

## CHAPTER I

### INTRODUCTION

#### 1.1 Background

Every company in all business fields is faced by strict competition while struggling to earn maximum profit, which is the main reason to run a business. Competition happens when there are more than one company in the same business fields, offering the same products or services, and aiming the same target market. Competition is needed by company to develop their business by making strategic plans to win over the market, developing their competitive advantages, and efficiently financing their business. Competition leads to innovation. Competition also forces companies to focus on their core audience. Healthy competition encourages change which will distinguish company from others. Michel Porter (1980:35-37) suggested building competitive advantage by emphasizing on Cost Advantage and Differentiation advantage. Competitive advantage would happen if the company is able to produce and deliver the products and the same benefits as compared to competitors with lower prices (cost advantage) and or the company is able to offer products and benefits exceed competitors (differentiation advantage).

Hospital is a company engaged in providing health service whose mission and social responsibility is to give the best health service to citizen with adequate ties and infrastructures. But still, hospital needs to seek for profit to improve their services

and facilities by keeping up with the newest technologies which is not cheap. And yet, the competition is not only within other hospitals that differ in services, prices, and facilities but also with the alternative healing centers that offer health services with much lower price than in most hospitals, which targeting the same market area. In order to survive in running the business, a hospital must have an effective cost planning to determine the lowest price possible yet still earn a certain amount of profit to develop their performance.

Dr. Ramelan Naval Hospital in Surabaya is owned by Navy under the operational Navy Health Department. Currently Dr. Ramelan Naval Hospital is 63-year-old which is comprised of: 24-hour emergency installation department, 41 polyclinics of outpatient unit, 653 bed care, comprehensive specialist medical services and subspecialist., Central surgical unit, hemodialysis units, cardiac health centers, unit medical support, general support unit, the plant unit radiotherapy. It also serves as a teaching hospital together: FK.Universitas Surabaya Hang Tuah and Hang Tuah STIKES have been educating qualified doctors and nurses.

One of services offered by hospital is helping patients to deliver their baby safely. There are general ways in delivering babies, natural delivery and caesarean section. Natural delivery is labor that through natural occurrence in the presence of maternal uterine contractions and is traversed by the opening to remove the baby. If it is not possible to do natural delivery for the baby should then the doctor will perform cesarean section. These days it is not peculiar to deliver baby through c-section since

the doctors have found many abnormalities that would harm the mother, the baby, or even both, if natural delivery is performed. Some people who are actually can do the normal delivery also prefer delivering their babies through c-surgery because some said that it is more painless.

Gynecologist may performed different kinds of c-section depends on the patients' abnormalities. Different types of c-section will cost differently and took time differently too. This thesis describes the calculation of time-driven activity based costing in allocating cost of caesarean section in Dr Ramelan Naval Hospital Surabaya in second half period of year 2014.

Determining the cost for each surgery performed is important to decide how much the hospitals need to charge its patients. But most hospital did not do the cost allocating, not even using the Activity Based Costing. In Activity Based Costing, there are several drivers to allocate the cost to its cost object. Because of its difficulties to determine the suitable driver to each activity, it tends to be more costly because the team has to do more survey and interview. In Time Driven Activity Based Costing, it only has one driver, that its time unit. It makes TDABC simpler than the ABC method, and easier to calculate and to modify.

Dr Ramelan Naval Hospital has not implement the time driven activity costing as its unit cost calculation basis of c-section surgery, whilst it is important to do so. By using time equation in TDABC method, time deviation in c- section

surgery caused by abnormalities can be calculated quickly. People nowadays often deliver their babies through c-section surgery, and different abnormalities would cost differently too. By using time driven activity costing the management can easily determine the cost allocation of the overhead by using the time equation in the most general c-section surgery. If any abnormalities were found, the managers can add the time addition to the formula. TDABC is more accurate and takes less time than using the ABC method, which is also harder to modify. TDABC provides detailed information of cost absorption of the current processes, employees' productivity, and patient's profitability. And by using the time driven activity based costing managers can determine the cost of unused activity that can be later used as consideration in decision making.

Through the inclusion of multiple time drivers, the time-driven approach to ABC can capture the complexities of organizations far more simply than the ABC system could, which might well have had to account for varying transaction times by treating each variant of the process as a distinct activity. Hence, TDABC seemingly provides many opportunities to design cost models in environments with complex activities, as in healthcare organizations, and service organizations, in general.

Hospital, just like other companies from other fields, needs to improve their performance. To improve their performance, hospital needs to increase their health service quality, improve their human resource's efficiency and effectivity, and plan

their cost financing effectively. Beside the variety of facilities provided, the price of service also becomes the major consideration to the patients in choosing hospital.

By eliminating the distribution-of-effort survey, the total cost assigned in time-driven Activity Based Costing can be lower than using the Activity Based Costing. The deviation is allocated to cost of unused capacity. Managers can review the cost of unused capacity and determine whether to reduce the cost of reserve that unused capacity cost for future growth.

Previous research done by Nathalie Demeerec, Kristof Stouthuysena, and Filip Roodhooft titled “Time-driven activity-based costing in an outpatient clinic environment: Development, relevance and managerial impact” reveals that TDABC system is proven to provide accurate and relevant information to both healthcare managers and physicians which assisted them in operational improvements, making a profitability analysis per department, deciding on future investments. There is no component that cannot be calculated with TDABC since they only focused on the consultation activity. Other research done by Veyis Naci Tanış and Hasan Özyapıcı titled “The Measurement and Management of Unused Capacity in a Time Driven Activity Based Costing System” concludes that the management of unused capacity will only be effective when the real and compulsory unused capacities per shift are considered. In this research the researcher wants to provide accurate information to Dr Ramelan Naval Hospital managers regarding cost allocation of c-section surgery

using TDABC system and also how to manage the unused capacity and use it for the hospital's improvement.

Based on above background, the researcher decided to make a thesis titled "CALCULATION OF CAESAREAN SECTION SURGERY COST IN DR RAMELAN NAVAL HOSPITAL SURABAYA FOR THE YEAR 2014 USING TIME DRIVEN ACTIVITY BASED COSTING"

### **1.2 Problem Statement**

Based on the background above, the problems that can be formulated are:

1. How to measure the indirect cost of c-section surgery and use it to improve Dr Ramelan Naval Hospital's performance?
2. How is the unit cost calculation of caesarean section in Dr Ramelan Naval Hospital Surabaya using time driven activity based costing?

### **1.3 Objective**

The main objectives of this research are:

1. Measuring the indirect cost of c-section surgery and use it to improve Dr Ramelan Naval Hospital's performance.
2. Calculating the unit cost of caesarean section in Dr Ramelan Naval Hospital Surabaya using time driven activity based costing.



#### **1.4 Research Benefit**

The benefits that can be gained from this research are:

1. To broaden the writer's insight and knowledge of unit cost calculation using time driven activity-based costing and how to measure the cost of unused capacity.
2. To give suggestion to Dr Ramelan Naval Hospital managers and can be used as a consideration for the hospital's management to implement time driven activity-based costing as an accurate basis to determine the unit price (cost of sales) of c-section surgery to avoid cost of unused capacity and use it to improve the infrastructure, also to improve the cost controlling.
3. As consideration or reference to conduct further research.

#### **1.5 Research Systematic**

Generally, this research is consisting of five chapters, which among chapters is related from one to another.

### **CHAPTER 1 INTRODUCTION**

This chapter describes about the research background, the problem formulation, research objective, research contribution, and explanation about research systematic.

## **CHAPTER 2 THEORETICAL REVIEW**

This chapter describes about the concepts and theories that cover the problems outlined. The concepts and theories include job order costing, process costing, activity-based costing, and time-driven activity-based costing. Also, this chapter describes about the previous research relating to research question and model outlined and the theoretical framework.

## **CHAPTER 3 RESEARCH METHODOLOGY**

This chapter describes about the research approach, the scope of research, the type and source of data, data collection procedures, and analysis technique used in solving problems. The object of this research is Dr Ramelan Naval Hospital Surabaya. The analysis techniques for collecting data are interviewing interest parties, documentation, and observation.

## **CHAPTER 4 RESULT AND DISCUSSION**

This chapter describes about the overview of the company and the existing cost accounting system that has been applied, then analyzes the cost components to make the design of Time-Driven Activity-Based Costing of caesarean section surgery. After that, compare it with the initial company's cost accounting system. This chapter also contains the research limitation.

## **CHAPTER 5 CONCLUSION AND SUGGESTION**

This chapter contains conclusion and suggestion from the result of research, conform to the problem in chapter 1 and theories in chapter 2.