs, to clarify the basis for expenditure.

Disposal Costs

The management control system guides Lavalette Hospital's disposal costs to improve effectiveness and efficiency by examining budgeting, implementation and reporting. In the preparation of the budget for waste installation costs of Rp. 624,550,240, while the RKAP on disposal costs is designed together with operating costs and maintenance and repair costs in Table 4.3. The preparation of the RKAP (Company Budget Work Plan) should be arranged based on groupings, namely operating costs, maintenance and repair costs, and disposal costs, to clarify the basis for expenditure. Waste is generated at Lavalette Hospital from medical and non-medical activities. Clinical waste that is infectious and has chemical and biological content is the main waste of healthcare facilities. In addition, Lavalette Hospital also generates solid B3 waste as well as non-B3 waste (including domestic waste). Lavalette Hospital annually reports its waste management activities to PT Pertamina Bina Medika, the parent company, and the central, provincial, and municipal governments.

IV. CONCLUSION

Based on research at Lavalette Hospital, management control systems play an essential role in increasing the effectiveness and efficiency of the cost cycle. In strategic planning, initial investments such as the ESWL program, radiotherapy facilities and NICU work well. The budget preparation shows savings in brachytherapy construction of IDR 173,208,000 and a difference in ESWL machines, Dental X-rays and Baby Incubators. Operational costs include marketing strategies and permits and saving and utilizing water. The RKAP budget includes operational costs, maintenance, repairs and waste disposal. The hospital reports waste management regularly to PT Pertamina Bina Medika and the government.

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