CHAPTER 1

INTRODUCTION

1.1 Research Background

Before the emergence of Time-Driven Activity-Based Costing (TDABC), there were two costing system that was commonly used, that are traditional method and Activity-Based Costing (ABC). Traditional method and ABC method are methods that allocate indirect (overhead) costs to products. Traditional method allocates indirect costs to products based on predetermined overhead rate. This method treats overhead costs as a single pool of indirect costs. Meanwhile, according to Carter (2006: 14-1), ABC method is a costing system in which multiple overhead cost pools are allocated using activity bases that include one or more non-volume-related factors.

According to Carter (2006:14-1), compared to traditional method, ABC method represents a more thorough application of cost tracing. Traditional method traces only direct material and direct labor to each unit of output. In contrast, ABC method recognizes that many other costs are in fact traceable but to the activities required to produce output. Because ABC method breaks down indirect costs to many pools, the result of ABC method is more accurate than the traditional method that only uses single pool. But, this also makes the ABC method more complex and hard to implement.

Time-Driven Activity-Based Costing (TDABC) is a new approach of coventional Activity-Based Costing (ABC) that was published by Kaplan and

Anderson in 2007. The development of TDABC method was caused by problems suffered by companies that using conventional ABC method. Kaplan and Anderson (2007: 6) stated that in an annual survey of the adoption of management tools, conventional ABC method ranked below the median, with only a 50 percent adoption rate. For a system that gives companies insights into the cost and profitability of products, processes, services, and customers insights not otherwise available the low adoption rate seemed surprising.

Some companies failed to adopt ABC method, or abandoned the tool, because of behavioral and organizational resistance that accompanies any new idea, particularly one as seemingly radical as to treat most organizational costs as variable and to acknowledge the possibility of unprofitable customers. ABC systems were expensive to build, complex to sustain, and difficult to modify (Kaplan and Anderson, 2007:6).

TDABC method is developed to overcome problems in conventional ABC method. It is simpler, cheaper, and far more powerful than the conventional ABC approach. According to Kaplan and Anderson (2007:9), it simplifies the costing process by eliminating the need to interview and survey employees for allocating resource costs to activities before driving them down to cost objects (orders, products, and customers). It only uses one cost driver, time, to allocate costs, different from the conventional ABC method that requires many cost drivers.

According to Kaplan and Anderson (2007: 9), the application of TDABC method requires only two sets of estimates to assign resource costs directly to the cost objects. First, it calculates the cost of supplying resource capacity. It divides

this total cost by the capacity the time available from the employees actually performing the work of the department to obtain the capacity cost rate. Second, TDABC method uses the capacity cost rate to drive departmental resource costs to cost objects by estimating the demand for resource capacity (typically time) that each cost object requires.

TDABC method uses the same approach with the conventional ABC but using fewer cost drivers so the result of TDABC method will be as accurate as the conventional ABC but TDABC method is faster and easy to implement. Besides that, by comparing the demand for resource capacity and total time available, the unused costs incurred in the hotel can be identified and the efficiency level can be measured. These two advantages are stated by Kaplan and Anderson (2007:13-14) as some of advantages of using TDABC method, that are easier and faster to build an accurate model and provides visibility to process efficiencies and capacity utilization.

The researcher is interested in applying TDABC method with the research object of a hotel. Hotel is included in hospitality industry. According to Jagels and Coltman (2004: 4), a hospitality operation tends to be highly departmentalized with separate operating divisions that provide rooms, food, beverage, banquet, and gift shop services. Costs directly traceable to a department or division are identified as direct costs. Indirect costs are those costs not easily traceable to a department or division. In hotel, the allocation of direct costs to room division will cause problems because the costs are difficult to traced to each room type available in the hotel. The researcher feels that TDABC method is suitable to the

hotel because TDABC method can be implemented easily and faster in allocating the costs based on the room type with accurate results compared to the traditional method and conventional ABC method.

Hotel is closely related with the occupancy rate that will vary throughout the year. There will be a moment when the occupancy rate will be high and low. Besides that, according to Jagels and Coltman (2004: 261), if revenue for a room on a particular night is not obtained, that revenue is gone forever. Room revenue and the fixed cost of providing rooms cannot be recovered if a room is not sold. With the variation of occupancy rate that can cause revenue to be lost at any time, the use of costs become important so that the costs will not become useless when a room is not obtained. TDABC method can shows the efficiency level of costs and resources that is important in managing expenditures at certain period, which can not be shown by traditional method and conventional ABC method.

There are some previous research that also use TDABC method with hotel as its research object. However, these two research using TDABC method to calculate the profitability of each customer segments, in contrast with this research that using TDABC method to calculate the cost per room.

Dalci *et al.* (2009) used TDABC method to calculate the profitability of each customer segments in a hotel. For the comparison, Dalci *et al.* took data of profitability customer segments under conventional ABC method done by the hotel. The calculation using TDABC method showed the difference between the capacity supplied and used in the hotel that the calculation using conventional ABC method can not showed. There were 14.48% costs incurred in the hotel that

was considered as unused costs ($303,039 of $2,092,135). This unused costs occurred because not all resources supplied had been actually utilized during the period (only 4,951,146 minutes utilized from the total of 6,130,800 minutes). The calculation also showed that two of eight customer segments were determined unprofitable using a conventional ABC method. This is different with the calculation under TDABC method that all customer segments were profitable. This is because the TDABC cost analysis shows that prices set for these customer groups truly cover the costs of serving them, despite the fact that these customers are low-profit contributors

Hajiha and Alishah (2011) also used TDABC method to calculate the profitability of each customer groups in a hotel. But for the comparison, Hajiha and Alishah took data of profitability customer groups under traditional method done by the hotel. The calculation using traditional method showed that three of six customer segments were determined unprofitable with the largest losses was from group 1 with -35%, followed by group 2 with -21%. Meanwhile, the calculation using TDABC method showed that only group 2 were determined unprofitable with -3%. The largest profitability was from group 1 with 63%, that determined unprofitable using traditional method. According to the analyses, reception, housekeeping, formalities, and food departments have unused capacities which can not be shown by the traditional method.

1.2 Problem Formulation

Traditional method and conventional ABC method have its own advantages and disadvantages. Traditional method is less accurate but easy to implement. Conventional ABC method is more accurate but more complex and hard to implement. TDABC method is a new approach of conventional ABC that is easier to build an accurate model. Besides that, TDABC method can measures the level of cost and resource eficiency which can not be shown by traditional method and conventional ABC.

The researcher feels that hotel is suitable for the application of TDABC method. Therefore, the researcher are interested in applying TDABC method at Hotel "Y" located in Surabaya. The researcher applies TDABC method to calculate the cost per room and the efficiency level of costs and resources. Because the researcher applies TDABC method only for the cost per room calculation, the researcher does not perform the cost calculation of other products offered by the hotel, such as food and beverage, swimming pool, fitness center, and sauna. If the products are included in the room package, the researcher will use the results of cost calculation conducted by the hotel.

Therefore, the formulation of the problems are:

1. How to calculate cost per room using TDABC method at Hotel "Y" Surabaya?
2. How to identify the efficiency level of costs and resources for each activity using TDABC method at Hotel "Y" Surabaya?

3. How is the comparison between the result of cost per room calculation conducted by Hotel “Y” Surabaya and the result of cost per room calculation using TDABC method?

1.3 Research Objectives

Based on the problem background described above, the goal to be achieved is:

1. To identify the unused costs at Hotel “Y” Surabaya.
2. To identify the efficiency level of costs and resources at Hotel “Y” Surabaya
3. To determine the cost per room at Hotel “Y” Surabaya.
4. To compare the result using TDABC method with the result of hotel’s initial calculation.

1.4 Research Contributions

The expected benefits from this research are:

1. Hotel “Y” Surabaya

   The calculation of cost per room in this research can helps the hotel to better understanding the profitability of each room type and assists the hotel in determining the price of each room type. The identification of efficiency level of costs and resources help the hotel manages the costs so that the unused costs incurred in the hotel can be reduced.

2. Academics

This research is expected to provide additional knowledge about the application of TDABC method and can be used as a source in future research.

3. Writer

This research is expected to make the author better understanding in the application of TDABC method, so that in the future, hopefully the researcher can uses TDABC method to a wide range of other industries, not only in the hospitality industry.

1.5 Research Systematic

Generally, the research consists of five chapters, which are related to each other. Here are the summary of each chapter:

CHAPTER 1 INTRODUCTION

The background of this research is TDABC method theoretically can overcome problems occurred while using the preceding cost methods in the calculation of cost per product. In addition, TDABC method also can identify the efficiency level of costs and resources, which can not be identified by the preceding cost methods. Research object used in this research is Hotel "Y" that located in Surabaya. There are two previous researches that related with this research, research that conducted by Dalci *et al.* (2009) and research that conducted by Hajiha and Alishah (2011). These researches also using hotel as its research object. However, these researches use TDABC method to calculate the

profitability of each customer segments, in contrast with the research conducted by the researcher that using TDABC method to calculate the cost per room.

CHAPTER 2 LITERATURE REVIEW

The main theories used in this research are theories about TDABC method and cost behavior. Since this research is about TDABC method, the theories about TDABC method become important part in this research, especially for its application. Then, since the application of TDABC method is performed on the allocation of fixed costs only, the theories of cost behavior also important to understand which cost is included as fixed costs. In addition, the theory about least squares method is also included to separate mixed costs to variable costs and fixed costs. This chapter also describes about research propositions and conceptual framework outlined.

CHAPTER 3 RESEARCH METHODOLOGY

This research is qualitative research approach based on Robert K. Yin. There are two research methods used in this research, descriptive case study and experimental case study. Descriptive case study is used to describe cost method currently used by Hotel "Y". Experimental case study is used to evaluate the applicability of TDABC method. Since there are two research methods, there must be two data analysis strategy used in this research. Analysis strategy which developing a case description is used in descriptive case study. Meanwhile, analysis strategy which relying on the theoretical propositions that lead to the study is used in experimental case study. This research also presents type of data

and its data collection method that conform with the data analysis strategy used in this research.

CHAPTER 4 RESULT AND DISCUSSION

This chapter is arranged based on data analysis strategy in Chapter 3. The first part of this research is about describing the cost method currently used by Hotel "Y". It consists of identifying the steps of calculation that conducted by Hotel "Y". After that, this cost method is analyzed to determine the accuracy of cost per room calculation and ascertain that the efficiency level of costs and resources can not be identified using this cost method.

Then, the second part of this research is about evaluating the applicability of TDABC method. The first step of this part is calculating cost per room and efficiency level of costs and resources using TDABC method. Then, this calculation is analyzed by comparing it with existing cost method currently used by Hotel "Y". In addition, the use of costs and resources is analyzed by using the efficiency level identified by TDABC.

CHAPTER 5 CONCLUSION AND SUGGESTION

The conclusion of this research is the calculation using TDABC method gives better results than the existing costs method, which is used by Hotel "Y". Although the calculations using the existing costs method are easier to do than the calculations using TDABC method, the result of calculation using TDABC method are more accurate than the result of calculation using the existing costs method. In addition, TDABC method can also determine the efficiency level of costs and resources, which can not be determined using the existing costs method.

For the suggestion, it is suggested to apply TDABC method in the calculation of cost of other products, especially for food and beverage products since it would have many benefits for every party related with the research. Beside that, the calculation using TDABC method needs to be updated periodically so that the cost per room will always be in accordance with the conditions occur in the hotel.