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COST EXPORT BRIQUETTES IN MALUKU : WITH ABC SYSTEM METHOD

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Abstract

In Maluku, the basic material for making briquettes is very abundant but has not been utilized to become an export product. For this reason, this study tries to calculate the export costs for briquettes in Maluku using the ABC system method. The research method used is descriptive analysis with data from field and literature studies. Based on the study's results, it is known that to calculate export costs using the ABC method, all activities that occur in processing products and activities needed to export must be known. From the calculation results, the total cost required to produce and export briquettes based on the ABC system method is IDR—298,867,000.00 per container.

Keywords: ***ABC system, Export, Charcoal Briquettes.***

INTRODUCTION

One of the alternative fuels that is famous in various countries is charcoal briquettes. These charcoal briquettes are also popular in Indonesia, especially in the restaurant industry. In addition to being used for domestic purposes, charcoal briquettes also have the potential to be exported abroad. The export of charcoal briquettes is being discussed in the global market. Because one of the most popular and cheaper fuel alternatives is briquettes, for this reason, Indonesia, especially Maluku, has a vast opportunity to build a charcoal briquette industry that can be exported. In Maluku, the basic material for making briquettes is abundant: coconuts. Coconut trees grown abundantly on the coast and unused can be managed into export products. However, coconut farmers in Maluku tend not to be interested in this briquette business due to the lack of information and knowledge about charcoal briquettes and the limited capital resources owned by coconut farmers.

Often overlooked and discarded in traditional markets, coconut shells hold untapped potential as raw materials for innovative charcoal products. This presents a significant opportunity for MSME actors in Maluku to produce coconut shell charcoal briquettes. However, a thorough understanding of the processing process, procedures, and financing is necessary to prepare these for export. Hence, there is a need for research and assessment to calculate the cost of briquette exports. The calculation of production costs and export costs of a product produced by the company must be carried out carefully and accurately so that the company can set competitive selling prices in the global market. Charging each component of production costs on product units through specific methods is important in providing more precise information about production costs per unit. Accurate information on these costs will support management in strategic decision-making, particularly in pricing and operational efficiency. The method in management accounting calculates costs through activities carried out in producing a product is called the *Activity Based Costing* (ABC) *System method.*

The significance of calculating the cost for a product produced and exported to a destination country underscores the need for research in this area. This study was conducted to analyze the cost of exporting briquettes in Maluku using the ABC system. The ABC system method calculates costs through activities carried out in producing a product, which is particularly relevant in this context. This method can provide a comprehensive understanding of the costs arising from the processing and export processes, thereby benefiting researchers, entrepreneurs, investors, and exporters.

RESEARCH METHODS

In this study, the analysis method used is descriptive analysis with data sources obtained from:

1. Field study, where data is collected by:
   a. Field observations carried out directly on the research object
   b. Direct interviews were conducted with parties who had experience in producing charcoal briquettes.
2. Literature studies, through books, read, literature, articles published on Google, videos uploaded on YouTube, tiktok, and Instagram.

The stages that will be passed in this study are as follows:

1. Identification of the stages of briquette production activities
2. Identify the stages of briquette export activities
3. Identify Export Costs Based on Activity
4. The stage of drawing conclusions and suggestions.

RESULTS AND DISCUSSION

Calculating the Export Cost of Briquettes Using the ABC System Method

Calculating the export cost of briquettes using the ABC System method starts by identifying the stages of charcoal production and export activities. After identifying these stages, the calculation of export costs is carried out based on the activities that occur so that the details of export product expenditure can be known. Each stage will be explained below.

A. Stages of Production of Charcoal Briquettes

Several activities must be taken into account when producing charcoal briquettes. From the results of interviews with charcoal briquette MSME owners from Solo Surakarta, it is known that the process of making charcoal briquettes from export-quality coconut shells is carried out through the processing process as follows:

1. Authorship
   Coconut shells or shells are burned in a closed container until they become charcoal. This is done in barrels with small vents to reduce the entry of oxygen so that charcoal can form properly.

Figure 1. Coconut Shell Burning Activity

2. Rounding
   The resulting charcoal is then ground or ground into a fine powder. This process can be done manually or using a charcoal crusher.

Figure 2. Charcoal Refining Activity

3. Filtering
   Charcoal powder is filtered to separate fine grains from coarse or large ones. Only fine charcoal powder will be used in the manufacture of briquettes.
4. Mixing of materials
   To facilitate the printing process, the filtered charcoal powder is mixed with an adhesive such as starch glue in the appropriate amount, e.g., 2.5% of the charcoal's weight.

Table 1. Composition of Charcoal Briquettes

Total Charcoal (kg)	Total Starch Glue(kg)
10	0,25
15	0,375
20	0,5
30	0,75
40	0,1
50	1,25

5. Briquette printing
   The charcoal powder and starch glue mixture will be printed based on the desired size and shape. Briquette molding machines can be used to make the printing process more manageable.

Figure 3. Charcoal Briquette Printing Activity

6. Cut the briquettes
   The molded briquettes are then cut to a uniform length. Briquette cutting tools ensure precise results.

Figure 4. Charcoal Briquette Cutting Activity

7. Drying
   The cut briquettes are then dried. For a faster process, drying can be done in the sun or by heating them in an oven.

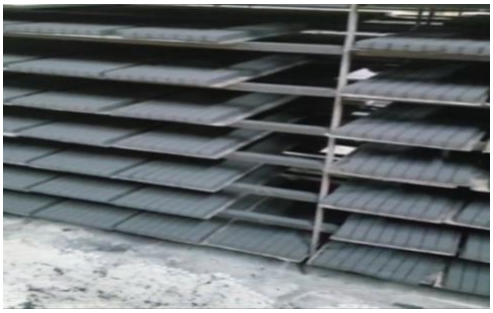

Figure 5. Charcoal Briquette Drying Activities

8. Packing and warehousing
   The next step is to prepare a space for packing that is not too large but large enough to accommodate the finished product. The packaged products are placed in one place or a neatly arranged warehouse to facilitate the distribution of goods.

Figure 6. Charcoal Briquette Packing Activity

B. Stages of Export Charcoal Briquettes

Before charcoal briquettes can be exported abroad, several important documents must be met as export requirements. These documents are required for goods to be shipped from within the country to the destination country. The documents that are required for the export of charcoal briquettes are as follows (in.ig.eksporarangbriket, 2022):

1. SDS
   Safety Data Sheets, or SDSs, are documents issued by product makers or manufacturers that provide important information about hazardous chemicals.
2. *Shipping Instruction*
   Shipping Instructions are a document agreed upon by the first and second parties for the shipping process. The first party is the seller of goods or shippers.
3. SHT *Certificate*
   Self Heating Treatment, commonly called SHT, is a treatment of materials that involves heating with recrystallization temperature over a certain period and cooling in the cooling medium.
4. *Invoice*
   An invoice is a document containing reference data about an item in a trade, namely the product the buyer has purchased and the agreed price.
5. *Packing List*
   A Packing List is a document that contains a detailed list of specifications of goods to be exported to the importing country. This document facilitates checking a container without having to search its entire contents.
6. NPE
   NPE or Export Service Memorandum is the final result of a series of document submissions, starting from data input in the PEB (Goods Export Notification) module to the stage of completing supporting documents.
7. FEB
   PEB, or Goods Export Notification, is a document that notifies customs that the exporter has exported goods.

For charcoal briquette commodities, there are charcoal export procedures that must be passed, namely (ig.eksporarangbriket, 2022):

1. Create a notification letter
2. Register for exports to PEB
3. Submit requirements files
4. Make a tax payment
5. Waiting for the inspection process

C. Briquette Charcoal Export Cost: ABC Method

In doing business, an entrepreneur must undoubtedly know the components of costs incurred to produce a product until the product reaches the buyer's hands. In import and export, exporters need to know the cost components that are also considered so that the price quotation is more appropriate and appropriate. The following are the costs that are taken into account in export costs:

a. HPP Cost (Cost of Production)
b. Bank Charge
c. Transportation costs from warehouse to port (*Trucking*)
d. Forwarder fees
e. Product packaging costs
f. Export document handling fees
g. Terminal *handling charge* (THC)
h. Cost of consumption of sales agents (*Brokers*)
i. Insurance Costs
j. Shipping costs (*Freight*)
k. Export duty fees

l. Warehousing costs
m. Interest and tax costs
n. Other operational costs

In this study, all of the cost components above will be calculated to determine how much the export cost for charcoal briquette products is. The export destination chosen in this study is Saudi Arabia. Saudi Arabia is one of the most potential export destination countries because, according to data, the demand level for imports of coconut charcoal products and their derivatives continues to increase yearly. The following is an estimated export cost for charcoal briquette products with the destination of the export country of Saudi Arabia:

Table 2. Calculation of Export Costs Based on Activity

ACTIVITY	PRODUCTION TYPE	COST
BRIQUETTE PRODUCTION ACTIVITIES		
1. Authorship	Raw Material : - Coconut Charcoal	IDR 6,700/kg
2. Rounding	Depreciation of charcoal crushing machine	IDR. 500/kg
3. Filtering	Depreciation of charcoal powder filtration equipment	IDR. 500/kg
4. Mixing Ingredients	Raw Material : - Starch Flour	IDR. 1,200/kg
5. Briquette Printing	Depreciation of the briquette molding machine	IDR. 500/kg
6. Briquette Cutting	Depreciation of the briquette molding machine	IDR. 500/kg
7. Drying	-	IDR. 500/kg
8. Packing	Plastic Packaging Cost Packaging Box Cost Packaging Printing Cost	IDR. 800/kg
9. Electricity and Water Costs	Electricity Costs Water Cost	IDR. 700/kg
10. Workforce	Labor Wage IDR.300 /kg Total Workforce 5 People	**IDR.** 1,500/kg
TOTAL COST OF PRODUCTION ACTIVITIES (per Kg)		**IDR 13.400/Kg**
TOTAL COST OF PRODUCTION ACTIVITIES (Per Container)		**IDR. 13,400 x (1000kg x 18) = IDR. 241,200,000.00**
BRIQUETTE EXPORT ACTIVITIES		
Export document handling fees	1. SDS 2. SHT Certificate 3. Shipping Intruction 4. Packing List 5. Invoice 6. FEB **7.** NPE	IDR 1,000,000
Bank Charge	Telegraphic Transfer	USD 10 per transfer ($10 x IDR.15.000) =IDR. 150,000.00

Transportation costs from warehouse to port (Trucking)	Transportation costs from warehouse to port	IDR 2,000,000
Forwarder fees	Forwarder fees	IDR 500,000.00
Terminal *handling charge* (THC)	THC Fee (*Full container* 20ft)	USD 95 ($95 x IDR.15,000) = IDR.1.425.000.00/Container
Export duty fees		-
Cost of consumption of sales agents (*Brokers*)	Broker Fees	IDR 8,000,000.00
Shipping costs (*Freight*)	Indonesia to Saudi Arabia	IDR.2.000.000.00
Insurance Costs	Insurance premium cost	IDR. 792.000,00
Other operational costs	Office rental cost Electricity cost Telephone charges Internet fees Promotion fees Marketing costs	IDR.20.000.000.00
Interest and tax costs	Interest and tax costs	**5% x (18,000 kg x IDR. 22,000,00)** **= IDR. 19,800,000.00**
Container Rental Cost	Container Rental	**= IDR. 2,000,000.00**
TOTAL COST OF EXPORT ACTIVITIES		**IDR 57,667,000**

So, based on the calculation results above, the total cost of Export Activities is IDR. 57,667,000. Meanwhile, the overall business cost of export-quality briquettes is as follows:

Briquette Production Activities = **IDR 241,200,000.00**
Briquette Export Activities = **IDR. 57.667.000,00**
Total Business Cost of Briquette Export **= IDR. 298,867,000.00**

Thus, MSMEs who want to open an export-quality shell charcoal briquette business are expected to have a capital value exceeding **IDR. 298,867,000.00.** Although the value of capital looks so large when viewed from the high demand for foreign markets plus the high selling value abroad, which ranges from IDR. 22,000.00 per kg, it still has a large profit. The following are the results of the calculation of the profits of the Briquette Export Business:

= (Selling Price x Number of Goods) – (Production Activity Cost + Export Activity Cost)
= (IDR. 22,000.00 x IDR. 18,000.00) – (241,200,000.00 + 57,667,000.00)
= IDR. 396,000,000 - IDR. 298,867,000.00
= Rs. 97.133.000,00

So if MSMEs send as many as one container of 20ft charcoal briquettes to the destination country, their profit is IDR. 97.133.000,00.

CONCLUSION

The research results show that all activities in processing products and activities necessary to export must be known to calculate export costs. Judging from the results of this study, it is known that the production activity of charcoal briquettes requires a cost of IDR.241,200,000.00, and briquette export activities require a cost of IDR. 57,667,000.00. So, the total cost needed to produce and export briquettes is IDR—298,867,000.00 per container.

SUGGESTION

The results of this study suggest that production and export costs should be calculated using the ABC (Activity-Based Costing) system method. This method's calculation results are much more accurate, allowing prospective briquette export actors to determine the right price and profit.

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