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Why Accounting is Important for SMEs? (Case Study of Tape Madu Jaya Jember)

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***Abstract*—The objective of this research is to analyze the cost of goods sold calculation for *tape* (fermented cassava) with traditional costing and time-driven activity-based costing (TDABC) approach. The research object is Tape Madu Jaya Small and Medium Enterprises (SMEs) in Jember that are engaged in the food industry. This study used a descriptive qualitative approach through literature study. The results show that the calculation of cost of good sold based on the traditional system and TDABC are different due to the charging of overhead costs on each product. Calculations with TDABC provide accurate information. The results can be used to revise the production cost of each product.**

Keywords— Accounting, SME's

I. INTRODUCTION

In this highly competitive global environment, the cost of corporate knowledge is proven to be the one of an essential aspect for competitive advantage. The emphasis is on placing the company's financial performance, the quality of the order process, and the potential for innovation. Without a thorough understanding of the cost of services, manufacturing, and shipping of the products, a company will not be likely to be going concern. Companies should have the ability to sort out customers, which one is profitable and which one is not profitable and obtain valuable information that will be used to make successful managerial decisions and achieve operational improvements.

Christopher have found that there is a problem within traditional cost techniques due to a lack of customer's type of understanding, which can lead to poor management decisions and misleading information [1]. Activity-Based Costing methods and Time-Driven Activity-Based Costing solved Those weak points. However, even this advanced method is not without flaw. The calculation of activity-based costing (ABC) is much criticized for several weaknesses, including ignoring unused capacity potential, assuming the resource works in full capacity, and indirect costs (overhead) that cannot be charged directly to the product or service (such as employee salaries, wages, overtime pay, health benefits, leave, and bonus and intensive allowances). The weakness of the ABC led to the idea of improving ABC called Time-Driven Activity-Based Costing (TDABC).

TDABC simplifies the calculation process and the allocation of production costs. The cost driver used is the consumption time so that it is easier to implement [2]. Previous research shows the usefulness of TDABC. The service companies, manufacturing, logistics, hospitals, and other non-profit businesses applied this method [3]. Several studies were also conducted in schools [4]. According to Kaplan et.al., TDABC can provide solutions to ABC's weaknesses because of the estimated time required for each activity as the primary cost trigger, called the time driver [2]. Therefore, TDABC is very suitable to be applied in Small and Medium Enterprises (SMEs). That fact encourages researchers to examine how TDABC could be implemented in SMEs. The objective of this research is to analyze the calculation of the cost of goods sold for Tape Processed Products (Tape and Suwar-Suwir) with Traditional and TDABC approach. The object of this research is Tape Madu Jaya Jember. This company has some problems calculating product costs, which still using a rough estimation method instead of the standard costing method.

II. LITERATURE REVIEW

To overcome the difficulties inherent in traditional ABC, Kaplan and Anderson presented a new method of Time-Driven Activity-Based Costing [5]. A revolutionary method in the field of specified costs presented this method. On the other hand, Adkins states that TDABC is not something new, but only a renewal of traditional ABC methods [6]. Given the assignment of activity sources, a new version of ABC uses time equations. The principle of this method based on the transformation of the cost driver for the time equation, which states the time needed to carry out the activity as a driver function. This characteristic called the 'time driver' because it leads to the time consumption of an activity.

Adkins also states that each estimation process is prone to errors [6]. One minute is wrong to note in the estimated time multiplied by thousands of transactions, and the results can be very different. These simple estimation errors may be higher than that and will be under the traditional ABC method. When multiplying the time needed to carry out unit income activities, we can calculate the cost of individual activities and transactions. The time needed to carry out these activities is an estimate for each particular case. The modeling time equation is how the time spent by the activity manages the time driver. In this way, we can calculate the unlimited number of drivers. The equation of time can cover the structure of complications of an activity.

After using the TDABC, we can emphasize the costs of the task section. This method needs to analyze the contents of all activities in its application. We must define all possible variations of running activities and time factors. Thus we can estimate and determine consumption from one factor through

accounting evidence with Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) or by time measurement indicating that only certain vendors can do TDABC [6]. Some significant vendors of cost devices can calculate costs through multiple assignment methods, which can drive costs based on the number of drivers collected or withdraw the cost model based on the equations whose references are automatically updated. Users have the option to choose methods for different parts of each model.

The application of the TDABC method has steps, according to Brugemann [7]: a) Identify the source group that has carried out activities, b) Estimated costs for each source group, c) Estimation of the time capacity of each source group, and d) Calculation of source group costs by dividing the total source cost group with its available capacity. Assessment of time for variations needed in carrying out activities, a) Identify factors that influence the right period of activity (time driver), when we determine factors for each real variation of activity, b) Making time equations, which express dependence on the passage of activity time on all the following factors by recognizing factor values and consumption calculation of total time for each variation of a particular activity. Multiple unit costs from specific income sources with a time of total consumption of particular variations in carrying out the process and summarizing costs for each source of consumption.

The TDABC method has many advantages compared to traditional accounting techniques or ABC methods. This method provides high costs only in the one-time equation, which includes all particular aspects in selecting activities in the company's activity database. TDABC allocates it in a better and fair way for appropriate activities, customers, work areas, or products. TDABC finds the possibility of unused capacity, enables operational improvements, the interaction between time drivers, detecting processes without value and changes in production, loading, shipping, and storage. TDABC is an excellent instrument for designing new competitive supply chain strategies, not only with other members of the chain but also between certain company divisions and as instruments to identify the company's customer profitability and new market opportunities.

III. METHOD

The object of this research is SMEs Tape Madu Jaya Jember that are engaged in the food industry, especially with owners and employees. The managerial system that's not managed makes Tape Madu Jaya in Jember less competitive. The research uses descriptive qualitative. This step is done by observing the object under study and conducting interviews with essential information, the owner and employee directly related to daily business activities, especially finance. Key informants are people who because of their extensive and in-depth knowledge of their community (or outsiders working with a community) can provide valuable data. In addition to using interviews, data obtained from documents on SMEs and related literature [8].

This research is conducted using descriptive qualitative data analysis or descriptive, analytical method, by collecting, preparing, and analyzing data so that it got a clear picture of the problem under study, moreover, also by interpreting facts and information data that has collected through intellectual and empirical understanding. Qualitative analysis is data that appears in the form of words and not a series of numbers. Data that has collected in various ways and which is usually processed before it is ready for use, but the qualitative analysis still uses words that usually arranged into expanded text.

IV. RESULTS

The accounting system can facilitate the owner for his business could increase because all financial transactions have been recorded and have been using the proper method for such business. However, most SMEs are not using the raw accounting system, as well as on Tape Madu Jaya is also not using raw accounting system and not using a particular method for his efforts. Whereas the system of accounting is a tool that can be used to provide financial information about an organization. The result of this accounting system can be used as a basis for making decisions for the organization to make it more better.

SMEs owner argues against the accounting system is a complex system, which should do everything logging with detail, so SMEs Tape recording in a robust Madu Jaya only records the transaction expenses in the form of a purchase. The recording of sales transactions is not recorded. The recording of expenditures in the form of the purchase of this done because so owners can calculate how the amount has been spent to get the sale price. SMEs do not use Honey Tape Jaya accounting system that should be used raw, and logging is done still belongs to the very simple and less meet the standards, so that in drawing up the financial statements would be very difficult.

Financial statements made by SME owners are not accurate, because the report only lists the amount of money flow in and out, without an income statement or the balance sheet by the applicable rules.The existing system is accurate cannot explain the financial position of SMEs, and the owner will have difficulty in fulfilling one of the conditions of filing a loan from a financial institution, namely the existence of a minimal financial report balance sheet. With the system on SMEs, the logging is not done with complete, so often there is loss or damage which may not be too felt its effects directly by the owner, but if this continues will undoubtedly have an impact less well to smooth business

A. *Process of Production*

Tape and suwar-suwir is food made from processed cassava raw material in such a way that it becomes a typical food. The cassava processed into tape has a very high-calorie content even though the substance transformed into the iron (Fe) content of zero. The materials used to make the tape cassava, among others, water, banana leaves, cassava, and doughy yeast.

"To make a good quality tape to choose good quality cassava anyway. I always control the quality of cassava that became the raw material. I chose the yellow cassava. " (Interview June 4, 2018).”

"Jember has a product typical of the tape that is named Suwar-suwir. It used the rest of the processed cassava raw material to tape." (Interview 5 June 2018).

B. Calculation of Production Cost

Production costs are the costs used in the production process includes the cost of raw materials, direct labor costs, and factory overhead costs totaling more than other types of fees. The production cost is costs that occur for processing raw materials into a finished product ready for sale. Mulyadi emphasized the costs incurred for processing the raw products into finished products. These costs are the sum of direct materials, direct labor wages, and factory overhead costs.

Production costs used to calculate the cost of the finished product and the cost of the product at the end of the accounting period, is still in process. The cost of production classified into three types, which are also the main elements of the production costs, including, 1) Raw materials, it is the material cost directly used in production in order to realize a range of finished products to be a sale, 2) Direct labor, It is the costs that placed and harnessed in addressing activities process the finished product directly in activities accompanying the production of handles all business and production equipment, and 3) Factory Overhead, it generally defined as the indirect materials, indirect labor, and factory cost other that are not easily defined or charged to a raw material cost or direct labor cost.

The production cost for each product that is calculated by the owner of the Tape Madu Jaya can be summarized in Table 1.

Table 1. Cost of Production

	Tape	**Suwar-suwir**
Raw material	1.750.000	124.000
Direct labors	1.237.500	412.500
Factory overhead	1.950.000	30.000
Total	4.962.500	566.500

The sale price for each product is summarizes in Table 2.

Table 2. Price of production

	Tape	Suwar-suwir
Sale price	15.000	35.000
Amount of production	400	20
Total	6.000.000	700.000

Gross profit is obtained from the production is summarized in Table 3.

Table 3. Profit

	Tape	Suwar-suwir
Revenue	6.000.000	700.000
CoGS	4.962.500	566.500
Gross profit	1.037.500	133.500

The owner of the tape informs that: "From 500kg cassava, production of tape which meets the standards of some 400 pack. It can be sold in Rp. 15.000/pack. The rest of cassava, for example, shape, is not good, I use for raw materials suwar-suwir.” (Interview on 9 June 2018).

About the cost of telephone and electricity, the owner says "I was hard to calculate how much it costs the telephone and electricity. My average monthly payphone expense as Rp.150.000,00. Electricity is around Rp.250.000,00. If the water uses a water pump. " (Interview on 9 June 2018). "Yes, more use for households. Maybe, if calculated in percentage, the factory about 30%. Just for an explanation. " (Interview June 11, 2018).

Additional information may be summarized in Table 4.

Table 4. Other Cost

Description	amount	Rupiah
Rest of cassava	30 kg	240.000
Telephone	1/3	3.333,33/day
Electricity	1/3	2.777,77/day
Transportation		75.000/delivery
Depreciation		Rp.1.389/day

By adding the information, then the counting of income companies can be recalculated in Table 5.

Table 5. Profit Calculation

	Tape	Suwar-suwir
Revenue	6.240.000	700.000
Cost of goods sold	4.962.500	566.500
Gross profit	1.277.500	133.500
Depreciation	4.167	1.389
Telephone	10.000	3.333,33
Electricity	8.333,31	2.777,77
Transportation	75.000	75.000
Profit	1.189.999,7	50.999,9

This profit information addressed by the owner statement "For me, the important thing is not loss and business can go on. Indeed thin its profits, but it has been 30 years of effort, I was able to buy a car and send the kids to College. " (Interview 28 June 2018). "If for suwar-suwir, a raw material I do not buy. I put on the rest of cassava." (Interview 28 June 2018)

SMEs generally own the attitude of the owner. They do not think of how much profit their business because the important thing is the effort can going concern. When measured for a month then the profit the company can do the five times the production of the tape, and five times the production of suwar-suwir. Thus the total one-month profit was Rp. 6.427.497,00 with calculation in the Table 6.

Table 6. Each Product Profit

	Tape	Suwar-suwir
Profit	5.949.998,5	254.999,5

Cost calculation by the method of TDABC requires an understanding of the activity performed to produce. The first step in calculating the cost of the product by using the method is to identify the costs and TDABC activities that occur.

After understanding the activity that is the case, then do direct allocation costs based on Identifying the costs, including indirect costs or direct cost and indirect cost or indirect cost. Direct cost is a cost that occurs in the production process. Indirect costs are costs that are not directly related to the product.

Tape Madu Jaya shows that almost the entirety of the costs can be charged directly to the product. The series production process makes it easy to charge into the product. Factory overhead burden can also be allocated with serials immediately because of the production process. Counting the cost of the product will not dispute many of the between time-driven activity-based costing with the conventional.

TDABC using the equation of time obtained from the results of the mapping of business processes. TDABC directly charge the resource costs to activities and transactions. To process direct charging, TDABC requires only two parameters, namely: (1) charge rate capacity in specific departments (capacity cost rate), and (2) the use of capacity by every transaction performed in a particular Department (capacity usage by each transaction).

Based on calculations, each product shows the existence of a distortion of the admission fee that is causing the error in determining the cost of production. Product tape recognized too low. For one-month cost difference caused by the difference in recognition of depreciation, telephone, electricity, transport, and labor is the registration (2,240,157.60). Recognition with traditional methods is too low, so that has corrected by adding a certain amount of that number. The company's earnings can be corrected in Table 7.

Table 7. Corrected profit

	Tape	Suwar-suwir
Profit	5.949.998,5	254.999,5
Correction	-265,240.02	1,061,133.94
Corrected profit	3,684,758.48	1,316,133.44

With allocation based on time, Tape Madu Jaya should produce suwar-suwir because it gives a more significant margin compared to tape. The results showed in Table 8.

Table 8. Ratio Profit to Revenue

	Tape	Suwar Suwir
Revenue	6,240,000.00	700,000.00
CoGS	5,338,736.26	380,648.35
Gross profit	901,263.74	319,351.65
Depreciation	5,437.35	768.32
Telephone	8,000.00	4,000.00
Electricity	10,874.70	1,356.64
Transportation	150,000.00	50,000.00
Profit	726,951.69	263,226.69
	0.12	0.38

In general, it relates to the existence of a significant understanding gap in some items such as research instruments, collecting data techniques, and difficulties in understanding the job discription of each student while in the field, clarified the importance of field studies regularly during the learning process. In addition, seeing the behavior of students who can learn many things in the real world also provides very significant support in the implementation of fieldwork as a program that is needed for students to continue to process based on the worldview in which they live and will face them in the future.

V. CONCLUSION

The cost of production Tape Madu Jaya is not using financial accounting standards. Calculation of the cost of this production is by way of summing all the fixed costs and variable costs. The traditional system of using the number of units produced as primary in the calculation. With the traditional system of retrieved results calculation cost of production per unit in June 2018 is to tape is Rp. 4.962.500,00 and Suwar-suwir is Rp.566.500,00. The results of calculations with TDABC showed production cost that shows different results. The production cost of Tape products for less high than you should Rp. 5.338.736,26 while Suwar-suwir of Rp. 380.648,35. TDABC give more significant results for tape, while for suwar-suwir delivers results. The difference between the cost of production based on traditional systems and TDABC due to the charging of factory overhead costs on each product.

Some limitations of this study are like most SMEs; the owner of Madu Jaya Tape has not implemented detailed cost records. This causes difficulties in cost data collection. Future research needs to be carried out on companies that have implemented a standard cost accounting system so that the collection and classification of costs are well measured. There has been no clear separation of company assets and the owner's wealth. Future research needs to separate the owner's wealth and company wealth so that the assessment of costs and performance can be applied.

REFERENCES

[1] Christoper, M.1998. *Logistic and Supply Chain Management: Strategic for Reducing Cost and Improving Service Financial Time Prentice – Hall.* Great Britain.

[2] Kaplan, R., Narayna, V.G., 2001. *Customer Profitability Measurement and Management*, Boston: Harvard Business School Press

[3] Siguenza-Guzman, L., Van den Abbeele, A., Vandewalle, J., Verhaaren, H., & Cattrysse, D. (2013). Recent evolutions in costing systems: A literature review of Time-Driven Activity-Based Costing. *ReBEL-Review of Business and Economic Literature*, 58(1), 34–64.

[4] Yilmaz, R. (2008). Creating a profit-focused organization using Time-Driven Activity-Based Costing. In *EABR & TLC Conferences Proceedings* (p. 8). Salzburg, Austria: Clute Institute for Academic Research.

[5] Kaplan, R and Steven R. Anderson, 2007. *Time Driven Activity Based Costing: A Simpler and More Powerful Path To Higher Profits*, Boston, Mass: Harvard Business Publishing.

[6] Adkins, T. 2008. *Activity Based Costing Under Fire Five Myths About Time-Driven Activity-Based Costing.* Beye Network, http:// www.b-eye-network.com/view/7050.

[7] Brugmann, W. 2005. *Modeling Logistics Cost Using TD-ABC: A Case In a Distribution Company.* University Ghent, Faculty of Economic and Business Administration, http: // ideas.repec.org/p/rug/rugwps/05-332.html

[8] Indiantoro, Nur & Bambang Supomo, 2002. *Metodologi Penelitian Bisnis untuk Akuntansi dan Manajemen, Edisi Pertama*, Yogyakarta: BPFE