



# Analysis of Activity-Based Costing (ABC) Implementation for Inpatient Operational Cost Control in 2025

Ongky Harianto <sup>1\*</sup>, Ermi Girsang <sup>2</sup>, Sri Lestari Ramadhani Nasution <sup>3</sup>

<sup>1</sup> Postgraduate Program in Public Health, Universitas Prima Indonesia, Medan,  
Indonesia

<sup>2,3</sup> Department of Public Health, Universitas Prima Indonesia, Medan, Indonesia

<sup>2,3</sup> COE for Degenerative Disorders and Integrated Health, Universitas Prima  
Indonesia, Medan, Indonesia

Email coresponding : [ermigirsang@unprimdn.ac.id](mailto:ermigirsang@unprimdn.ac.id)

## Article History :

Received date : 2026/01/12

Revised date : 2026/02/19

Accepted date : 2026/03/27

Published date : 2026/04/09



**Copyright:** © 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (BY NC) license (<https://creativecommons.org/licenses/by-nc/4.0/>).

E-ISSN :

ISSN 3048-1368



P-ISSN

ISSN 3048-1376



## ABSTRACT

**Background:** Hospitals require accurate cost information to set service tariffs, prepare budgets, and control operational costs. At RS Pratama Krayan, inpatient tariff determination may still create cost distortion because it has not fully applied an activity-based approach.

**Objective:** This study aimed to analyze the implementation of *Activity Based Costing* (ABC) in controlling inpatient operational costs at RS Pratama Krayan, North Kalimantan, in 2025.

**Method:** This study employed a quantitative descriptive method with a case study approach. Data were collected through documentation and interviews, then analyzed using ABC procedures, including activity identification, cost pooling, *cost driver* determination, activity rate calculation, and cost allocation to each inpatient class to obtain the *unit cost*.

**Results:** The findings identified nine major cost activities with a total inpatient operational cost of IDR 2,744,000,000. Activity rates were calculated using inpatient days, room area, and electricity consumption as *cost drivers*. ABC calculation produced inpatient *unit costs* per day of IDR 179,494 for VIP, IDR 107,782 for Class I, IDR 88,608 for Class II, and IDR 86,881 for Class III. All values were lower than the existing tariffs, with reductions of 48.7% for VIP, 46.1% for Class I, 50.8% for Class II, and 42.1% for Class III.

**Conclusion:** The implementation of ABC provides more detailed, proportional, and transparent inpatient cost information and can serve as a basis for tariff evaluation and hospital operational cost control.

**Keywords:** *Activity Based Costing; cost driver; inpatient care; operational cost; service tariff.*

---

## INTRODUCTION

---

Globalization has placed new pressures on the hospital sector, particularly in terms of public demand for higher quality healthcare services alongside advances in science and technology and the increasing complexity of health problems. Improving the quality of health services also aligns with the government's agenda to achieve national development goals through improved healthcare service quality.<sup>1</sup> Hospitals as non-profit organizations play a role in providing treatment, care, and health services to the community, yet they still require revenue from services such as inpatient care, physician fees, and other health facilities to maintain operational sustainability.<sup>2</sup> In the context of government hospitals, operational cost management and service tariff determination are also influenced by regulations, including the Minister of Health of the Republic of Indonesia Regulation Number 85 of 2015, which establishes a national tariff structure based on service type and class of care while considering regional conditions.<sup>3</sup> Consequently, the availability of accurate cost information becomes crucial so that management can assess tariff adequacy, prepare budgets, and control costs effectively.

Hospitals require a cost accounting system and costing method capable of presenting reliable service cost information as a basis for decision-making.<sup>4</sup> *Activity Based Costing* (ABC) is an approach that traces costs based on activities that consume resources, so that cost allocation does not rely solely on a single cost driver such as labor hours, but rather on the activities that truly drive costs.<sup>5</sup> In the hospital context, calculating the cost of goods sold aims to comprehensively determine the costs incurred to provide services so that the established tariffs more closely reflect actual costs.<sup>6</sup> The impetus to shift from conventional costing systems has also strengthened because traditional systems are often considered inadequate in explaining increasingly complex resource consumption, thus managers require a more realistic activity-based method.<sup>7</sup>

Several previous studies have demonstrated the benefits of ABC in calculating inpatient costs but have also indicated issues of differing costs across service classes. Asmadi et al.<sup>8</sup> found that in certain classes, cost allocation could cover overhead costs, whereas in other classes, the

prevailing tariffs did not cover operational costs, potentially leading to losses, while also confirming that ABC results are not always cheaper but are better compared to traditional methods. Payu9 showed that ABC could be used to compare inpatient tariffs set by the government and estimate the amount of subsidy for each class. These findings confirm that ABC can reveal cost allocation distortions in conventional systems and produce more accurate information for management decisions. However, previous studies have tended to focus on comparing unit costs and tariff adequacy, while aspects of operational cost control through activity mapping, *cost driver* determination, and identification of *non-value added activities* as a basis for efficiency improvements have not always been the main focus. Furthermore, the context of a Type D Primary Hospital in a border region with limited resources and very low inpatient utilization rates has rarely been studied, thus requiring more specific studies to strengthen evidence of ABC implementation under different operational conditions.

This gap is relevant to the conditions of RS Pratama Krayan, a Type D public hospital managed by the Nunukan Regency Government that has not yet achieved Regional Public Service Agency (BLUD) status, with services including Maternal and Child Health (MCH) and Family Planning (FP). Internal data for 2024 shows low inpatient utilization, indicated by a *Bed Occupancy Rate* (BOR) of 21.4% and an *Average Length of Stay* (AVLOS) recorded as 0 days, as well as human resource limitations that could potentially increase the fixed cost burden per patient when patient volumes are low. On the other hand, inpatient tariff determination has thus far relied more on regulations without in-depth analysis of actual costs per service activity, so that conventional methods risk causing cost information distortion in the form of *undercosting* or *overcosting* which can hinder operational cost control and service efficiency decisions. Thus, the problem statement of this study is the absence of a comprehensive activity-based inpatient costing system at RS Pratama Krayan, and the need for empirical proof that ABC can be used not only to calculate unit costs but also as an instrument for operational cost control at a Primary Hospital in a resource-limited region.

Based on this background, the research question of this study is how ABC is implemented to control inpatient operational costs at RS Pratama Krayan, North Kalimantan, in 2025. This study aims to analyze the structure of inpatient operational costs, identify cost-related activities, classify

and calculate activity-based costs using ABC, determine appropriate *cost drivers* for each activity, calculate inpatient unit costs and compare them with traditional methods, identify *non-value added activities*, and estimate the potential for operational cost efficiency through ABC implementation, so that the results are expected to support more accurate, transparent, and reliable cost control for management.

---

## METHODS

---

This study used a quantitative descriptive method with a case study approach to analyze the implementation of ABC in controlling inpatient operational costs at RS Pratama Krayan, North Kalimantan. The quantitative approach was applied through the collection of numerical cost and activity data, calculation of activity rates, and measurement of cost efficiency using measurable formulas, while the case study was used to obtain an in-depth understanding of the hospital's specific conditions according to the case study framework. The research was conducted at RS Pratama Krayan, Jalan Lingkar Krayan, Pa' Mering Village RT 001, Krayan Barat District, Nunukan Regency, North Kalimantan Province, with the implementation period from November 1, 2025, to December 31, 2025, while the unit of analysis was inpatient service activities and the cost components attached to those activities during January to December 2025.

The study population was all operational cost data of the inpatient unit for 2025, including direct costs, indirect costs, and overhead costs. The research sample consisted of inpatient operational and financial data from January to December 2025, including the number of patients per class, patient days, number and working hours of medical staff, overhead costs, and main service activity data as a basis for determining *cost drivers*. The sample was selected using *purposive sampling* with inclusion criteria of complete, consistent, and verifiable inpatient data for 2025 from official hospital sources, while exclusion criteria included data outside the inpatient unit, outside the 2025 period, and incomplete or unverifiable data.<sup>10</sup>

Data were collected through documentation and interviews. Documentation was conducted by reviewing financial reports, cost ledgers, utility summaries, laundry data, patient consumption

data, and other relevant operational documents. Interviews were conducted with authorized personnel and relevant staff, especially from the finance department, management, and health workers, using a structured interview guide to confirm activity flows, resource use, and cost drivers. The research instruments included an inpatient operational data extraction sheet, a cost data extraction sheet, and an interview guide. Data validity was maintained through triangulation by comparing interview results and documents, accompanied by *member checks* with informants, and checking the authenticity and period appropriateness of documents. Reliability was maintained through consistent collection procedures, use of uniform guidelines, systematic recording, and cross-confirmation from more than one internal source.

Data analysis was performed using ABC procedures, starting with identification of inpatient activities, grouping costs into *cost pools* per activity, determining *cost drivers* that represent cause-and-effect relationships, calculating *activity rates* by dividing total cost pool cost by total *cost driver* units, then allocating costs to services or care classes based on *cost driver* consumption to obtain *unit cost*. Cost efficiency was calculated by comparing the total cost of traditional and ABC methods and expressing it as a percentage difference, then the results were interpreted to assess cost differences, identify inefficient activities and *non-value added activities*, and formulate recommendations for cost control and more accurate tariff setting. The study was conducted after obtaining written approval from the Health Research Ethics Committee (KEPK) of Universitas Prima Indonesia with number 068/KEPK/UNPRI/X/2025 and fulfilling ethical requirements, especially data confidentiality, use of aggregate data, and removal of patient identities and personal identities from the analyzed data.

---

## RESULTS

---

RS Pratama Krayan is a Type D primary hospital located in Pa' Mering Village, Krayan Barat District, Nunukan Regency, North Kalimantan Province, in the Indonesian border region directly adjacent to Sarawak, Malaysia. The Krayan region has limited access characteristics as it can only be reached by air transport, while land access generally goes through Sarawak, Malaysia,

with a total population of five districts of 13,099 people. This hospital was built by the Nunukan Regency Regional Government as an effort to expand access to referral health services in the border region, with main services including a 24-hour Emergency Installation, outpatient clinic, maternity services, inpatient care, and medical support services. An overview of the profile, resources, and service indicators for 2024 is presented in Table 1.

**Table 1. Profile and Service Indicators of RS Pratama Krayan in 2024 in Pa' Mering Village, Nunukan Regency (n = 1 hospital)**

<b>Component</b>	<b>Summary Value</b>
<b>Type and location</b>	Type D pratama hospital, Pa' Mering Village, Krayan Barat, Nunukan, North Kalimantan
<b>Regional access conditions</b>	Main access is by air transportation, land access generally through Sarawak, Malaysia
<b>Population of the Krayan region</b>	13,099 people across five sub-districts
<b>Inpatient bed capacity</b>	10 beds
<b>Main services</b>	24-hour Emergency Installation, outpatient clinic, 24-hour delivery, inpatient care, pratama laboratory, radiology, pharmacy
<b>Inpatient rooms</b>	Melati, Mawar, Anggrek, Raflesia Rooms
<b>Outpatient clinic operating hours</b>	Monday–Thursday 08.00–14.00, Friday 08.00–11.30, Saturday 08.00–14.00
<b>Medical personnel</b>	3 general practitioners, 1 dentist
<b>Nursing and midwifery personnel</b>	23 nurses, 9 midwives
<b>Medical support staff</b>	3 pharmacists, 5 pharmacy technicians, 6 health analysts, 1 nutritionist, 3 public health workers
<b>Non-health personnel</b>	General administration and staffing 3, finance 2, security 6, IPSRS 3, registration 2, cashier 1

<b>Top outpatient cases</b>	Myalgia 19%, dyspepsia 17%, and ARI 15%
<b>Top inpatient cases</b>	Gastritis 27%, dyspepsia 23%, and typhoid 17%
<b>Top Emergency</b>	Gastritis 27%, dyspepsia 21%, and febris 20%
<b>Installation cases</b>	
<b>Births and deaths</b>	4 births, 9 deaths
<b>Service indicators</b>	Bed Occupancy Rate (BOR) 21.4%, Bed Turn Over (BTO) 29 times, Turn Over Interval (TOI) 10 days, and Average Length of Stay (AVLOS) 0 days

Based on interviews with the finance department, inpatient service tariffs were determined using an internal *unit cost* calculation by summing fixed, semi-variable, and variable cost components to obtain total cost, then dividing by the number of inpatient days or number of inpatients as the basis for the tariff. Inpatient volume data and cost driver data for 2025 used in the ABC calculation are presented in Table 2, including applicable inpatient tariffs, room area, electricity consumption, and consumption cost per day per class.

**Table 2. Inpatient Volume and Cost Driver Data per Class from January to December 2025 at RS Pratama Krayan, North Kalimantan (n = 12 months, 4 classes)**

<b>Class</b>	<b>Applicable Tariff (Rp per day)</b>	<b>Inpatients (people)</b>	<b>Inpatient Days (days)</b>	<b>Average Length of Stay (days)</b>	<b>Room Area (m<sup>2</sup>)</b>	<b>Electricity Consumption (kWh)</b>	<b>Meal Cost per Day (Rp)</b>
<b>VIP</b>	Rp 350,000	577	2,663	4.62	420	6,800	Rp 55,000
<b>Class I</b>	Rp 200,000	972	5,205	5.35	310	5,200	Rp 40,000
<b>Class II</b>	Rp 180,000	2,007	8,530	4.25	295	4,600	Rp 30,000

<b>Class</b>	Rp 150,000	5,233	10,925	2.09	340	5,900	Rp
<b>III</b>							18,000
<b>Total</b>		<b>8,789</b>	<b>27,323</b>	<b>3.11</b>	<b>1,365</b>	<b>22,500</b>	

The total inpatient operational cost for 2025 analyzed was IDR 2,744,000,000, composed of nine cost elements. The breakdown of costs and percentage contribution of each cost element to the total inpatient operational cost is presented in Table 3.

**Table 3. Inpatient Operational Cost Elements for 2025 at RS Pratama Krayan, North Kalimantan (n = 9 cost elements)**

<b>Cost Element</b>	<b>Total Annual Cost (Rp)</b>	<b>Percentage (%)</b>
<b>Nursing Staff Salaries</b>	Rp 325,000,000	11.8
<b>Patient Meals</b>	Rp 875,000,000	31.9
<b>Electricity and Water Costs</b>	Rp 325,000,000	11.8
<b>Laundry and Linen Costs</b>	Rp 72,000,000	2.6
<b>Cleaning and Sanitation</b>	Rp 255,000,000	9.3
<b>Administration Costs</b>	Rp 410,000,000	14.9
<b>Building Maintenance</b>	Rp 185,000,000	6.7
<b>Building Depreciation</b>	Rp 245,000,000	8.9
<b>Equipment Depreciation</b>	Rp 52,000,000	1.9
<b>Total</b>	<b>Rp 2,744,000,000</b>	<b>100.0</b>

The implementation of ABC in the inpatient unit was carried out by determining cost drivers for each cost activity, namely inpatient days for volume-based service activities, electricity consumption for electricity and water cost activities, and room area for facility-related activities. Activity rates were calculated by dividing total activity cost by total cost driver according to its unit, as presented in Table 4.

**Table 4. Cost Activities, Cost Drivers, and Activity Rates using the Activity Based Costing Method for 2025 at RS Pratama Krayan, North Kalimantan (n = 9 activities)**

<b>Cost Activity</b>	<b>Total Cost (Rp)</b>	<b>Cost Driver</b>	<b>Total Driver</b>	<b>Driver Unit</b>	<b>Rate per Unit (Rp)</b>
<b>Nursing Staff</b>	Rp	Inpatient days	27,323	days	Rp 11,894.74
<b>Salaries</b>	325,000,000				
<b>Patient Meals</b>	Rp	Inpatient days	27,323	days	Rp 32,024.30
	875,000,000				
<b>Electricity and</b>	Rp	Electricity	22,500	kWh	Rp 14,444.44
<b>Water Costs</b>	325,000,000	consumption			
<b>Laundry and Linen</b>	Rp	Inpatient days	27,323	days	Rp 2,635.14
<b>Costs</b>	72,000,000				
<b>Cleaning and</b>	Rp	Room area	1,365	m <sup>2</sup>	Rp 186,813.19
<b>Sanitation</b>	255,000,000				
<b>Administration</b>	Rp	Inpatient days	27,323	days	Rp 15,005.67
<b>Costs</b>	410,000,000				
<b>Building</b>	Rp	Room area	1,365	m <sup>2</sup>	Rp 135,531.14
<b>Maintenance</b>	185,000,000				
<b>Building</b>	Rp	Room area	1,365	m <sup>2</sup>	Rp 179,487.18
<b>Depreciation</b>	245,000,000				
<b>Equipment</b>	Rp	Inpatient days	27,323	days	Rp 1,903.16
<b>Depreciation</b>	52,000,000				

The activity rates in Table 4 were then used to allocate costs to each inpatient class according to cost driver consumption, resulting in total activity-based cost per class, *unit cost* per day per class, and the difference from the applicable inpatient tariff. The details of cost allocation and summary of ABC method *unit cost* calculation results are presented in Table 5.

**Table 5. Activity-Based Cost Allocation and Inpatient Unit Cost using the Activity Based Costing Method for 2025 at RS Pratama Krayan, North Kalimantan (n = 9 activities, 4 classes)**

<b>Cost Activity and Summary</b>	<b>VIP (Rp)</b>	<b>Class I (Rp)</b>	<b>Class II (Rp)</b>	<b>Class III (Rp)</b>	<b>Total (Rp)</b>
<b>Nursing Staff Salaries</b>	31,675,695	61,912,125	101,462,138	129,950,042	325,000,000
<b>Patient Meals</b>	85,280,716	166,686,491	273,167,295	349,865,498	875,000,000
<b>Electricity and Water Costs</b>	98,222,222	75,111,111	66,444,444	85,222,222	325,000,000
<b>Laundry and Linen Costs</b>	7,017,385	13,715,917	22,477,766	28,788,932	72,000,000
<b>Cleaning and Sanitation</b>	78,461,538	57,912,088	55,109,890	63,516,484	255,000,000
<b>Administration Costs</b>	39,960,107	78,104,527	127,998,390	163,936,976	410,000,000
<b>Building Maintenance</b>	56,923,077	42,014,652	39,981,685	46,080,586	185,000,000
<b>Building Depreciation</b>	75,384,615	55,641,026	52,948,718	61,025,641	245,000,000
<b>Equipment Depreciation</b>	5,068,111	9,905,940	16,233,942	20,792,007	52,000,000
<b>Total ABC Cost (Rp)</b>	477,993,466	561,003,878	755,824,269	949,178,388	2,744,000,000
<b>Inpatient Days (days)</b>	2,663	5,205	8,530	10,925	27,323
<b>ABC Unit Cost (Rp per day)</b>	Rp 179,494	Rp 107,782	Rp 88,608	Rp 86,881	
<b>Applicable Tariff (Rp per day)</b>	Rp 350,000	Rp 200,000	Rp 180,000	Rp 150,000	
<b>Difference of Unit Cost vs. Tariff (Rp per day)</b>	(Rp 170,506)	(Rp 92,218)	(Rp 91,392)	(Rp 63,119)	

---

<b>Change vs. Tariff (%)</b>	(48.7)	(46.1)	(50.8)	(42.1)
------------------------------	--------	--------	--------	--------

---

---

## DISCUSSION

---

The results of this study indicate that the implementation of ABC in the inpatient unit of RS Pratama Krayan was preceded by the identification of nine main cost activities, namely nursing staff salaries, patient consumption, electricity and water costs, laundry and linen costs, cleaning and sanitation, administrative costs, building maintenance, building depreciation, and equipment depreciation, with patient consumption, electricity and water, administration, and laundry being prominent. These findings confirm that the structure of inpatient costs in a border area Primary Hospital consists of clinical and non-clinical activities that both consume resources, so that comprehensive activity identification is a prerequisite so that cost allocation is not done uniformly but rather follows resource consumption for each service activity. The emphasis on activities as cost drivers aligns with the ABC concept which places activities as the starting point for cost tracing to produce more accurate and detailed cost information.<sup>11,12</sup> In the hospital context, the heterogeneous nature of patient service needs reinforces the urgency of complete activity identification so that costs can be allocated more proportionally to cost objects, particularly inpatient care classes.<sup>13</sup>

Based on the characteristics of cost activities, components such as nursing staff salaries, patient consumption, electricity and water, and laundry show a tendency to be directly related to service volume in the *unit level* category, meaning that changes in the number and length of inpatient days will be immediately reflected in the magnitude of costs in this group. An additional interesting finding is the large proportion of patient consumption costs as the largest cost component in inpatient operations, simultaneously indicating that the patient meal service pattern is the main driver of daily costs. This condition shows that cost control strategies are not sufficient to only suppress small costs but need to place high-cost activities as the focus of evaluation because their contribution is most significant to total costs. Grouping activities into homogeneous *cost pools* like this also facilitates more systematic allocation of overhead costs and reduces the potential

for cost allocation distortions that commonly arise when all overhead is allocated using a single allocation base.<sup>11,14</sup>

The determination of *cost drivers* in this study produced an allocation pattern that shows a clearer cause-and-effect relationship between activities and resource consumption. The majority of activities used inpatient days as the *cost driver* because costs arise in line with service duration, while electricity and water costs used kWh consumption and cleaning, maintenance, and building depreciation activities used room area because they better represent facility-based resource usage. The principle that costs always have a cause, namely activities, and that these causes can be managed, is an important foundation in selecting representative *cost drivers*.<sup>15</sup> A notable finding is that the VIP class had the highest electricity consumption despite having the fewest inpatient days, indicating that the intensity of facility use and comfort equipment more determines energy consumption than the duration of care. This pattern reinforces the argument that selecting kWh-based *cost drivers* for utilities is a more appropriate decision than using inpatient days, because it increases the sensitivity of cost allocation to actual resource consumption behavior.<sup>11</sup> Another finding that needs attention is that the use of inpatient days as the *cost driver* for administration and equipment depreciation still has limitations in representing variations in administrative burden and facility usage between patients, so alternative *cost drivers* such as number of patients or number of administrative transactions should be considered when data is available, as emphasized that *cost drivers* must have a strong causal relationship with overhead consumption.<sup>11,16,17</sup>

The tariff comparison shows that the ABC calculation results produced lower daily tariffs in all classes compared to the applicable tariffs, with the largest decrease occurring in Class II. This finding indicates that the old tariffs tended to reflect cost allocation that was too high compared to actual resource consumption, thus potentially producing less precise cost information for cost control and tariff setting. Conditions like this align with criticisms of traditional cost systems that often use simple allocation approaches and lack representation of cause-and-effect cost relationships, thereby causing cost distortion and reducing the quality of managerial information.<sup>18</sup> The results of this study are consistent with previous study findings showing that the implementation of ABC in inpatient services can reveal significant differences between established

tariffs and activity-based service costs, thus helping hospitals understand tariff adequacy and potential subsidies between classes.<sup>8,9</sup> From a decision-making perspective, activity-based cost information provides room for management to assess fixed costs and capacity more strategically, especially for facility cost components that are relatively unchanged in response to patient volume.<sup>19</sup>

The relationship of the findings to the target population context is clearly seen in the characteristics of RS Pratama Krayan as a Primary Hospital in a border region with limited resources and access challenges. In contexts like this, facility costs and service support costs must be borne regardless of variations in inpatient volume, so a cost system capable of tracing resource consumption is important for operational cost control. The findings that the VIP class has high utility costs, as well as the large proportion of patient consumption and administration costs, point to opportunities for operational cost control, for example energy efficiency and streamlining administrative processes without reducing service quality, as is the direction for utilizing cost information for more measurable operational efficiency.<sup>20</sup> In terms of generalization, this pattern of findings is relevant for government Type D hospitals or Primary Hospitals in rural and remote areas that have similar service characteristics, relatively large facility cost structures, and a need for cost transparency for fairer tariff setting. However, the level of applicability to other hospital populations is still influenced by differences in bed capacity, service consumption standards, intensity of facility use, and budgeting and financing policies, so implementation in other locations needs to adjust activity mapping and *cost driver* selection according to the characteristics of each hospital.<sup>13,14</sup>

---

### CONCLUSION AND RECOMMENDATIONS

---

This study concludes that the implementation of ABC in the inpatient services of RS Pratama Krayan in 2025 was able to map the operational cost structure in more detail through the identification of nine main cost activities, namely nursing staff salaries, patient consumption, electricity and water costs, laundry and linen costs, cleaning and sanitation, administrative costs, building maintenance, building depreciation, and equipment depreciation, with a total inpatient operational cost of IDR 2,744,000,000. The calculation of activity rates based on *cost drivers* in the

form of inpatient days, room area, and electricity consumption, followed by activity-based cost allocation to each care class, resulted in different inpatient *unit costs* per day for each class, namely VIP class of IDR 179,494, Class I of IDR 107,782, Class II of IDR 88,608, and Class III of IDR 86,881. These findings indicate that the selection of appropriate *cost drivers* provides more proportional and transparent cost allocation, while also indicating that the applicable inpatient tariffs are still higher than the ABC-based tariffs in all classes, with tariff reductions ranging from 42.1% to 50.8%.

The implication of this study is the availability of a more accurate cost information base for operational cost control and evaluation of inpatient tariff setting so that it is fairer and aligns with the pattern of resource consumption mapped in the ABC analysis. The management of RS Pratama Krayan is advised to gradually adjust tariffs using the ABC calculation results as a reference so that changes do not cause too drastic a financial impact, while still considering community affordability and operational sustainability. The research results can also be utilized as material for drafting policy proposals, including proposing tariff pattern revisions towards a BLUD scheme to the Nunukan Regency Government supported by ABC calculation results, comparison with similar hospital tariffs, ability-to-pay analysis, and projection of impacts on access and service sustainability. For academic development, further research is recommended to expand the implementation of ABC to other service units such as the Emergency Installation, outpatient services, laboratory, radiology, and pharmacy in order to obtain a more comprehensive picture of the hospital's cost structure.

---

#### ACKNOWLEDGMENTS

---

Thanks are conveyed to the Leadership and management team of RS Pratama Krayan, North Kalimantan, especially the Finance and Personnel Department and the inpatient unit, for research permission, data access, and support during the data collection process through documentation and interviews. The authors also express appreciation to the Master of Public Health Study Program, Faculty of Medicine, Dentistry, and Health Sciences, Universitas Prima Indonesia, Medan, for academic guidance and facilitation of research completion. This research was funded independently

by the authors without institutional grants or commercial sponsors. The authors declare no *conflict of interest*, whether financial, commercial, legal, or professional, that could influence the research results.

---

## REFERENCES

---

1. Sahambang I, Mantiri MS, Sampe S. Kualitas Pelayanan Kesehatan di Rumah Sakit Umum Daerah Lapangan Sawang Kabupaten Kepulauan Siau Tagulandang Biaro. *J Gov Internet*. 2021;1(2):1–11. Available from: <https://ejournal.unsrat.ac.id/v3/index.php/governance/article/download/35165/32925/74340>
2. Aisyah N, Fajrianti F. Penerapan Activity Based Costing dalam Menentukan Tarif Jasa Rawat Inap pada Rumah Sakit Sitti Khadijah 1 Muhammadiyah Makassar. *BIJAC Bata Ilyas J Account Internet*. 2021;2(2):42–51. Available from: <https://journal.stieamkop.ac.id/index.php/bijak/article/download/1563/1010>
3. Kementerian Kesehatan Republik Indonesia. Peraturan Menteri Kesehatan Republik Indonesia Nomor 85 Tahun 2015 tentang Pola Tarif Nasional Rumah Sakit Internet. 2015. Available from: <https://www.kemhan.go.id/itjen/wp-content/uploads/2017/03/bn9-2016.pdf>
4. Hanum Z, Wahyudi A. Analisis Activity Based Costing System sebagai Alternatif Perhitungan Tarif Jasa Rawat Inap pada Rumah Sakit Umum Haji Medan. *Liabilities (Jurnal Pendidik Akuntansi) Internet*. 2020;3(2):121–31. Available from: <https://jurnal.umsu.ac.id/index.php/LIAB/article/download/5590/4769>
5. Arlita DS, Rahmadhanni P, Putra PE. Analisis Penerapan Metode Activity Based Costing dalam Menentukan Harga Produksi pada Arief Gordyn. *J Pendidik Tambusai Internet*. 2021;5(2):3982–91. Available from: <https://jptam.org/index.php/jptam/article/view/1473>
6. Sanduan A. Perhitungan Harga Pokok Produksi Lemari Dengan Menggunakan Metode Variable Costing Untuk Dua Pintu Pada UD. Ayah (Meubel Dan Furniture) Kota Ambon. *Innov J Soc Sci Res Internet*. 2024;4(4):9113–34. Available from: <https://j-innovative.org/index.php/Innovative/article/download/13595/9449/23786>
7. Chotimah C, Wati DSS, Jornalis I. Sistem Informasi Manajemen dalam Kompetisi Bisnis

- Lembaga Pendidikan Islam. *J Educ Res.* 2023;4(3):1064–74.
8. Asmadi D, Rahmawati S, Akbar MI, Hidayaturrahmi H. Analisis Biaya Layanan Rawat Inap Rumah Sakit Menggunakan Metode ABC: Studi Kasus. *J Kesehat Tambusai Internet.* 2023;4(1):174–83. Available from: [https://www.researchgate.net/profile/Didi-Asmadi-2/publication/370903023\\_ANALISIS\\_BIAYA\\_LAYANAN\\_RAWAT\\_INAP\\_RUMAH\\_SAKIT\\_MENGGUNAKAN\\_METODE\\_ABC\\_STUDI\\_KASUS/links/6468a0c070202663165cbf9c/ANALISIS-BIAYA-LAYANAN-RAWAT-INAP-RUMAH-SAKIT-MENGGUNAKAN-METODE-ABC-S](https://www.researchgate.net/profile/Didi-Asmadi-2/publication/370903023_ANALISIS_BIAYA_LAYANAN_RAWAT_INAP_RUMAH_SAKIT_MENGGUNAKAN_METODE_ABC_STUDI_KASUS/links/6468a0c070202663165cbf9c/ANALISIS-BIAYA-LAYANAN-RAWAT-INAP-RUMAH-SAKIT-MENGGUNAKAN-METODE-ABC-S)
  9. Payu AA. Penerapan Activity Based Costing (ABC) Pada Tarif Jasa Rawat Inap Rumah Sakit Bhayangkara. *Nobel Manag Rev Internet.* 2022;3(2):246–60. Available from: <https://e-jurnal.nobel.ac.id/index.php/NMaR/article/download/3018/1355/5775>
  10. Suriani N, Risnita, Jailani MS. Konsep Populasi dan Sampling Serta Pemilihan Partisipan Ditinjau Dari Penelitian Ilmiah Pendidikan. *J IHSAN J Pendidik Islam.* 2023;1(2):24–36.
  11. Pusung RJ. Penerapan Activity Based Costing Sebagai Alat Bantu Pengendalian Biaya dan Efisiensi Layanan pada PT Yofanka Bersama Utama Clearry Julistya Pangau. *Manaj Bisnis dan Keuang Korporat.* 2025;3(1):128–41.
  12. Tiow AG. Penerapan target costing dengan pendekatan activity-based costing pada UD. Monicha Jaya. *Manaj Bisnis dan Keuang Korporat.* 2025;3(1):184–95.
  13. Dewi KMK, Suhaedi W. Analisis Penerapan Metode Activity Based Costing dalam Penetapan Tarif Jasa Rawat Inap di Rumah Sakit Umum Daerah Kota Mataram. *JPEK (Jurnal Pendidik Ekon dan Kewirausahaan).* 2025;9(2):949–60.
  14. Eriadi A, Alam S. Model Penelusuran Biaya Overhead Pada Rumah Sutra Sabbena Soppeng. *J Appl Manag Account.* 2020;4(2):310–22.
  15. Fadiyah JR, Machdar NM. Activity Based Costing , Efisiensi Biaya dan Kinerja Keuangan. *J Mutiara Ilmu Akunt.* 2025;3(1):70–81.
  16. Sondakh BA, Sabijono H, Gerungai NYT. Penerapan Activity Based Costing System Dalam Menghitung Harga Pokok Penjualan Pada CV. Verel Tri Putra Mandiri Manado. *J EMBA J Ris Ekon Manajemen, Bisnis dan Akunt.* 2023;11(3):282–91.

17. Dewi AA. Analisis Penerapan Metode Activity-Based Costing dalam Menentukan Tarif Jasa Rawat Inap pada Rumah Sakit Primaya Bekasi Utara. *Bundling J Manaj dan Bisnis*. 2024;1(1):9–15.
18. Zamhar muhammad J, Rahmawati L, Bakti KR, Hapipah lina N, Nurani NA, Satrya ilham Z, et al. Tinjauan Sistem Activity Based Costing pada Harga Pokok Produksi. *IRWNS Ind Res Work Natl Semin*. 2021;4(5):1172–6.
19. Firmansyah R, Palupi RD, Kafrawi S, Susilowati N, Susanti AP. Penentuan Biaya Pendidikan Siswa Sd Labschool Unnes Melalui Activity Based Costing. *J Ilm Manaj Bisnis Dan Inov Univ Sam Ratulangi*. 2022;9(2):562–73.
20. Saputri D, Astuti W. Activity Based Costing (ABC) Method dalam Menentukan Tarif Layanan Rawat Inap pada RSUD Provinsi NTB. *J Ris Mhs Akunt*. 2025;5(1):128–41.