

# Implementation of Activity-Based Costing to Increase Profits for Traditional Treatment Providers

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## ABSTRACT

The growth of traditional medicine in Indonesia is so rapid. Traditional medicine serves as an alternative to modern medical treatment, particularly in areas that are difficult to access by modern healthcare services. This paper aims to describe the impact of activity based costing implementation on profitability of traditional treatment. The method for this research is comparative study between pre and post implementation of ABC. For that reason, the method used in this research is one group pretest-posttest design. The number of members in the group is 20 respondents. The results of this paper show that there is a significant difference in profit before and after ABC implementation.

**Keywords:** Traditional medicine, Profitability, Activity based costing, Production cost, Break event point

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## INTRODUCTION

medicine in Indonesia is experiencing very rapid growth. Traditional medicine has become an alternative to modern medicine especially for areas that are difficult to reach by modern health services. Based on data released by the Central Statistics Agency (BPS) in 2019 regarding the results of the National Socio-Economic Survey (SUSENAS), which shows that around 70% of Indonesian people still use traditional medicine as a public health service option. This result is also in accordance with the latest data released by the Central Statistics Agency (BPS) which shows that in the first quarter of 2020, there was an increase in demand for traditional medicine by 1.32% compared to the previous quarter, even though at the same time there was a decrease in health service activity by 1.32%. 0.29% compared to the previous quarter, due to the COVID-19 pandemic.

Indonesia has various forms of traditional medicine that are commonly accepted and used by the community. Examples of traditional treatments include acupuncture, cupping, reflexology, gurah and herbal medicine. Traditional medicine has received the attention of recent researchers and has good prospects in the treatment of various diseases. Several types of traditional medicine such as acupuncture, cupping, reflexology and herbal medicine have been proven to be effective in helping treat various health conditions. Traditional medicine has become popular among Indonesian people, especially for those who have financial limitations or want to avoid the side effects of chemical drugs. In addition, Indonesia has a Research and Development Center for Medicinal Plants and Traditional Medicine which conducts research on the quality and effectiveness of traditional medicine.

Traditional medicine entrepreneurs in Indonesia currently still use simple production cost calculation methods, namely calculating the price of raw materials and labor costs alone without taking into account overhead costs. This causes suboptimal selling prices and minimal profits. From this problem, a simple process of calculating production costs without considering overhead allocation costs can reduce profits. Therefore, technology is needed that makes it easier to calculate basic production costs. Next in this community partnership activity is how to implement activity based costing to increase profits from therapy services for business groups at the Indonesian Usada tourism association which is headquartered in Kec. Bekasi Sel., Bks City, West Java.

The contribution and benefit obtained by the target group, namely the paricara who are members of PPUIN, is the use of the results of implementing Activity Based Costing technology as a solution for determining costs in partnership with the Indonesian Usada Paricara Association (PPUIN) which is headquartered in Kec. Bekasi Sel., Bks City, West Java

Based on the results of a survey of partner conditions, the calculation of service costs only uses direct costs as the basis for calculating production costs, such as raw material costs and direct labor costs, without taking into account overhead costs. For example, overhead costs worth 100 million rupiah are allocated to cupping services and herbal concoction services, and the direct costs for these services are 500 million rupiah and 1 billion rupiah respectively. Thus, overhead costs allocated to cupping services amounted to 33.3 million rupiah ( $100 \text{ million} \times 500 \text{ million} / 1.5 \text{ billion}$ ) and to potion services amounted to 66.6 million rupiah ( $100 \text{ million} \times 1 \text{ billion} / 1.5 \text{ billion}$ ).

Based on the ABC method, it is known that the total overhead costs are 100 million. Based on the results of identifying activities (drivers), the drivers used are the number of working hours for each activity. For this reason, the calculation of overhead costs per working hour. Overhead costs per working hour for the production of cupping services is  $100 \text{ million} / 1800 \text{ hours} = 55.6 \text{ thousand rupiah/hour}$ , while overhead costs per working hour for the production of potion services is  $100 \text{ million} / 1800 \text{ hours} = 55.6 \text{ thousand rupiah/hour}$ . As a result, allocate overhead costs to each

activity. Overhead costs for the production of cupping services are calculated by multiplying the overhead costs per working hour by the number of working hours for the production of cupping services, namely 55.6 thousand rupiah/hour  $\times$  856.2 hours = 47.6 million rupiah. Meanwhile, overhead costs for the production of potion services are calculated by multiplying the overhead costs per working hour by the number of working hours for the production of potion services, namely 55.6 thousand rupiah/hour  $\times$  9425 hours = 52.4 million.

The focus of the community partnership program is (1) Increasing the accuracy of calculating production costs for the services offered, namely by implementing ABC in cost calculations so as to increase company profits, and (2)

Improving marketing management by implementing the BEP-based sales target calculation method so as to increase sales (revenue).

Priority problems relate to *the digital economy*. Currently, the calculation of service costs and Paricara's concoction is done simply, that is, it only uses direct costs as a basis for calculating production costs, such as raw material costs and labor costs direct, without consider cost overheads in a way accurate. Matter This bring up Priority problems are conventional aspects in determining production costs so that para in fact, it is very difficult to determine the right production price and a fair selling price. So that it is necessary to have a solution to facilitate the process of increasing accuracy and cost accuracy production and price sell is digital based, namely the ABC Platform.

Problem priority the following related with *health independence*, ie preparedness traditional health services to be accessed by people who need treatment traditional. Irresilience economy service health traditional in determine budgetsales, will decrease, causing losses and bankruptcy. The difficulties of the speakers determining the number of sales/sales targets requires a BEP analysis platform forestimate the number of sales. The practice of paracaras who simply run a business with Waiting for the number of patients can disrupt access to health services due to determination unfair costs, even though it is necessary to know the target number of patients and marketing strategies in order minimum according to the break-even point.

The main strength is that PPUIN (Indonesian Usada Paricara Association) has the availability of quite a large number of healers and the availability of various medicinal plants around the community. Furthermore, the solution to the problem of determining production costs and marketing management aspects, especially determining sales targets for BEP, can be resolved with the following solution,

### **Solution for determining production costs**

To increase the accuracy of production costs and selling prices, where the current calculation process still uses traditional methods, then to increase the accuracy of costs and selling prices by using ABC (Activity Based Costing) technology. Based on the traditional approach, the gross profit obtained is Rp. 1,000,000, whereas using the ABC approach, the gross profit obtained could be Rp. 3,000,000. This is because

with the ABC approach, factory overhead costs are allocated to activities according to the cause of the overhead costs, so that the actual costs required for each activity can be identified more accurately.

Based on recent studies, the use of the ABC method in traditional medicine in Indonesia can help optimize benefits and minimize losses. This study shows that with ABC, traditional healers can allocate overhead costs more accurately and efficiently, so that the selling price set is more accurate and can increase profits.

### **Marketing management solutions**

To increase sales, further training is provided in determining sales targets and better marketing management. BEP analysis is a useful method in determining accurate sales targets and appropriate marketing strategies. Recent research shows that the use of BEP analysis in businesses in Indonesia can help increase profits and avoid losses because entrepreneurs can determine more accurate and effective sales target numbers and marketing strategies, thereby increasing profits.

A traditional medicine business has operational costs of IDR 10 million per month, with a selling price per patient of IDR 50 thousand. Without using BEP, business managers only rely on the number of patients who come each month to determine profit or loss. If in a certain month the number of patients who come is 200 people, then the business income will be IDR 10 million (200 × IDR 50 thousand). However, if in the following month the number of patients who come is only 100 people, then the business income will only be IDR 5 million (100 × IDR 50 thousand). This can cause uncertainty in determining profit or loss, as well as difficulties in carrying out long-term business planning.

Meanwhile, if you use BEP, business managers can determine the break-even point, namely the number of patients that must be served so that operational costs

sufficient and does not suffer losses. In this example, the BEP formula can be calculated as follows:

$$\text{BEP} = \text{Operating Costs} / \text{Contribution Margin}$$

$$\text{Contribution Margin} = \text{Selling Price per Patient} - \text{Variable Costs per Patient}$$

If variable costs per patient are assumed to be IDR 10 thousand, then the contribution margin per patient is IDR 40 thousand. So, BEP can be calculated as follows:

$$\text{BEP} = \text{IDR 10 million} / \text{IDR 40 thousand per patient} = 250 \text{ patients per month}$$

By knowing the BEP of 250 patients per month, business managers can determine more effective sales targets and marketing strategies to achieve this *break even point*.

## METHODS

### Activity Implementation Method

To achieve the goal, community service activities take the form of a cost calculation model and determining sales profits to increase business productivity for the SME group through hands-on training methods. Participants can directly experience and understand the appropriate ways to carry out tasks or overcome the problems they face. This method is very effective for improving participants' practical skills and speeding up the learning process.

#### 1. Problems in the production sector

- a. Preparation and Planning, this stage includes several activities consisting of inventorying raw material costs, direct labor costs, and overhead costs
- b. for the production process by members who are members of PPUIN.
- c. Provide appropriate *hands-on training and provide solutions for calculating production costs*.
- d. Practical implementation of methods for increasing profits through the application of activity based costing (ABC) in determining basic production costs. ABC training focuses on using ABC to calculate and proportion overhead costs to products accurately and precisely, so that product prices can be determined properly in accordance with the specified profit targets.
- e. Program evaluation and monitoring activities are carried out periodically and involve the role of implementers and figures or leaders at PPUIN.

#### 2. Problems in the field of marketing management

To implement marketing management problem solving at PPUIN, the stages carried out are:

- a. Identify sales system problems at PPUIN
- b. Analyze marketing data by partners who are members of the organization.
- c. Conduct training on determining sales targets based on Break Event Point (BEP) analysis. namely related to marketing management. As for training in implementing BEP by practitioners, it is hoped that traditional medicine entrepreneurs will know the expected number of sales targets so that they can obtain the specified business profit.
- d. Monitoring the implementation of training and practicum in stages over the time determined by the team and in collaboration with implementers and figures or leaders at PPUIN.

## RESULT AND DISCUSSION

Implementation of the community empowerment program activities is in accordance with the planned period and schedule. This activity took place on Saturday, September 9 2023 and was held for 2 sessions. The program is implemented in District Bekasi Sel., City Bks, Java West.

In the preparation stage for the Community Partnership Empowerment program, the team visited PPUIN and coordinated with partners. During the visit, the community partnership empowerment team identified problems in the field and determined solutions to these various problems.



(a)

(b)

Figure 1. Coordination with Partner Chair (a) Coordination process for workshop preparation (b)

At the activity implementation stage, the Community Partnership Empowerment Team formulates solutions to problems faced by business practitioners or traditional healers. The solutions offered are as follows:

### 1. Solution for determining production costs

To increase the accuracy of production costs and selling prices, the calculation process currently still uses traditional methods. Increasing the accuracy of costs and selling prices by using ABC (Activity Based Costing) technology can reduce the weaknesses in traditional based cost calculations. Efforts to apply ABC (Activity Based Costing) Technology to achieve a higher level of accuracy. In the traditional approach, the gross profit generated is IDR. 1,000,000, but with the implementation of ABC, gross profit can increase significantly to Rp. 3,000,000. This difference is caused by a more careful method of allocating factory overhead costs in ABC.

In the traditional approach, overhead costs are often allocated roughly, and it is difficult to identify the exact activities that cause the overhead costs. However, with ABC, overhead costs are allocated based on activities according to the cause of the overhead costs. This allows organizations to more accurately identify the actual costs required for each activity.

Apart from increasing the accuracy of production costs, implementing the ABC method also influences selling price determination. With more accurate cost information, organizations can set selling prices that are more in line with actual production costs. This means that the selling prices set with ABC become more accurate, which in turn increases profit margins.

Recent studies also show that the application of the ABC method in traditional medicine practices in Indonesia can provide great benefits. Traditional medicine practitioners can allocate overhead costs more accurately and efficiently. This means that the selling prices they set become more accurate, which can ultimately increase their profits significantly.

Based on recent studies, the use of the ABC method in traditional medicine in Indonesia can help optimize benefits and minimize losses. This study shows that with ABC, traditional healers can allocate overhead costs more accurately and efficiently, so that the selling price set is more accurate and can increase profits.

Thus, the application of the ABC method not only increases accuracy in calculating production costs, but also has a positive impact on selling price determination and overall profits in various industrial sectors.



Figure 2. ABC & BEP Implementation Practicum (a) Practical evaluation process (b)

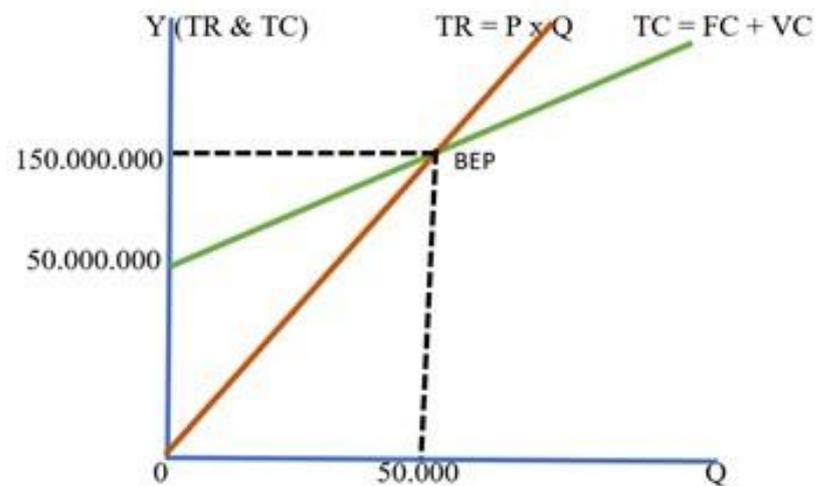
## 2. Marketing management solutions

BEP analysis is a useful method in determining accurate sales targets and appropriate marketing strategies. To increase sales, further training is provided in determining sales targets and better marketing management. Recent research shows that the use of BEP analysis in businesses in Indonesia can help increase profits and avoid losses because entrepreneurs can determine more accurate and effective sales target numbers and marketing strategies, thereby increasing profits.

A traditional medicine business has operational costs of IDR 10 million per month and sets a selling price per patient of IDR 50 thousand. Without using Break Even Points (BEP), business managers only rely on the number of patients who come each month to calculate profit or loss. For example, if in a certain month 200 patients come, then business income will reach IDR 10 million ( $200 \times \text{IDR } 50 \text{ thousand}$ ). However, if in the following month only 100 patients come, then the business income will be IDR 5

million (100 × IDR 50 thousand). This situation can create uncertainty in determining profit or loss, as well as result in difficulties in long-term business planning.

Table 1. Break Event Point Chart



Based on the break event point chart, business speakers will focus on the area above the BEP (Break Event Point). For this reason, understanding the BEP concept will provide higher profit opportunities than without awareness of the BEP.



Figure 3. Training Photos

In implementing marketing management training, MSME players are given material related to information technology-based marketing management, making it easier for the products sold by participants to be easily marketed online and attractive to buyers.

**The Evaluation Phase** is planned to be carried out in October and November 2023. This activity is to assess the implementation of the usaha participants on the

scientific provision that has been delivered through workshops on break event points and balanced scorecards.

Monitoring and evaluation of these activities is carried out online, namely through WA groups and visits to partner locations. The success indicators for this activity are measured using 4 (four) achievement criteria, namely the level of participant participation, level of understanding, level of skill improvement and sustainability.

## CONCLUSION

### Conclusion

Based on the implementation of the Community Partnership Empowerment Program (PKM) with the title implementation of activity based costing to increase profits for traditional healers in Indonesian usada paricara associations, several conclusions are drawn as follows:

1. Efforts to increase partner capacity are related to the application of ABC to calculate product or service costs so that they play an important role in increasing profits from the business processes undertaken.
2. In the marketing context, the implementation team held a workshop that focused on developing BEP-based Marketing Management so that salespeople could calculate sales targets accurately.
3. The Community Service Implementation Team will continue to provide support and assistance to PPUIN . This aims to overcome problems that arise and continue to develop efforts to empower community partnerships in a sustainable manner.

### Suggestion

1. It is important for the academic community, especially in higher education environments, to continuously and consistently carry out community empowerment activities. This aims to produce results that are beneficial to society in a sustainable manner.
2. As a follow-up step to the Community Empowerment Program (PKM), the partners involved hope that cooperation can be increased more intensively with other programs that have the potential to improve the quality of society.
3. Assistance provided by universities and regional governments that have authority should be carried out intensively for business groups that are still facing obstacles, both in terms of management, capital and creativity.

### Thank-you note

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