GIJEA
Greenation International Journal of Economics and Accounting
+62 81210467572 https://research.e-greenation.org/GIJEA greenation.info@gmail.com
GREENATION RESEARCH

DOI: https://doi.org/10.38035/gijea.v3i1

Analysis of The Cost of Production of Tofu by Using The Full Costing Method (Case Study at Tofu Factory)

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Abstract: Accurate determination of the cost of goods produced is very important for business actors to know the amount of costs incurred in the production process and as a basis for setting selling prices. This study aims to analyze the calculation of the cost of production of tofu using the full costing method in a tofu factory. The full costing method takes into account all production costs, both raw material costs, direct labor, and fixed and variable factory overhead costs. This research uses a case study approach with data collection through observation, interviews, and documentation at the tofu factory which is the object of research. The results of the analysis show that the calculation of the cost of production using the full costing method provides a more complete and accurate picture compared to the method that has been used by the factory. Thus, the application of this method can help business owners in making selling price decisions, evaluating cost efficiency, and increasing company profits.

Keyword: Cost of Goods Manufactured, Full Costing, Tofu, Production Cost, Case Study

INTRODUCTION

The current economic development in Indonesia has directly encouraged business competition in various fields, all industries or companies are all competing to improve the quality of their production quality in the form of goods and services, the main goal is to get the maximum profit or profit possible. Companies to be able to develop must go through a struggle and be supported by careful planning in dealing with various problems and obstacles that arise, such as operational, financial, and marketing problems of the products sold. Competition between companies requires companies to continuously make improvements to the quality of goods, services, and efficiency in reducing production costs so that product sales prices remain competitive (Pagestu et al., 2022).

The production factors of the company before carrying out production activities include raw materials that will be processed into finished products. In procuring raw materials, companies can make their own or buy these raw materials from suppliers. Purchasing raw materials is one of the functions of inventory management because it is related to the procurement of goods, both in the form of raw materials, semi-finished materials, and finished materials. Avoiding errors in determining the cost of goods produced requires an

appropriate method. The method that should be used is to use the full cost method (Full Costing) (Srikalimah, 2017). There are several approaches in determining the cost of goods produced, including the full costing method. According to Mulyadi (Mulyadi, 2018) Full costing is a method of determining production costs that takes into account all elements of production costs into production costs, consisting of raw material costs, direct labor costs and factory overhead costs, both variable and fixed.

Full costing is used to improve the accuracy of cost analysis by improving the way costs are traced to cost objects because in this technique factory overhead costs are charged to finished products or to cost of goods sold based on rates determined on normal activities or activities that actually occur. This method calculates fixed costs because they are considered inherent in the cost of goods in process and finished products that have not been sold and are considered the cost of goods sold when the products are sold out so that the company obtains precise and accurate costs and can set competitive selling prices (Srikalimah, 2017).

Definition of Cost and Cost Accounting

The cost is cash or cash equivalents sacrificed for goods or services that are expected to provide current or future benefits to the organization (Mowen, 2009). In a broad sense, cost is a sacrifice of economic resources measured in units of money, which has occurred or is likely to occur for a specific purpose (Mulyadi, 2018).

Cost accounting is the process of recording, classifying, summarizing, and presenting the costs of making and selling products or services, in certain ways, and interpreting them (Mulyadi, 2018). Meanwhile, according to (Halim, 2019) cost accounting is a field of science that focuses on determining the cost of goods produced (cost) to fulfill orders or as merchandise inventory.

Cost Classification

Cost classification in cost accounting is classified in various ways. Generally, this cost classification is determined on the basis of the objectives to be achieved by the classification, because in cost accounting the concept is known: “different costs for different purposes” (Mulyadi, 2018).

Costs can be classified according to:

1. Expenditure object.
2. Main function in the company.
3. Cost relationship with something that is financed.
4. Cost behavior in relation to changes in activity volume.
5. The period of benefit.

Cost Accounting System

The cost accounting system consists of two systems, namely the special order costing system and the continuous production costing system. The selection of the system depends on the characteristics of the company's operations. The information generated by the cost accounting system is used as a basis for determining production costs and selling prices and helps management to plan and control company operations.

Cost of Goods Manufactured

Cost of goods is a term used in financial accounting to describe the direct costs incurred by goods produced and sold in the course of business. Cost of goods is also an important element to assess the success of trading and manufacturing companies. Cost of goods manufactured is the sum of all sacrifices of economic resources used in processing raw materials into finished products (Firmansyah, 2013).

Elements of Production Costs

Production costs are costs associated with the production function, namely costs incurred in processing materials into finished products until finally the product is ready for sale. Cost of goods manufactured has three elements, namely raw materials, direct labor costs and factory overhead costs.

Cost Accounting Cycle

Figure 1 below is the Cost Accounting Cycle of Manufacturing Companies and the Cost of Goods Report from (Sujarweni, 2019)

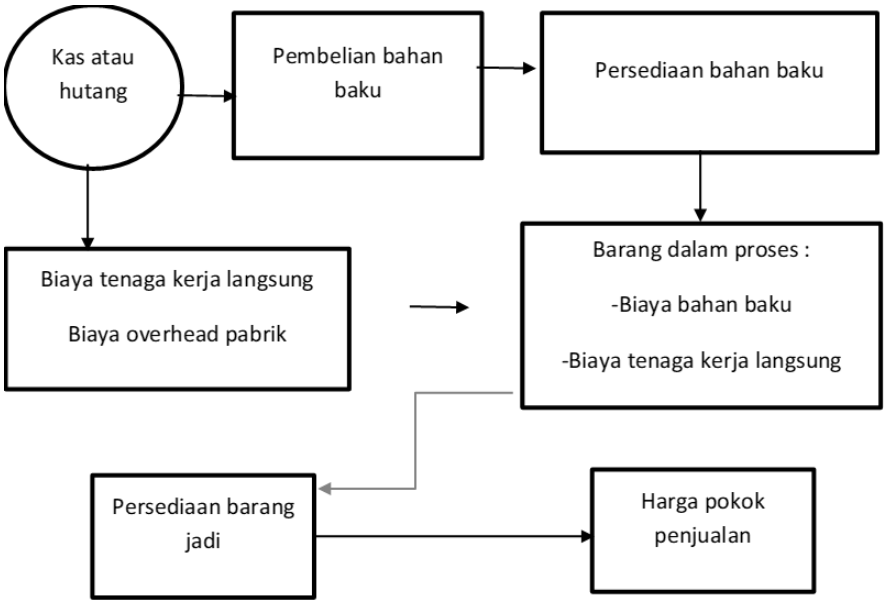

Figure 1. Manufacturing Company Cost Accounting Cycle

The cost accounting cycle in manufacturing companies begins with processing products, product processing begins with preclean and the use of raw materials, together with labor, and factory overhead in production activities, after completion of the process, finished goods will be obtained which are entered in the warehouse and ready for sale.

Financial Performance

Performance can be defined as an overview relating to the level of achievement in carrying out a policy plan activity to achieve goals, vision and mission objectives. Financial performance can be interpreted as an analysis that can be done to see and assess the Company in running its business to what extent it is in accordance with the rules in the implementation of financial operations in the good and correct category (Sukmawati et al., 2022). Financial performance can also provide an overview of the Company's financial position during a certain period of time (Mardahleni, 2017). Financial performance is one of the alternatives to be able to know the company has the ability when making a profit by using all its assets efficiently (Azhar Cholil, 2021).

SWOT Analysis

SWOT analysis is the systematic identification of various factors to formulate company strategy. This analysis is based on logic that can maximize strengths (straight) and opportunities (opportunities), but can simultaneously minimize weaknesses (weaknesses) and threats (thearts). The strategic decision-making process is always related to the development

of the company's mission, goals, strategies and policies. Thus strategic planning (Strategic Planner) must analyze the company's strategic factors (strengths, weaknesses, opportunities and threats) under current conditions. This is called a situation analysis. The most popular model for situation analysis is SWOT analysis.

Differences in Full Costing and Variable Costing Methods

The differences between full costing and variable costing are as follows

Tabel 1. Differences in Full Costing and Variable Costing Methods

Full Costing	Variabel Costing
Aims to show the cost of products that charge all production costs such as fixed costs, direct costs, variable costs, indirect costs, investment and other costs used for the purposes of the production process.	Aims to calculate the total cost required to carry out the production process of a product such as the calculation of raw material costs, labor costs and factory overhead costs.
Using fixed overhead expenses means that the amount of costs will not change despite changes in production volume.	Using variable overhead expenses where the amount of cost will be proportional to the production volume.
The full costing amount will be reported when the product unit is sold.	The amount of variable costing can be reported whether the product has been sold or not.

METHOD

Object of Research

The object of this research is the application of the full costing method in determining the cost of goods produced at the Tagor Kuring Tofu business to allocate raw material costs, labor costs and factory overhead costs accurately and accurately.

This research is a case study at tofu factories in Jambi City, namely Kuring Tofu Factory, Jay Tofu, MB Tofu, Slamet Tofu, Kudli Tofu, Leo Tofu, where case studies focus on collecting information about specific objects, events or activities within a business unit or organization (Sekaran & Bougie, 2016).

Research Type

Research design according to (Hartono, 2013) is a design that leads to a process and results so that the output obtained becomes valid, objective, efficient, and effective. The research method used by researchers is using qualitative methods.

Qualitative descriptive research is that the researcher describes an object to be studied by collecting data and compiling data then analyzing and describing the results of the analysis based on the existing theoretical basis. A qualitative approach is an inquiry strategy that emphasizes the search for meaning, understanding, concepts, characteristics, symptoms, symbols, and descriptions of a phenomenon, is natural, uses several methods, and is presented in a narrative manner (Muri Yusuf, 2014). In this case, researchers interpret and explain the data obtained by researchers from interviews, observations, documentation, to get answers to problems in detail and clearly.

Data Source

Primary data is a research data source obtained directly from the original source (not through intermediary media). Primary data can be in the form of opinions of subjects (people) individually or in groups, observations of (physical) objects, events or activities. Primary data is data obtained directly (Hernando, 2021) by interviewing informants, namely the owner of the Tagor Kuring Tofu Factory.

Place of Research

The place where this research was conducted was at:

1. Kuring Tofu Factory. Which is located at Tanjung Pinang, Behind the Market, Pasar Baru, Jl. Gunung Selamet No.31 Kel, Talang Banjar, Kec. East Jambi, Jambi City, Jambi 36123.
2. Jay's Tofu. Which is located at Jalan Fatahillah, Jambi City
3. Tahu MB. Which is located at Jalan Orang Kayo Hitam Budiman Jambi City
4. Tofu Slamet. Which is located at Jalan Lingkar Timur Kasang Pudak Jambi City.
5. Tahu Kudli. Which is located at Jalan T.P Sriwijaya Kenali Besar Jambi City
6. Tahu Leo. Which is located at Jalan DI Panjaitan Talang Jauh, Jambi City.

Data Collection Methods

Data is something that is obtained through a data collection method that will be processed and analyzed with a certain method which will then produce something that can describe or identify something (Herdiansyah, 2010). In this study, the data collection techniques used were:

1. Interview Technique
   Interviews are activities to obtain in-depth information about an issue or theme raised in the research. The interview in this study is an interview to obtain data on what costs are incurred to produce tofu. This interview uses an interview guide but there is feedback from the respondent that the researcher feels needs to be asked so that the researcher can ask the informant even though there are no questions in the interview guide. This research interview was conducted with Mr. Ade, the owner of the company. To avoid losing information, the researcher asked the informant for permission to use a recording device. Before an in-depth interview is held, the researcher explains or provides a brief overview and background in a concise and clear manner on the research topic (Sujarweni, 2020).
2. Observation Technique
   Observation is an activity to obtain information needed to present a real picture of an event or incident to answer research questions. The observation method is suitable for use in research that uses descriptive data, where the object's behavior is direct. However, the observation method has certain difficulties where this method will be time consuming and challenging for untrained researchers (Sekaran & Bougie, 2016). Observation results in the form of activities, events, objects, conditions or a certain atmosphere (Sujarweni, 2020). Interviews in this study are interviews to obtain data on what costs are incurred to produce tofu.
3. Documentation
   In this study in the form of collecting evidence such as images and writings such as recording data on the cost of production, starting from recording the cost of raw materials to the stage of completion of production in collecting evidence such as images used to collect data on costs that have to do with determining the cost of production at the Tofu Tagor Kuring business.
4. A questionnaire is a data collection tool that gives respondents the freedom to answer questions according to their own thoughts or views, so that researchers can obtain more in-depth or complete information from the respondents.

Data Validation

In this study, to validate the data, the author used triangulation techniques. Triangulation is a data validity checking technique that utilizes something other than the data for checking purposes or as a comparison to the data (Moleong, 2017).

Data Analysis Techniques

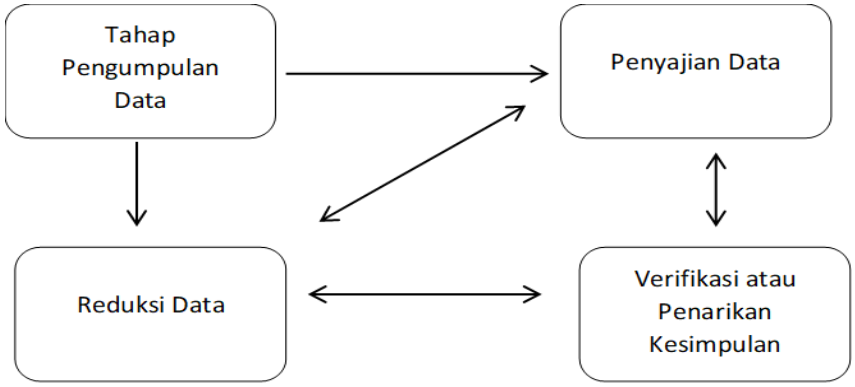

Figure 2. Data Analysis Techniques

The data analysis technique used in this study is qualitative descriptive data analysis. Qualitative descriptive data analysis according to (Sekaran & Bougie, 2016) is a description of the problem being studied using interpretation techniques to translate, interpret and find the meaning of the problems that occur.

In this study, the researcher used an interactive model data analysis technique. The data analysis technique in Herdiansyah (2010) consists of four stages, including:

1. Data Collection Stage
   This stage contains a series of data collection processes that have begun since the beginning of the research, either through interviews or preliminary studies.
2. Data Reduction Stage
   This stage contains the process of combining and standardizing all forms of data obtained into one written form (script) that will be analyzed.
3. Data Presentation Stage
   This stage contains the processing of semi-finished data that is already uniform in written form and already has a clear theme flow into a categorization matrix according to the themes that have been grouped and categorized, and will break down these themes into a more concrete and simple form.

RESULT AND DISCUSSION

Comparison of Cost of Goods Sold

Tabel 2. Comparison of Production Costs of Tofu Factory

No	Factory	Total Daily Cost	Production Quantity	COGS Per Piece
1	Kudli Tofu	Rp. 3.238.000	14,000 Pcs	Rp. 231,29
2	MB Tofu	Rp. 6.307.333	14,000 Pcs	Rp. 456,10
3	Leo Tofu	Rp. 10.885.000	24.500	Rp. 444,29
4	Jay Tofu	Rp. 6.957.333	14.000	Rp. 491,81
5	Slamet Tofu	Rp. 2.386.667	4.000	Rp. 601,17
6	Kuring Tofu	Rp. 4.494.333	7.000	Rp. 642,05

Based on the comparison table of Cost of Goods Sold (HPP) per piece from the six tofu factories, it can be concluded regarding the Cost of Goods Sold (HPP) per piece. The Kudli Tofu Factory has the lowest HPP of Rp231.29 per piece, which is due to cost efficiency and a fairly large production capacity of 14,000 pieces per day. On the other hand, the Kuring Tofu Factory has the highest HPP of Rp642.05 per piece even though its total cost is lower than several other factories, due to its smaller production capacity of only 7,000 pieces per day. The Leo Tofu Factory has the largest production capacity (24,500 pieces) and a relatively competitive HPP of Rp444.29 per piece, indicating that scale efficiency plays an important role in reducing HPP even though its total cost is high.

Comparison of SWOT Analysis Between Tofu Factories

From the comparison of SWOT analysis that has been conducted, it can be seen that each tofu factory has different internal and external characteristics. From the internal side, the main strength possessed by most factories is efficiency in the use of fuel and production equipment. However, weaknesses are still visible in terms of managing operational costs and dependence on unstable raw material prices. From the external side, opportunities for increasing efficiency through technology and cooperation in raw material procurement are very open, although on the other hand the factories also face threats in the form of rising soybean prices and tight business competition. The MB Tofu Factory and the Leo Tofu Factory are factories with greater strengths and opportunities compared to other factories. Both factories have good production efficiency, supported by high quality raw materials and the application of technology that supports reducing production costs. In addition, they also have great opportunities to optimize the use of raw materials in large quantities and apply new technologies. Meanwhile, the Kudli Tofu Factory and the Jay Tofu Factory have weaknesses in terms of cost management and HR efficiency that need to be improved to increase competitiveness. The Kuring Tofu Factory also faces challenges in terms of machine damage and the lack of application of new technology, which hinders their production efficiency. Overall, MB Tofu Factory and Leo Tofu Factory have greater potential to survive and thrive in the face of challenges in the market, while other factories need to focus on cost management and the implementation of new technologies to improve their efficiency and competitiveness.

CONCLUSION

Based on the analysis of financial data from six tofu factories, it can be concluded that the main factors affecting the Cost of Goods Sold (COGS) per piece are production capacity, overhead cost management, and direct and indirect labor costs. Tahu Kudli Factory showed the best performance with the lowest COGS (Rp231.29) thanks to its large production capacity and efficient cost management. On the other hand, Tahu Kuring Factory had the highest COGS (Rp642.05) even though its total cost was lower compared to other factories, this was due to its smaller production capacity. Factories with large production capacities, such as Tahu Leo and Tahu Jay, were able to take advantage of scale efficiencies to lower COGS, although some of them still faced challenges with high labor and overhead costs.

REFERENCES

Alexandro, R., & Uda, T. (2020). Metode Perhitungan Harga Pokok Produksi Tahu pada UKM Krisna Karya Mulya di Palangka Raya. *Jurnal Ilmiah Akuntansi Dan Humanika*, *10*(2), 195. https://doi.org/10.23887/jiah.v10i2.25263

Agustina, E., Syafril, R., & Lina, W. R. (2020). Analisis Perhitungan Harga Pokok Produksi Pada Pabrik Tahu Makmur Dengan Metode Full Costing. *Research in Accounting Journal*, *1*(1), 140–154.

Azhar Cholil, A. (2021). Analisis Rasio Likuiditas Dan Profitabilitas Untuk Menilai Kinerja Keuangan Perusahaan Pt Berlina Tbk Tahun 2014-2019. *Jurnal Ekonomi Manajemen Sistem Informasi*, *2*(3), 401–413. https://doi.org/10.31933/jemsi.v2i3.420

Dhelniati, F., Afla, M., Nurjanna, N., & Suriyanti, L. H. (2022). Analisis Perhitungan Harga Pokok Produksi Dengan Menerapkan Metode Full Costing Pada UKM Pembuatan Tahu. *Research in Accounting Journal*, *2*(5), 621–626.

Firmansyah, I. (2013). *Akuntansi Biaya Itu Gampang*. Dunia Cerdas.

Hartono, J. (2013). *Teori Portofolio dan Analisis Investasi*. BPFE.

Halim, A. (2019). *Dasar Dasar Akuntansi Biaya* (Edisi 4). BPFE.

Herdiansyah, H. (2010). *Metode Penelitian Kualitatif untuk Ilmu Ilmu Sosial* (2nd ed.). Salemba Humanika.

Hernando, R. (2021). Pengaruh Kpemimpinan Struktur Inisiasi Objektif Diagnostic Dan Objektif Interaktif Trhadap Kejelasan Tujuan. *Jurmal Manajemen Dan Bisnis Sriwijaya*, *19*(2). https://doi.org/18(2), 113-120

Mardahleni, M. (2017). Analisis Rasio Profitabilitas Dalam Menilai Kinerja Keuangan Pada Pt. Hanjaya Manadala Sampoerna, Tbk. *Jurnal Apresiasi Ekonomi*, *5*(2), 83–90. https://doi.org/10.31846/jae.v5i2.4

Moleong, L. J. (2017). *Metodologi Penelitian Kualitatfif*. ROSDA.

Mowen, H. dan. (2009). *Akuntansi Manajemen*. Salemba Empat.

Mulyadi. (2018). *Akuntansi Biaya* (Edisi 5). UPP STIM YKPN.

Muri Yusuf, A. (2014). *Metode Penelitian Kuantitatif, Kualitatif Dan Penelitian Gabungan* (1st ed.). Prenadamedia Group.

Pagestu, R., Suryadi, S., & Fitriani, F. (2022). Analisis Biaya Produksi Dalam Menentukan Harga Jual Menggunakan Metode Full Costing (Study Kasus Pabrik Tahu Pak Agus Kota Metro). *In Prosiding Seminar Nasional Penelitian Dan Pengabdian Kepada Masyarakat (Snppm) Universitas Muhammadiyah Metro (Vol. 4, No. 1, Pp. 71-78).*, 71–78.

Rahma, N. (2020). Analisis Biaya Produksi Dalam Rangka Penentuan Harga Pokok Produksi Pada Ud. Caraka Alam Meubel. *Doctoral Dissertation, STIE Perbanas Surabaya*.

Sekaran, U., & Bougie, R. (2016). *Research Metods For Business: A Skill-Building Approach*. Wiley.

Srikalimah. (2017). Analisis Perilaku Konsumen Dalam Keputusan Pembelian Handphone Android. *International Journal of Social Science and Business*, *1*(2), 52–59. https://doi.org/10.23887/IJSSB.V1I2.10581

Sujarweni, V. W. (2019). *Akuntansi Biaya Teori Dan Penerapannya* (Mona (ed.)).

Sujarweni, V. W. (2020). *Metodologi Penelitian Bisnis Dan Ekonomi*. Pustaka Baru Press.

Sukmawati, V. D., Soviana, H., Ariyantina, B., & Citradewi, A. (2022). Kinerja Keuangan Ditinjau Dari Analisis Rasio Profitabilitas (Studi Pada Pt Erajaya Swasembada Periode 2018-2021). *Jurnal Ilmiah Akuntansi Dan Bisnis*, *7*(2), 189–206. https://doi.org/10.38043/jiab.v7i2.3692