

Implementation of Activity-Based Costing on Inpatient Care Rates at the Regional General Hospital of West Muna Regency

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Abstract

This study aims to determine the Application of Activity Based Costing at Inpatient Service Rates at the Regional Public Hospital in West Muna Regency. Sources of data used are primary data and secondary data. Methods of data collection using interviews, literature study, and documentation. The analytical method in this study is a comparative analysis method that presents and compares the method of determining hospital service costs that have been implemented by hospitals using Activity Based Costing (ABC). The results of the study show that inpatient service rates with an Activity Based Costing approach provide results that are by the activities charged. From the results of calculating inpatient service rates using the Activity Costing method when compared to the current inpatient rates at West Muna Hospital, the ABC method provides more expensive results. The difference that occurs between the rates of inpatient services that apply in this hospital and the ABC method, is caused by the imposition of overhead costs on each product.

Keywords: *Activity Based Costing, Regional General Hospital, Service Rates.*

INTRODUCTION

In an era of globalization driven by rapid business development, competition in the business world is becoming fiercer, not only for newly established companies but also for established companies. In facing this challenge, competent management is needed to anticipate competition and run the company efficiently in the manufacturing, industrial, and service sectors, such as hospitals. Hospitals, as non-profit organizations, play a unique role involving aspects of business and social values. Law No. 44 (2009) regulates hospital operations based on the principles of Pancasila, human values, ethics, and professionalism while considering social factors. The hospital's primary focus is on providing medical, nursing, and health services, with the main revenue coming from inpatient services, which include the cost of inpatient rates and professional services. Decisions in determining hospitalization rates have a significant impact on hospital profitability, especially regarding the variety of facilities offered and the indirect costs involved in this process.

The determination of rates in hospital operations is an important factor regulated by the Regulation of the Minister of Health of the Republic of Indonesia, Number 85 of 2015. These rates are calculated considering various components of unit cost and local considerations while upholding the principles of fairness and fair competition. Accurate cost information is becoming increasingly important in the

context of intense competition, and many managers and management accountants want to develop activity-based costing systems. The activity-based costing approach is used to allocate resource costs to various cost objects such as products, services, or customers (Kholmi and Yuningsih, 2004).

Activity-Based Costing (ABC) is a Costing method that focuses on activities within a company. ABC identifies the sources of costs derived from the activities that contribute to a company's costs. Unlike traditional systems, ABC uses more cost factors to calculate product costs, provides accurate information, enables better cost control, and tracks the origin of the costs. By focusing on activities that add value, ABC allows managers to reduce costs while improving service quality.

The Regional General Hospital (RSUD) of West Muna Regency is a type D health facility that provides services to residents in West Muna Regency, as well as to those who come from outside the area. This hospital is the object of research because the West Muna Regency is a newly established autonomous region, so it is important to maintain effectiveness and efficiency in health services to build public trust.

The determination of inpatient rates at West Muna Regional Hospital is regulated by West Muna Regent Regulation Number 194/A of 2015 concerning Health Service Retribution. This Regent Regulation outlines all service standards that apply to all hospitals, including West Muna District Hospital. The following

graph shows the number of rooms and inpatient rates applicable to the RSUD West Muna Regency.

West Muna Regency uses the unit cost method to calculate inpatient room rates with separate calculations for each type of class. The use of an activity-based costing system to determine inpatient service rates provides more accurate information than conventional cost-accounting systems. This resulted in significant tariff differences between the two methods, as found in the research by Kurniyawati and Anjani (2019) and Fadhila and Maramis (2020). This difference is due to the use of Activity Costing, which allows a more precise allocation of activity costs to each room based on the use of the activity that occurs.

Activity-based costing (ABC) focuses on identifying the costs associated with a product based on the activities required to manufacture, perform maintenance, distribute, or support that product. The ABC method is considered to provide a more precise cost breakdown because many cost drivers are used to allocate overhead costs. This allows the ABC method to produce more accurate cost allocation. Therefore, this study is titled "Application of Activity Based Costing (ABC) on Inpatient Service Rates of West Muna Regency General Hospital" to investigate the application of the ABC method in determining inpatient service rates at West Muna District Hospital, considering the potential to improve the accuracy of cost allocation.

LITERATURE REVIEW

Cost Accounting

Cost accounting is a subfield that focuses on reporting historical cost information. This includes management and financial accounting, which consider the collection and analysis of cost information (Kartikahadi et al., 2016). Within the framework of Mulyadi's (2016) concept, cost accounting involves recording, classifying, summarizing, and making statements regarding costs associated with the production and sale of products or services. This is accomplished using certain process methods that involve cycles from the beginning of production until the product is ready for sale. According to Surjadi (2013), the cost accounting cycle includes recording, classifying, combining, and presenting costs ranging from raw materials to finished products.

Siregar et al. (2014) explained that cost accounting is a process that involves measuring,

summarizing, analyzing, calculating, and reporting costs, profitability, and operational performance, which aims to meet the internal needs of the company.

The main objectives of cost accounting were Mulyadi (2016):

Product Cost Determination

Find the amount of money required to make a product or provide a service. This helps in planning and recording the costs.

Cost Control

Allows the company to control costs by knowing the costs incurred during the production process.

Special Decision Making

Support specific decision-making related to production activities such as product pricing or the use of specific resources.

Conventional Cost System

The traditional costing system is an accounting approach that focuses on measuring costs based on production volume. The system assumes that all costs can be divided into fixed and variable costs, with the amount of product produced considered as the determining factor of cost. In practice, direct material and labor costs are directly identified through direct traceability, whereas overhead costs run through two stages: incorporation of overhead costs in batches and use of unit-level drivers to assign overhead to products (Hansen and Mowen, 2006).

Traditional cost accounting systems can be classified into two types: accrual or historical costs and standard costs. Cost accrual collects cost information when costs occur, but the results are presented only after a specific production operation is completed. Standard costing involves planning based on the resources planned to be used and the planned prices for those resources (Carter, 2009).

Despite their usefulness, traditional costing systems have some limitations, including a focus on production costs, the use of unit-based activity factors, and a lack of relevance in complex business environments. Therefore, modern organizations often look for alternatives such as the Activity-Based Costing (ABC) system, which is more relevant and flexible in managing costs and strategic decision-making (Islahuzzaman, 2011). ABC enables a more accurate identification of activity factors affecting production costs, enables more effective cost control, and increases the understanding of more accurate allocation of overhead costs (Hansen and Mowen,

2006). In an era of fickle business, more adaptive costing systems such as ABC are becoming increasingly relevant in modern cost accounting.

Activity-Based Costing

Activity-Based Costing (ABC) is an approach to costing that focuses on the activities involved in the production process. It addresses the calculation of product costs by identifying the activities involved in production and determining the extent to which a product absorbs these activities during the production process (Salman, 2016). Mulyadi (2016) also explains that ABC involves the allocation of resources to each activity used to produce products.

The ABC system centers on the activities required to produce a product or service. The information provided by ABC includes the activities and resources required to execute an event or transaction that trigger costs, which act as contributing factors to costs in an organization. In this system, activities become the point of combining costs, with costs tracked to activities and then allocated to products (Rudianto, 2013). The ABC system assumes that the activity consumes resources and not products.

The design of the ABC system focuses on the activities performed by the workforce and equipment to meet customer needs. An activity is considered to be something that uses a company's resources. This system understands that it is the activity that generates the cost, not the product itself (Mulyadi 2016). The two main assumptions underlying this system are that actions incur costs and that customers of a product or service create demand based on the activities necessary to produce that product or service (Rudianto, 2013).

Implementation of an ABC system requires several conditions. A high level of diversity is needed in a company with high industry competition and low measurement costs (Mulyadi, 2016). In addition, two basic requirements must be met before the ABC system can be implemented: non-unit-based costs must be significant in overhead costs, and consumption rates between unit-based and non-unit-based activities must be different (Rudianto, 2013).

In the ABC system, product overhead and billing use two stages, similar to the traditional costing system. First, costs are collected in pools that have similar activities. Then, costs are allocated from the cost center to the product using the appropriate cost drivers (Mulyadi, 2016). This requires an understanding of what triggers costs (the event that triggers the cost), the

level of consumption between activities, and homogeneous cost groups (groups of overhead costs in which cost variation is associated with only one cost cause) (Rudianto, 2013).

The ABC system provides several benefits, including the ability to make better decisions, provide more reasonable quotes, analyze volume costs more accurately, and initiate a redesign of manufacturing processes to achieve higher efficiency (Mulyadi, 2016).

The ABC method has various advantages, including assisting in decision-making, allowing management to make more competitive bids, and facilitating better cost analysis for low-volume products (Mulyadi, 2016).

Hospital Accounting

Hospitals play an important role in the health sector by providing holistic services, disease healing, and disease prevention to the community (Priantara 2020). Hospitals need a dedicated accounting system to manage their operations efficiently and ensure sustainability.

Hospital accounting is a system that accumulates, communicates, and interprets historical economic data and projections to ascertain a hospital's financial position and operating results (Priantara, 2020). This accounting serves as a source of information needed for decision-making in problem-solving and hospital development planning (Nowicki, 2006).

Business Results Report

It includes income from business activities, such as medical and health services, as well as other income, such as parking and other services. Recorded expenses are directly related to earnings in a certain period.

Balance sheet

Shows the financial condition of the hospital as of a certain date, with the main components consisting of assets, liabilities, and capital. The assets include current assets, marketable securities, receivables, inventories, investments, fixed assets, and intangible assets. Liabilities include current and non-current debts. Capital is the residual right to assets after deducting the liabilities.

Cash Flow Statement

It contains information about cash inflows and outflows during a specific period of operating, investing, and financing activities. This includes receiving and disbursing cash from customers, interest in deposits, buying and selling fixed assets, loans, capital, dividends, etc..

Hospital accounting plays an important role in decision-making, planning, and development. Accounting assists hospital management in managing operations and financial planning by generating accurate information about costs and financial positions. Accounting also allows hospitals to monitor their financial performance and respond to challenges in the rapidly changing healthcare industry (Nowicki 2006).

To face competition in the competitive health market, hospital accounting has become a vital tool in managing costs, optimizing revenues, and improving the quality of medical services (Nowicki, 2006). By understanding the cost components and identifying cost-triggering activities, hospitals can take steps to improve their operational efficiency and effectiveness.

Thus, hospital accounting is not only about recording financial transactions but also about resource management and smart decision-making to ensure quality and sustainable health services for the community (Nowicki, 2006).

METHODS

This research was conducted at the Regional General Hospital of West Muna Regency, located in the Bumi Praja Laworo Office Complex, Lombujaya Village, Saweligadi District, West Muna Regency, for 6 months from February 2022 to August 2022.

The data used in this study were divided into two types: qualitative and quantitative. Qualitative data included oral or written information about the general description of the hospital, hospital procedures, and organizational structure. Quantitative data included figures such as patient number reports and related cost reports.

Data sources consisted of primary data obtained through interviews with research subjects and field observations, as well as secondary data such as profiles of West Muna District Hospital and other supporting documents.

Data collection was carried out through various techniques, namely interviews to obtain information related to medical services and hospitalization cost policies, literature studies for theoretical understanding, and documentation to record data related to room rates, length of stay, and medical service costs.

Data analysis was performed using a comparative analysis method, comparing the method of determining the cost of hospital services that have been applied by the hospital using activity-based costing (ABC). The analysis phase includes a comparison between rates and realization of hospitalization costs based on both methods.

RESULTS AND DISCUSSION

Based on the results of a study conducted at West Muna Hospital, the hospital determined the rate of inpatient services using the unit cost method. The cost per class is based on the unit cost, namely for VIP IDR 185,000, Class I IDR 117,000, Class II IDR 80,000, and Class III IDR 55,000. Hospitals should consider market price research (competitive rates) and community social conditions when determining rates. Hospitals must consider the economic strengths of their people. The calculation for determining the rate of inpatient services is performed by adding fixed costs and variable costs divided by the number of days of hospitalization.

To determine costs, West Muna Hospital categorizes costs into two types:

Fixed costs

Fixed costs include administrative, building depreciation, and equipment depreciation costs.

Variable costs

Variable costs are the costs of consumables or hospital operational units required to carry out production activities within a relatively short period. Costs that include Variable costs include maintenance, consumption, electricity, water, laundry, and cleaning bills.

Based on research conducted at the West Muna Regional Public Sakir House, the hospital provides Class III services to the community. This is because the West Muna Regional General Hospital is still relatively new after separating itself from the Muna Regency Administration. This is as stated by Hospital Director Dr. H. M. Syahril Fitrah in an interview, who stated;

The facilities available to serve the community were provided by the hospital as Class III. This is because the building construction process for all classes has not been completed. This hospital is relatively new after separating itself from the Muna Regency administration.

Based on information obtained from hospital management, activity-based costing was calculated only for Class III. Based on the calculation results of inpatient service rates using activity-based costing, the results were obtained as class III Rp178,351.68. Therefore, in the comparison of inpatient service rates using the unit cost method with the ABC method, it can be seen that using the activity-based costing method provides more expensive results than the unit cost method.

The activity-based costing system is a cost accounting system consisting of two stages: first, tracking costs of various activities and then of various products. According to Mulyadi (2016), activity-based cost calculation is a careful determination of the product cost for management decisions by carefully measuring the resource consumption in each activity used to produce products/services. The results showed that the calculation of inpatient service rates with the activity-based costing system at West Muna Hospital allocated costs based on activities in the inpatient unit. Each activity has a cost driver that triggers each cost incurred.

The benefit of calculating inpatient service rates using the Activity Costing System method at West Muna Hospital is that it presents more accurate inpatient service costs so that they can set better inpatient prices. In addition, the costs in the inpatient unit are more detailed in the calculation of rates. This can assist management in making decisions regarding inpatient service rates. These benefits refer to the opinion of Garisson et al. (2006), who propose a cost calculation method designed to provide cost information for managers for strategic decisions and other decisions that will affect capacity and fixed costs. Thus, the activity-based costing method is a cost accounting system that supplies correct product cost information, so that the information can be used as a reliable basis for deciding product/service selling price policies.

CONCLUSION

Based on the results of the research analysis conducted on inpatient service rates at West Muna Hospital, the following conclusions were drawn:

West Muna Hospital in determining inpatient service rates using the unit cost method. The consideration of the hospital using the unit cost method

is the social condition of the community, where the hospital must consider the economic ability of the public, which is the basis for calculating the rate of inpatient services at West Muna Hospital. Hospitalization rates/fees that have been used during 2020 are for VIP IDR 185,000, class I IDR 117,000, class II IDR 80,000, and class III IDR 55,000.

The calculation of inpatient service rates using the activity-based costing approach supplies results in charged activities. The rate for class III inpatient services, calculated using the ABC method, was Rp178,351.68. From the calculation of inpatient service rates using the Activity Costing method when compared to the current inpatient rates at West Muna Hospital, the ABC method provides more expensive results, with a difference of Rp. 123,351.93. The difference between the applicable inpatient service rates at this hospital and the ABC method was due to the imposition of overhead costs on each product. In traditional cost accounting methods, overhead costs for each product are charged to only one cost driver. Thus, there is a distortion in the charging overhead costs. In the ABC method, the overhead cost for each product is charged to the number of cost drivers. Therefore, in the ABC method, we can distribute the activity costs to each room appropriately based on the consumption of each activity.

REFERENCES

- Ahmad, Paradise of the World, and Wasilah Abdullah. (2012). *Cost Accounting*. Jakarta: Salemba Empat.
- Budiman Riadi. (2012). Implementation of the activity-based costing system method in determining inpatient rates. *Elkha Journal*, 9 (2).
- Bustami Bastian, and Nurlela. (2009). *Cost Accounting, Through a Managerial Approach*, first edition, Publisher: Mitra Wacana Media, Jakarta.
- Carter, William K. (2009). *Cost Accounting*. Issue 14. Salemba Empat. Jakarta.
- Garrison. R. H. & E. W. Noreen. (2000). *Managerial Accounting* (Ninth edition). McGraw-Hill Company Inc.
- Hansen and Mowen. (2009). *Managerial Accounting*, Book 1 Issue 8. Jakarta: Salemba Empat



- Horngren, Charles T., Srikant M. Datar, and George Foster. (2008). *Cost Accounting: A Managerial Emphasis*. The first book, eleventh edition. (Translated by: Desi Adhariani). Index. Jakarta
- Islahuzzaman. (2011). *Activity-Based Costing Theory and Applications*. Alfabeta, Bandung.
- Kholmi, Masiyah, & Yuningsih. (2004). *Cost Accounting*. University of Muhammadiyah Malang. Hapless.
- Law Number 23 of 1992 concerning Health.
- Law Number 44 of 2009 dated October 28, 2009, concerning Hospitals.
- Mulyadi. (2011). *Hospital Accounting*, Five Editions. Health Administration Press.
- Mulyadi. (2016). *Accounting Information Systems*. Jakarta: Salemba Empat.
- Riwayadi. (2014). *Cost accounting traditional and contemporary approaches*. Jakarta: Salemba Empat.
- Siregar, Baldric, Bambang Suripto, Dody Hapsoro, Eko Widodo Lo, Erlina Herowati, Lita Kusumasari, and Nurofik. (2014). *Management Accounting*. Jakarta: Salemba Empat.
- Sugiyono. (2017). *Quantitative, Qualitative, and R&D Research Methods*. Bandung: Alfabeta, CV.
- Sugiyono. (2018). *Quantitative Research Methods*. Bandung: Alfabeta
- Sumilat, Zinia Th. A. (2013). Determination of cost of old goods for rooms using activity-based costing at RSU Pancaran Kasih GMIM. Sam Ratulangi University, Manado. *Journal E MBA*, 1 (3), 454-464.
- Suwardjono. (2014). *Engineering Accounting Theory of Financial Reporting*. Yogyakarta: BPFE.