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# **Application of Activity Base Costing (ABC) for the Determination of Service Interest Rate in Medan City Hotel**

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#### **Abstract**

Increasing the level of competition between companies resulted to the number of companies adopting the use of activity-based costing system (costing) based on activity (ABC) with the aim of the company management be able to analyze profitability, encourages process of improvement, developes more innovative performance, and be able to participate in strategic planning. In addition to an activity-based costing based manufacturing company may also be applied to companies in services such as hospitality services. Madani Hotel provides lodging services that aim to provide comfort for guests who use the services of lodging. The lodging services in all three hotels are one of the greatest sources of revenue from other hospitality services to be offered. However, in the determination of the tariff of lodging services at Garuda Plaza Hotel, Madani Hotel and Novotel Soechi still use traditional cost method, so that the offered lodging services become cheaper (under costing) or more expensive (over costing) of the expenses that should be consumed in the lodging services. To maintain and improve the profitability of Garuda Plaza Hotel, Madani Hotel and Novotel Soechi, it will be calculated to determine the rate of lodging services based on activity based costing method. The purpose of this study is expected to get the difference that occurred in the determination of lodging service tariff used by the hotel with the ABC method, in because the cost of the cost of lodging services consumed by the method of ABC and traditional different, so the cost that obtained can be larger or smaller. Therefore the hotel should review the rate of lodging services is being used in such away it will not to harm the hotel or guests.

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Key-word: - Activity Based Costing, Hotel, Accommodation Services, rates

### 1. Introduction

Hotels in Medan City provide lodging services for guests who are to take a rest or spend vacation. The lodging services at hotels in Medan City are one of the largest sources of income of other hotel services offered by these hotels. However, in determining the rate of lodging services hotels in Medan City still use the traditional cost method, so that lodging services offered to be cheaper (under costing) or more expensive (over costing) of the cost of expenses that should be consumed in lodging services.

The traditional method is less effective used in determining the cost of the product, because it only focuses on the presentation of financial information in the form of costs that occur in the stage of patient care. While in the management of lodging services is required information about the causes of the incidence of the cost of activity. The existence of complete information about the cause of the activities of the cost may affect to the rate of lodging services. Traditional methods provide information on lodging tariff rates based on the authority of a manager or director. However, the powers of managers or directors cannot be used to influence the cost of lodging tariffs for managers or directors do not have information on the activities that result in such costs.

The ABC Method provides data on activities that inform managers or directors of the activity of the resources that lead to costs. Traditional methods provide information about the cost of lodging tariffs are less accurate, because the information of tariff lodging only takes into account the cost of lodging as part of lodging costs. ABC method presented information about all the fees charged to the lodging tariff, so the cost of lodging obtained is accurate. The accurate of information on the cost of accommodation rates can help managers or directors analyze profitability, to encourage process of improvement, to develop more innovative of performance, and participate in strategic planning. Activity is a major factor causing the costs and the costs can only be significantly reduced through management of such activities. The cost of the lodging tariff can be well estimated through the planning of activities that causes the cost incurred.

To maintain and improve the profitability of hotels in Medan City, it will be calculated to determine the rate of lodging services based on Activity Based Costing method. Through the description of the background of the above problems, can be formulated problems to be examined that is the gap in the determination of lodging service tariffs with traditional methods and methods ABC, so that researchers do researching to make improvements in the determination of lodging tariffs with ABC method and will be able to know the way determination Lodging tariff using Activity Based Costing (ABC) method.

The purpose of this study includes:

- 1. Calculate of operational cost of lodging by using Activity Based Costing (ABC) method.
- 2. Determine of the appropriate lodging rates by considering the profit that the hotel wants to meet.
- 3. Compare the calculation of lodging tariff that has been applied by the hotel with Activity Based Costing (ABC) method.

#### 2. Literature Review

#### Activity Based Costing (ABC)

Activity Based Costing (ABC) is an accounting system that focuses on activities in the calculation of the cost of service products. Costs (resources) traced to activities and activities traced to products or services based on the activity usage of each service products. ABC is also famous for transaction costing (the cost of goods sold as the result of transactions). Activity Based Costing (ABC) is also a result of improvement efforts by management accounting to evaluate the profitability of these different products or evaluate the costs of service activities consumed differently by the customer.

Activity Based Costing (ABC) is not only a cost information system for costing determination on a cost object. But further than that ABC is designed for the purpose of providing information for all parties involved in individual decision making and employee differences (informing and empowering) to build the competitiveness of the company through cost leadership strategy. The cost object is all items such as products, customers, departments, projects, activities, etc. where such costs are measured and charged.

The cost of activities or activities that do not bring in added value can be eliminated or reduced in several ways, such as:

- 1. Activities and zero defect manufacturing, movement time can be reduced by developing cellular manufacturing, and waiting storage time can be reduced by developing a just in time inventory system (JIT)
- 2. Choosing the lowest cost activity alternatives
- 3. Reduce the time and resources consumed by an activity
- 4. Increase the efficiency of activities that bring added value to the level of economies of scale without being followed by an increase in the total cost of such activities so that the cost activities in each unit that are charged to the product will decrease.

Differences in Activity Based Costing System (ABC) with Traditional Cost System Activity Based Costing system is different from traditional costing system which is commonly used because it is considered cheap and easy calculation to apply. Traditional cost systems whereas direct sources of raw materials and direct labor can be traced directly to the product, while all resources are not directly traced through the cost drivers charged to the product. All costs are not allocated to the value chain process cannot be allocated to the product.

Traditional costing system is commonly used because it is considered cheap and easy to calculate to apply. The disadvantages arising from the traditional use of the above costing system seem to be overcome by using activity based costing system (ABC). While the activity-based costing system is more understand the relationship between activity, resources, cost, and cost drivers is key in understanding ABC with how to operate. ABC system not only use unit of output as cost driver but also non unit driver. ABC system can also direct managers to focus on setting up existing activities so that activities that do not produce added value can be minimized, because this system provides complete information about all activities that occur within the company in an integrated manner.

Decisions made by managers based on ABC-generated information are known activity-based management (ABM), which is defined as a broad system, with an integrated approach that directs management to focus on activities to increase customer value that increase profit.

#### 3. Methodology

In this study, the data sources used consist of:

1. Primary Data

Primary data collection is by doing a direct review at the hotel. The data collected, namely:

- A. Activities available on lodging services
- B. Number of rooms available
- C. The facilities are in the hotel room

#### Secondary Data

Secondary data is data obtained from notes, reports, books from relevant sections or agencies Secondary data collected are

- An overview of the company that includes, company history, service type and company Α. facilities, and management organization.
- Costs associated with lodging services
- Number and length of day for staying
- 3. Observation Method

Observation method is a technique of data collection, where the researchers look for the object by observing directly

**Documentation Method** 

Documentation method is data collection technique, where the researchers seek and obtain data in the form of note. book, leaflet, agenda, and work and so on.

5. Interview method

Interview method is data collecting technique, where the researcher conducted question and Answer verbally to the staff and the field supervisor.

#### 4. Result

Data obtained through observation and then processed through two stages, namely:

Phase I

- Identify activities and Classify Costs to Various Activities
- Classify Activity Fee to Activity
  Identifying Cost Drivers (Cost D Identifying Cost Drivers (Cost Drivers)
- Determining the Cost Pool Per unit Rate

#### Phase II

Conducting searches and costing from activity to product.

**Table1.** Accommodation Service Tariff Year 2016

| Number | Class            | Fee / Day (Rp) |
|--------|------------------|----------------|
| 1.     | Executive Suite  | 600.000        |
| 2.     | Executive Deluxe | 500.000        |
| 3.     | Deluxe           | 400.000        |
| 4.     | Superior         | 300.000        |

Courtesy of Madani Hotel Medan 2016

**Table 2.** Accommodation Service Cost Data of 2016

| No | Elements of fee                   | Fee (Rp)      |
|----|-----------------------------------|---------------|
| 1. | Salary fee                        | 1.651.241.100 |
| 2. | Electricity and water cost        | 293.847.587   |
| 3. | Compsumtion fee                   | 473.107.000   |
| 4. | Administration fee                | 184.686.500   |
| 5. | Material cost out of use          | 887.767.670   |
| 6. | Laundry fee                       | 37.320.000    |
| 7. | Cleaning Cost                     | 115.885.275   |
| 8. | Building maintenance and building | 135.765.728   |
|    | facilities cost                   |               |
|    | Total                             | 2.779.620.860 |

Courtesy of Madani Hotel Medan 2016

The data needed in determining the tariff of lodging service with Activity Based Costing method are the data of lodging cost, the supporting data of the number of guest stay, the supporting data of the length of stay, the supporting data of the number and the room width, the data of the consumption rate of each room. The data of lodging room costs are as follows:

Table3. Supporting Data of Length of Stay Days Year 2016

| No  | Bulan | Executive<br>Suite | Executive<br>Deluxe | Deluxe | Supe<br>Rior |
|-----|-------|--------------------|---------------------|--------|--------------|
| 1.  | I     | 216                | 129                 | 207    | 227          |
| 2.  | II    | 9                  | 79                  | 196    | 280          |
| 3.  | III   | 17                 | 95                  | 191    | 256          |
| 4.  | IV    | 41                 | 51                  | 227    | 252          |
| 5.  | V     | 106                | 0                   | 141    | 217          |
| 6.  | VI    | 76                 | 0                   | 144    | 288          |
| 7.  | VII   | 13                 | 62                  | 294    | 277          |
| 8.  | VIII  | 23                 | 138                 | 241    | 299          |
| 9.  | IX    | 17                 | 147                 | 138    | 235          |
| 10. | X     | 17                 | 214                 | 214    | 249          |
| 11. | XI    | 23                 | 143                 | 189    | 245          |
| 12. | XII   | 23                 | 50                  | 157    | 245          |
| Т   | otal  | 388                | 1.108               | 2.339  | 3.070        |

Courtesy of Madani Hotel Medan 2016

**Table 4.** Supporting Data Number of Guest Guests in 2016

| Number | Room             | Guests |  |
|--------|------------------|--------|--|
| 1.     | Executive Suite  | 89     |  |
| 2.     | Executive Deluxe | 241    |  |
| 3.     | Deluxe           | 487    |  |
| 4.     | Superior         | 557    |  |
|        | Total            | 2.488  |  |

Courtesy of Madani Hotel Medan 2016

Table 5. Supporting Data for Room Area

| No. | Room             | Room Area (m <sup>2</sup> ) |
|-----|------------------|-----------------------------|
| 1.  | Executive Suite  | 240                         |
| 2.  | Executive Deluxe | 240                         |
| 3.  | Deluxe           | 240                         |
| 4.  | Superior         | 240                         |

Courtesy of Madani Hotel Medan 2016

**Tabel 6.** The Rate Consumption Room

| No. | Room             | Fee of Food (Rp) |
|-----|------------------|------------------|
| 1.  | Executive Suite  | 80.000           |
| 2.  | Executive Deluxe | 60.000           |
| 3.  | Deluxe           | 45.000           |
| 4.  | Superior         | 35.000           |

Courtesy of Madani Hotel Medan 2016

#### **Determinations of Accommodation Service Tariff Using Activity Based Costing**

There are five steps in the calculation of the cost of lodging services based on activity-based costing method in this study are:

- a) Identify and define activitie
- b) Classify activity-based costs into activities
- c) Identify cost drivers
- d) Determining the rate per unit cost driver
- e) Charge the product cost using the cost driver rate and activity size.
- f) Identifying and Defining Activities

Based on interviews made with the Hotel Madani Medan in the activities that are available in lodging services. These activities include:

- 1. Accommodation
- 2. Employee Fees
- 3. Inventory Maintenance Activity
- 4. Cost Of Building And Building Facilities
- 5. Cleaning Cost
- 6. Guest Addition Activity
- 7. Cost of Consumption
- 8. Service Activity
- 9. Cost Of Electricity And Water
- 10. Administrative costs
- 11. Cost of Material Consumable
- 12. Laundry Fee
- 1. Classify Activity Fees into Various Activities. The activity costs into various activities at Hotel Madani Medan are as follows: Based on Unit-level activity cost. The cost of unit-level activity cost is a definite cost increase when a product unit is in production. That is proportional to the proportion of the volume of the product. This activity is done every day in undergoing lodging services. Activities included in this category are cultivation activities, electricity and water supply and consumption costs.
- 2. Based on Batch-related activity cost the cost of batch-related activity cost is the cost caused by a number of batches that are produced and sold. The size of this fee depends on the frequency of production orders in though by the production function. This activity depends on the number of batches of products in production. Namely the cost of administration, cost of consumables, and the cost of cleanliness.
- 3. Based on Product-sustaining activity cost this cost is the cost used to support the production of different products. This activity is related to the research and development of certain products and costs to keep the product marketable. This activity is not found in the tariff determination of lodging services at Hotel Madani Medan.
- 4. Based on the Facilities-sustaining activity cost. This cost is the cost of supporting capacity at the place of production. This activity relates to activities to maintain facilities owned by the company. Activities included in this category are laundry fees, building maintenance and maintenance facilities.

At this stage, according to Hansen and Mowen (1999; 138), activity costs are charged to products based on the consumption of each product activity. By knowing the BOP (overhead cost) charged to each product, it can be calculated the rate of lodging services per room. According Mulyadi (1993) tariff calculation of each type of room with ABC method can be calculated by the following formula:

Obtained from the total cost charged to each product divided by the number of days spent, While the expectation profit managed by the management of the hotel class.

| Executive Suite  | 35 % |  |
|------------------|------|--|
| Executive Deluxe | 30 % |  |
| Deluxe           | 25 % |  |
| Superior         | 20 % |  |

Courtesy of Madani Hotel Medan 2016

From the above calculation, it can be found that the result of tariff calculation of inpatient services using Activity Based Costing method for Executive Suite class Rp. 511.808,52, Executive Deluxe Rp. 491.924,34, Deluxe Rp. 392.805,66, and Superior Rp. 360530.42. From the results obtained can be compared the difference between the price of lodging services which have been determined by the Hotel management by using the calculation approach of Activity Based Costing.

There is a difference between rates determination that have been managed by the hotel with the method of Activity Based Costing. The occurrence of the price differences due to the Activity Based Costing method, charging overhead costs on each product. In traditional cost accounting methods the overhead cost of each product is only charged to one cost driver only. As a result there tends to be a distortion in the overhead charge. While on the ABC method, the overhead cost of each product is charged to many cost drivers. So in the ABC method, it has been able to allocate the cost of activity to each room appropriately based on the consumption of each activity.

#### 5. Conclusion

Based on the results of research and discussion that conducted by the researcher at Hotels. There are some conclusions are stated:

- 1. The calculation of product costs that have been used by hotel management has caused a lot of cost distortion; this is because the consumption of resources in each activity is difference, while the Activity Based Costing method, all costs incurred are charged to the product activity and resources consumed by the product and also use the basis of more than one cost driver.
- 2. The calculation of the tariff of lodging services by using Activity Based Costing approach, done through several stages. That is, the first cost is traced to the activity that incurres the cost and the next stage imposes an activity charge on the product. While tariff is obtained by adding the cost of inpatient with profit that expected by hospital.
- 3. The result of the determination of the tariff of lodging services in the hotels by using Activity Based Costing approach.