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**DETERMINATION OF HOSPITAL INPATIENT ROOM RATES USING  
THE ACTIVITY BASES COSTING (ABC) METHOD**

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**Abstract**

Health development is one of the efforts to improve the degree of public health, by providing health services that are broader, equitable and affordable. Competition does not only appear for newly established companies, but for long-standing companies to feel a partnership. In the face of intense competition, reliable management is needed and is able to anticipate any competition and can run the company effectively and efficiently. One thing that needs to be considered to be an important concern is the tariff issued by the company. The data used in this study is the financial data of the RSUD Sekadau from 2014-2018. The costing method in this study uses the Activity Based Costing (ABC) method. The results of calculations in this study are class 1 inpatient room rates of IDR 282,660. Class 2 is IDR 173,983 and Class 3 is IDR 76,288.

**Keywords:** Rates, Activity Base Costing, Cost Accounting

**Introduction**

Development in the health sector is an important part of national development. The main objective of development in the health sector is to improve the degree of public health, by providing health services that are broader, equitable and affordable, both urban and rural communities. High health status, is expected to improve the quality of human resources themselves.

Development of the world today, causing increasingly fierce competition. Not only does competition emerge for newly established companies, but long-established companies will certainly emerge competition. In the face of intense competition, reliable management is needed and is able to anticipate any competition and can run the company effectively and efficiently. It must be realized that one of the determinants that can produce quality resources is health, the fact shows that good health will increase productivity. The importance of health problems must be recognized by the parties involved both government and private. The government is now doing health service improvement to the community. A concrete manifestation of the government's attention to health development by efforts to improve quality and health services, improve health service facilities and community nutrition.

The following is the realization of revenue and expenditure in RSUD Sekadau for the past 5 years.

**Table 1. Realization of Revenue and Expenditure in RSUD Sekadau in 2014-2018**

No	Year	Revenue	(%)	Expenditure	(%)
1	2018	13.972.474.722,46	13,51%	40.292.248.655,83	16,15%
2	2017	12.309.791.192,39	24,84%	34.688.613.983,03	12,21%
3	2016	9.860.419.641,26	22,55%	30.913.459.296,09	23,98%
4	2015	8.046.250.832,33	24,83%	24.934.516.010,44	-9,13%
5	2014	6.446.017.296,00	-	27.438.633.001,00	-

Source: RSUD Kab. Sekadau, 2019

Table 1 shows that the last 5 years from 2014 to 2018, the reception of RSUD Sekadau from year to year has increased. The biggest increase occurred in 2017 where revenues increased from more than 9 billion to 12 billion rupiah, an increase of 24.84%. In 2018 admissions increased but still in a change in 2018 the increase is still far below the changes in 2017 and 2016. This could be due to the decline in the community receiving health services at this hospital. So the increase in hospital admissions is not very significant compared to 2017.

Meanwhile, Table 1 also shows hospital operating costs for 5 years. If you pay attention to the amount of the cost is much greater than the receipt received by the hospital. This is because hospitals are still not able to independently fund the activities of hospitals so that the RSUD Sekadau is still very dependent on the Sekadau district government. For this reason, in order to continuously increase revenue from the District Hospital. In order to finance the hospital's operational activities, RSUD Sekadau continues to strive to increase hospital revenue or revenue by one of them setting hospital servant rates and providing optimal health services to the community so that people can be satisfied with the services provided.

Previous research that discusses the calculation of hospital inpatient room rates with the Activity Bases Costing (ABC) method has been done by Kula (2013), Mulyanti dan Bagianto (2013), Budiman (2012), Urfah (2015), Rakhmadianty (2014), Putri (2012), Andriyansyah (2012), and Selvia (2012), Miranti and Triharyati (2015), Kuanang and Walandouw (2015), and Politon (2019).

See the phenomena that occur in RSUD Sekadau then this research needs to be done to be able to become material and basic considerations for determining room rates at the Regional Hospital of Sekadau Regency at a very high competitiveness at this time. Rates that are too high are not attractive to the public and cause hospital revenue to be insufficient to be able to maintain services with certain quality standards. Rates that are too cheap will not be adequate even though the hospital's utilization rate is high, because recovery of hospital costs cannot be done. For this reason, inpatient room rates are needed so that hospitals can obtain optimal benefits by providing the best health services to the community. So that public health, especially in Sekadau Regency is guaranteed and can be affordable by the community while still being able to obtain maximum benefits. Based on the background above, the problem in this study is how to calculate inpatient room rates in RSUD Sekadau using the Activity Bases Costing (ABC) method.

### Literature Review

According to Bastian and Nurlala (2006; 4), costs are the sacrifice of economic resources measured in units of money that have occurred or are likely to occur to achieve certain goals. This is in line with Mursyidi (2010; 14), Horngren (2008; 35), Mulyadi (2003; 8), Dunia and Abdullah (2012: 22).

Witjaksono (2006), Carter (2006) and Marismiati (2011) say that activity based costing is a cost calculation system in which more than one overhead cost shelter is allocated on a basis that includes one or more factors not related to volume ( non-volume-related factor).

The hospital is a service business unit that provides social services in the clinical medical field. Hospital business unit management is unique because apart from being a business unit, hospital business also has a social mission. According to Hasegawa et al. (2017) said the Hospital as a public organization is expected to be able to provide quality health services to the community. Whereas Puspitawati and Ratnawati (2014) said that hospitals are health care institutions that provide complete personal health services that provide inpatient, outpatient, and emergency services as well as health services provided which include promotive, preventive, curative, and rehabilitative.

Armen and Azwar (2013) stated that hospital is one of the facilities that can support health development. Hospitals have a very strategic role in efforts to accelerate the improvement of public health status. The health services provided by the hospital include but are not limited to examinations, treatments, medications, medical procedures and other diagnostic measures needed by patients.

Quality health services are health services that can satisfy each service user in accordance with the average level of satisfaction of the population and their implementation in accordance with established standards and professional codes of ethics. Hospitals must have a clear management pattern to achieve optimal service quality standards, so that hospitals can develop, both in terms of service and financial. A correct accounting system in a hospital is very necessary because the services provided to patients require substantial funding without ignoring quality and professionalism (Laksono, 2004).

The role of the hospital financial and financial system is essential to achieving this goal. But until now there are still many problems in the financing system and hospital financial management that have not been addressed. In the 1990s, the government / MOH determined that hospitals must carry out social and economic functions at the same time. And in this 21st century the health sector has higher costs, this can be seen with the era of globalization which has an impact on increasing population, advances in science and technology in the health sector and increasing demand for health services (Sumilat, 2013). This causes the cost of health services from day to day higher. On the other hand, the occurrence of inflation causes higher costs for medicines, the cost of medical and non-medical components of sophisticated health services such as air conditioning, carpet, telephone, television and others (Gani, 1996).

Actually the budget for health financing in Indonesia is between expectation and reality because for the past 50 years it has not exceeded the 4.0% figure (around 3.0-4.0%), while WHO recommends a minimum of 5.0% of the State budget income and expenditure funds (Trinantono, 2005). Research by Thabrany (2000), Widayanti (2004), Setiaji (2006) and Kalu (2013) suggests that one of the obstacles in mobilizing funds is the low rates of puskesmas and hospitals according to local regulations that are determined based only on political considerations rather than economic considerations. In line with research conducted by Razak (2004) which revealed that the problem of financing in the sense of inadequate budget allocation while revenue from revenue is still low and should not be used directly, this condition will have a serious impact on

health services in hospitals because as an organization which operates every day, financial liquidity is the main thing and is needed to carry out its operations.

In general, this can disrupt the financial performance of hospitals and means that there are cost components that must be sacrificed, Widayanti (2004: 2). So the management requires information relating to costs that have occurred to produce a product. Based on the Decree of the Minister of Health RI No.582 / Menkes / SK / IV / 1997, dated June 11, 1997 regarding Government Hospital Tariff Patterns based on unit cost analysis especially in article 8 paragraph 2, it was stated that the average unit cost of care inpatient is calculated through cost analysis using the double distribution method, which is a way to calculate the unit (unit cost) by distributing all costs used in the supporting unit to the production unit (multiple distribution).

### **Research methods**

The research method used in this research is descriptive method. The type of data used in this study is primary data. Data in the form of financial data District Hospital. As from 2014-2018, which had been audited and then published, data on health service rates in RSDU Sekadau in particular the details of costs related to inpatient room rates at the RSDU Sekadau.

The costing method in this study uses the Activity Based Costing (ABC) method. Activity Based Costing method that calculates each cost per activity, which is charged directly and indirectly in the cost of each action per day which in this study is called a cost driver that will determine the rate of inpatient room space. The ABC method was chosen as one of the methods for determining the cost because this method can be implemented and has an adequate information system to support the determination of health service tariffs at the RSDU Sekadau.

### **Discussion**

The method used in calculating the cost of health services in the RSDU Sekadau is Activity Based Costing which calculates each cost per activity, which is charged directly and indirectly in the cost of each action per day which is then combined in the cost driver of each action that incurs tariffs at the RSDU Sekadau. ABC method was chosen as one of the methods of determining the cost because this method can be implemented and has an adequate information system to support in determining health care tariffs at the RSDU Sekadau.

The costs included in the cost driver of each service activity and the actions provided at the hospital are as follows:

1. Paramedic Services
2. Cleaning Service
3. Administrative Services
4. Security Services
5. Cost of Consumables
6. Cost of Depreciation of Household Appliances
7. Cost for Depreciation of Medical Devices
8. Cost of Depreciation of Medical Devices for Sea Level
9. Building Depreciation Costs
10. Water Costs
11. Electricity Costs
12. Jastel Fee

The following is a simulation of the calculation of Inpatient Room service rates at the RSUD Sekadau.

**Table 2. Breakdown of Costs Allocated for Inpatients at the RSUD Sekadau**

No	Activity Costs	Class 1	Class 2	Class 3
1	Medics Services	113.244.006	350.299.718	1.500.613.540
2	Cleaning Service	35.993.230	111.338.505	476.951.763
3	Administrative Services	28.096.756	86.912.200	372.314.386
4	Security Guard Services	5.141.890	15.905.501	68.135.966
5	Consumable Material Costs	1.196.051	3.699.765	15.849.048
6	Cost of Depreciation of RT Equipment	28.699.552	88.776.840	380.302.128
7	Depreciation Costs for medical equipment	767.713	2.374.780	10.173.078
8	Depreciation Costs for sea dimension medical devices	92.324	285.589	1.223.406
9	Depreciation Building Costs	594.581	990.969	2.378.325
10	Water Cost	694.398	2.147.992	9.201.568
11	Electricity cost	25.481.007	39.410.428	16.882.635
12	Jastel fee	5.347.743	16.542.270	70.863.760
Total Cost		245.349.250	718.684.557	2.924.889.603

Table 2 shows the amount of costs allocated to each inpatient unit in RSUD Kab. Sekadau. The data is obtained from the calculation of the cost driver per service charged to each inpatient unit. By dividing each direct and indirect cost to each inpatient unit. To calculate the unit cost per class, the total cost must be shared with the day of care per class.

**Table 3. Calculation of Class 1 Inpatient Rates at the RSUD Kab. Sekadau**

No	Activity	Cost Driver	Total Cost	Total
1	Medics Services	130.465	868	113.244.006
2	Cleaning Service	41.467	868	35.993.230
3	Administrative Services	32.370	868	28.096.756
4	Security Guard Services	5.924	868	5.141.890
5	Consumable Material Costs	1.378	868	1.196.051
6	Cost of Depreciation of RT Equipment	33.064	868	28.699.552
7	Depreciation Costs for medical equipment	884	868	767.713
8	Depreciation Costs for sea dimension medical devices	106	868	92.324
9	Depreciation Building Costs	39.639	15	594.581
10	Water Cost	800	868	694.398
11	Electricity cost	1.468	17.360	25.481.007
12	Jastel fee	6.161	868	5.347.743
Total Cost				245.349.250
Number of Usage Days				868
Cost Per Day				282.660
40% Sustainability Reserves				113.064
Amount of Tarif				395.725

Table 3 shows the costs and the amount used as the basis for calculation in determining the amount of inpatient room tariffs for class 1 in the RSUD Kab. Sekadau. From these calculations it can be determined the class 1 inpatient room rate for 1 patient per day is Rp. 395,725, - this includes the allocation of expected reserves or profit. The total cost of inpatient class 1 rooms is Rp. 245,349,250, with 868 days of use of class 1 rooms, the daily cost is Rp.228,660.

**Table 4. Calculation of Class 2 Inpatient Rates at the RSUD Kab. Sekadau**

No	Activity	Cost Driver	Total Cost Driver	Total
1	Medics Services	130.465	2.685	350.299.718
2	Cleaning Service	41.467	2.685	111.338.505
3	Administrative Services	32.370	2.685	86.912.200
4	Security Guard Services	5.924	2.685	15.905.501
5	Consumable Material Costs	1.378	2.685	3.699.765
6	Cost of Depreciation of RT Equipment	33.064	2.685	88.776.840
7	Depreciation Costs for medical equipment	884	2.685	2.374.780
8	Depreciation Costs for sea dimension medical devices	106	2.685	285.589
9	Depreciation Building Costs	39.639	25	990.969
10	Water Cost	800	2.685	2.147.992
11	Electricity cost	1.468	26.850	39.410.428
12	Jastel fee	6.161	2.685	16.542.270
Total Cost				718.684.557
Number of Usage Days				2.685
Cost Per Day				267.667
30% Profit				80.300
Amount of Tariff				347.966
Assumption: 1 room (if filled with 2 people per person)				173.983

While for class 2 the total cost to be incurred is Rp 718,684,557, - with a total cost of 2,685 the number of days of use so that the cost incurred per day is Rp 267,667, - so it is added to the 30% profit allocation of the costs incurred then the tariff for each room is Rp. 347,966, - while in one room can accommodate as many as 2 patients so that each patient will bear the cost of Rp. 173,983, - per day.

**Table 5. Calculation of Class 3 Inpatient Rates at the RSUD Kab. Sekadau**

No	Activity	Cost Driver	Total Driver Cost	Total
1	Medics Services	130.465	11.502	1.500.613.540
2	Cleaning Service	41.467	11.502	476.951.763
3	Administrative Services	32.370	11.502	372.314.386
4	Security Guard Services	5.924	11.502	68.135.966
5	Consumable Material Costs	1.378	11.502	15.849.048
6	Cost of Depreciation of RT Equipment	33.064	11.502	380.302.128
7	Depreciation Costs for medical equipment	884	11.502	10.173.078
8	Depreciation Costs for sea dimension medical devices	106	11.502	1.223.406
9	Depreciation Building Costs	39.639	60	2.378.325
10	Water Cost	800	11.502	9.201.568
11	Electricity cost	1.468	11.502	16.882.635
12	Jastel fee	6.161	11.502	70.863.822
Total Cost				2.924.889.665
Number of Usage Days				11.502
Cost Per Day				254.294
20% Profit				50.859
Amount of Tariff				305.153
Assumption: 1 room (if filled with 4 people per person)				76.288

Rates for class 3 rooms are filled by 4 patients so the cost per patient for each night is IDR 76,288, - because the tariff for one third classroom after calculating the reserve allocation of 20%, the rate is IDR 305,153,-

### Conclusion

Based on the calculation using the Activity Bases Costing method, the class 1 inpatient room rate is Rp.282,660. Class 2 is IDR 173,983 and Class 3 is IDR 76,288. Plans that are being and have been carried out to add to classes of care I and II and VIP are immediately realized as soon as possible so that service users can choose the level of service according to their tastes and financial capabilities. Where the existence of the treatment class can be a source of funds for cross-subsidies for class III who prefer government subsidies.

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