



ANALYSIS OF BUSINESS INCOME FROM STRONGWINE, CASCARA AND GREEN COFFE PROCESSING BUSINESSES IN CENTRAL ACEH (CASE STUDY OF UMKM ASSISTED BY KBQ BABURRAYAN)

Dedy Darmansyah¹, Yoga Nugroho², Rusdi Faizin³, Cut Ana Fitria⁴

^{1,2,3,4}Agribusiness, Faculty of Agriculture, Universitas Teuku Umar

Email: ¹⁾yoganugroho@utu.ac.id

Abstract

The purpose of this study was conducted to analyze the level of profit in the business of processing Arabica coffee derivative products at the KBQ Baburrayan UMKM in Berawang Dewal Village, Central Aceh, where this analysis can find out in detail the costs of production, income, business income. This research was conducted for about 4 months from August to November located in Central Aceh. Data sources in this study used primary data obtained by conducting direct interviews with business owners using a list of questions that had been prepared, and secondary data obtained from literary studies, written sources and agencies at the research location. The method used in this research is a case study method with quantitative descriptive analysis, using an analysis of the calculation of total costs, total income, revenue, R/C ratio. The results showed that the total production cost for strong wine was Rp. 4,044,453, -/month, total income of Rp. 13,000,000, -/month, and income Rp. 8,955,547, -/month. Cost calculation for cascara products, the total production cost is Rp. 4,450,734, -/month, total income Rp. 33,000,000, -/month, and income Rp. 28,549,266, -/month. The results of calculations on green coffee products total production costs of Rp. Rp. 2,475,773, -/month, total income of Rp. 5,250,000, -/month, and income of Rp. 2,774,227, -/month. From the results of the R/C Ratio analysis of the three arabica coffee derivative products, the average R/C Ratio gets a value of more than 1 ($R/C > 1$), namely the strong wine product gets a value of 3.21 which means the business is profitable, for cascara products it gets the R/C Ratio value is 7.

Keywords: *Income Analysis, Arabica Coffee Derivatives, Processing Business.*

1. INTRODUCTION

Agriculture is one sector that contributes greatly to the Indonesian economy. The contribution of the agricultural sector to national gross domestic product continues to increase every year, as a food-producing sector. The agricultural sub-sector that has contributed the most to GDP growth is the plantation sub-sector which is a supporter of the Indonesian economy. The Central Statistics Agency (BPS) noted that national economic growth in the second quarter of 2022 grew 5.44 percent. The agricultural sector is the sector that contributes the most to the Indonesian economy. This can be seen from the size of the distribution and share of agriculture which reached 12.98 percent or grew steadily by 1.37 percent. It was recorded that the growth factor of the Agricultural Exchange Rate (NTP), which reached 3.20 percent, had an effect on people's income. About this thing, Minister of Agriculture Syahrul Yasin Limpo (Mentan SYL) (2022) said that the agricultural sector for the past three years has been a bearing for the economy which has had positive growth while other sectors have experienced a slowdown. According to him, this happened because agriculture is a definite choice in strengthening the economy.

Coffee is one of the leading commodities in the plantation sub-sector. Economically, the coffee commodity is seen as a plantation crop commodity that has high economic value and a strategy for equal distribution of income so that it has a sizeable contribution in improving the welfare of farmers in remote areas, providing employment opportunities or opening new jobs, and

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also provides foreign exchange income. country. Therefore the potential for coffee development in the region is needed to support increasing the welfare of farmers (Junaidi and Yamin, 2010).

Coffee production centers in Indonesia in 2021 namely, South Sumatra, Lampung, North Sumatra, Aceh, Bengkulu, East Java, South Sulawesi, Central Java, East Nusa Tenggara, West Java. Aceh Province is the fourth largest coffee producing region in Indonesia, with total coffee production throughout 2021 reaching 74,219 tonnes. The area of coffee land in Aceh is 126,289 hectares, all of which are in the form of smallholder plantations. One of them is coffee production in Aceh Province, namely, in Central Aceh and Bener Meriah Regencies which are coffee production areas that have long been recognized as one of the best coffee bean producers in the world. Arabica coffee is one of the leading commodities originating from the Gayo Highlands, Central Aceh, Indonesia. It has received Fair Trade Certified™ from the International Fair Trade Organization on May 27 2010, Gayo coffee received an IG certificate (Geographical Indication) submitted by the Indonesian Ministry of Law and Human Rights. Gayo Arabica coffee is the world's best organic coffee that has strong character and taste. The strong body and aroma make Gayo Coffee popular in the Americas and Europe. Arabica coffee received the highest cupping score at the Indonesian Coffee Special Auction Event on 10 October 2010 in Bali.

The Baitul Qiradh Baburrayyan Cooperative is one of the coffee producers in Central Aceh which was founded more than twenty years ago with minimal capital, but in 2005 the cooperative found investors and started exporting coffee abroad. The Baitul Qiradh Baburrayyan Cooperative has succeeded in guiding coffee farmers to produce world-class quality commodities. KBQ Baburrayyan is a cooperative that operates in the field of selling coffee, the cooperative buys coffee in random form from farmers who are collected by collectors. The Baitul Qiradh Baburrayyan Cooperative has started exporting Gayo Arabica Coffee to the European continent and has been exporting coffee to several other countries. Not only exporting, the Baitul Qiradh Baburrayyan Cooperative also creates jobs for KBQ Baburrayyan assisted farmers, namely one of the UMKM assisted by kbq Baburrayyan which produces derivative products from Arabica coffee. The presence of MSMEs creates job opportunities for small farmers. According to Hasbi and Priatna (2004) that the development of agribusiness and agro-industry can increase employment opportunities, processing agricultural products, increasing farmers' income, and developing the people's economy in rural areas.

Opportunities to develop processed coffee fruit products by farmers are still wide open and advances in science are realizing the advantages of coffee found in the Gayo highlands, which is coffee that is recognized worldwide both in taste and quality. Coffee is a food ingredient that can be made into various products, one of which is product innovation derived from coffee fruit, namely strong wine made from coffee fruit starch, cascara which is made from coffee fruit skin.

The idea to process Arabica coffee derivative products arose from the weaknesses in the products that had been produced. The idea emerged to innovate the strongwine product from the weakness of Arabica wine coffee which lacked a lot of interest, so the idea emerged to process fermented coffee beans with the addition of other ingredients. Cascara is a processed product from coffee husks, the utilization of coffee skins into products is an effective thing because there are many coffee skins that are not utilized. Green coffee is green coffee powder that is processed from green bean peaberries which has many benefits. The products above are some of the innovations developed by UMKM KBQ Baburrayyan. The above products are processed from coffee plantations which have a high selling value. In this income analysis, researchers took 3 products,



namely Strongwine, Cascara, and Green Coffee which is processed from Arabica coffee cherries cultivated at the UMKM KBQ Baburrayyan. Strongwine, Cascara and Green Coffee products are products that contribute greatly to increasing the business's income. Which has its own advantages of these products so much in demand. The income analysis of the three products aims to find out which product has the most profit. Plantation products have good prospects for development. The prospect is like the growth of the downstream to upstream industry which creates jobs, increases the income of farmers with high selling prices, the availability of large enough land and produces a variety of processed products that meet the needs of the community (Haryanto, 2012). and Green Coffee which is processed from Arabica coffee fruit which is cultivated at UMKM KBQ Baburrayyan. Strongwine, Cascara and Green Coffee products are products that contribute greatly to increasing the business's income. Which has its own advantages of these products so much in demand. The income analysis of the three products aims to find out which product has the most profit. Plantation products have good prospects for development. The prospect is like the growth of the downstream to upstream industry which creates jobs, increases the income of farmers with high selling prices, the availability of large enough land and produces a variety of processed products that meet the needs of the community (Haryanto, 2012). and Green Coffee which is processed from Arabica coffee fruit which is cultivated at UMKM KBQ Baburrayyan. Strongwine, Cascara and Green Coffee products are products that contribute greatly to increasing the business's income. Which has its own advantages of these products so much in demand. The income analysis of the three products aims to find out which product has the most profit. Plantation products have good prospects for development. The prospect is like the growth of the downstream to upstream industry which creates jobs, increases the income of farmers with high selling prices, the availability of large enough land and produces a variety of processed products that meet the needs of the community (Haryanto, 2012).

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downstream to upstream industry which creates jobs, increases the income of farmers with high selling prices, the availability of large enough land and produces a variety of processed products that meet the needs of the community (Haryanto, 2012).

Problem Formulation 1). How much is the income of Gayo Arabica coffee derivative products in UMKM assisted by Kbk Baburrayan in the village of begins dewal, Jeget corn sub-district, Central Aceh district. 2). Is the business of Gayo Arabica coffee derivative products produced by UMKM assisted by Kbk Baburrayan in Berawang Dewal village, Jagong Jeget sub-district, Central Aceh district profitable? Research aims 1). Knowing how the income level of coffee products in Berawang Dewal Village, Kec. Jagong Jeget Kab. Central Aceh. 2). Knowing how the economic feasibility of coffee product business in Berawang Dewal Village, Kec. Jeget Corn Kab. Central Aceh.

2. IMPLEMENTATION METHOD

This research was conducted from August to November 2022, which was carried out at the UMKM assisted by KBQ Baburrayan in Wih Nareh Pegasing Village, Central Aceh. The object of research is the Arabica coffee derivative product business. This research uses case study method with quantitative descriptive analysis. The data sources used are primary and secondary data, primary data obtained through direct interviews with Mr. Moch Charis as the Operational Manager of KBQ Baburrayan and Mr. Slamet as the Chair of the farmer group that manages MSMEs in Berawang Dewal Village, Jagong Jeget, Central Aceh by asking questions that have been prepared according to the problem under study. While secondary data were obtained from institutions or agencies related to this research such as the Central Aceh District Industry and Trade Office,

This analysis aims to determine the business income of processing Arabica coffee derivative products. The data that has been collected is analyzed descriptively quantitatively. The variables observed and measured in this study are production costs consisting of fixed costs and variable costs, revenues, income, while the business feasibility analysis uses the R/C Ratio method. With the following formula:

a) Total cost

Soekartawi (1995), explained that to find out the total cost is to add up the fixed costs (FC) and the variable costs (VC). With the following formula.

$$TC = FC + VC$$

Information:

TC = Total Cost (Total Cost)

FC = Fixed Cost

VC = Variable Cost

b) Total receipts

Kotler (2006), total revenue (TR) is the amount of money received by entrepreneurs before being deducted by the total cost or so-called gross income every month and is expressed in rupiah (Rp). Acceptance, namely the production generated by multiplying the selling price with production results (Soekartawi, 1995). With the following formula:

$$TR = P \cdot Q$$

Information:

TR = Total Revenue

P = Selling Price



Q = Number of products sold

c) Income

The income of a business is obtained from the total receipts and production costs, so that the results obtained are the profits or profits of the business. Revenue analysis can be used to determine how successful business activities are and become a benchmark for planning future conditions. According to Soekartawi (2006), the formula for income is:

$$\pi = TR - TC$$

Information:

π = Income

TR = Total Revenue

TC = Total Cost

d) R/C Ratio analysis

R/C Ratio analysis is used to analyze the feasibility of a business with the aim of knowing whether a coffee-derived product processing business is feasible. Suratiyah (2015), R/C is a comparison between revenue and costs. The R/C Ratio can be used to measure the relative profit level of business activities, where the result of the revenue-to-cost ratio can be seen whether a business is profitable or not. If the R/C Ratio is greater than 1 ($R/C > 1$), it means that any additional costs incurred will result in additional revenue that is greater than the additional costs (profitable). However, if the value of the R/C ratio is less than 1 ($R/C < 1$), it means that the additional costs incurred will result in additional revenue that is smaller than the additional costs (losses).

$$R/C \text{ Ratio} = \frac{\text{Total Penerimaan}}{\text{Total Biaya Produksi}}$$

Where:

R/C Ratio > 1 = profitable

R/C Ratio < 1 = loss

R/C Ratio = 1 = break even

3. RESULTS AND DISCUSSION

3.1 Description of Arabica Coffee Derivative Products Processing Business

The business of processing Arabica coffee derivative products is a new innovation that is processed from coffee cherries, the processing business is managed by the chairman of the KBQ Baburrayan Assisted Farmer Group as a source of income by utilizing the results from the plantation itself. The business activity is carried out in Berawang Dewal Village, Jagong Jeget District, Central Aceh Regency. The raw materials for coffee cherries needed for the production of Strongwine, cascara and green coffee are obtained from plantations belonging to members of the farmer groups, so that coffee cherries as the main raw material can be easily found. The following is a description of the processing of Gayo arabica coffee derivative products.

Strongwine is one of the world's first Arabica coffee derivative products, the first wine product made from Arabica coffee berries. Strongwine was first produced in late 2019 and is still ongoing today with growing demand. Strongwine is the product of fermented coffee beans using good quality coffee beans which contain a lot of mucilage in the coffee beans. Coffee fruit that has a lot of mucus in it which is only found at altitudes above 1300 meters above sea level. At this altitude, the production of coffee cherries is not much so that the coffee trees will produce coffee

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cherries with good quality and contain a lot of mucilage or fruit sugar. Even though it is called strongwine which we can assume that the coffee contains alcohol, in fact these coffee products do not contain alcohol at all, by going through several processing processes. The Strongwine production process, namely, coffee cherries will be wrapped in airtight plastic and then left for 1 month. After being fermented for 1 full month, the water produced during the fermentation will be boiled until it boils to remove the organisms and alcohol contained therein, so that the strong halal wine is consumed. Strongwine is usually produced according to consumer demand so that strongwine will always be sold out. However, strongwine production also depends on the availability of the main raw material, namely coffee cherries, if there is a lot of consumer demand but not the seasonality of the coffee cherries, then strongwine cannot be produced in large quantities.

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Cascara is a processed product from coffee husks which is a waste, coffee husks which were originally only used to make organic fertilizer but now can be utilized to become products that can be consumed. The skin of the coffee berry after being pulped will be dried in the sun until the moisture content reaches 12-14%. Coffee skins must be dried in a green house so that the coffee skins are not contaminated by animals. Drying cascara in a green house will be very effective during the rainy season so it doesn't need to be removed and can always be dried at night. Drying the coffee skins in the green house will dry faster within 4-6 days. The dried cascara will be packed



using double airtight plastic and tied with 2 cable ties. Cascara is a coffee product that is well known to many people. KBQ Baburrayyan is a producer that has exported cascara to China. However, at the beginning of 2021 there were obstacles in exporting cascara to China due to the conflict between China and Taiwan which heated up again last year, so since last year cascara has stopped being exported. So that cascara processing is no longer produced in large quantities, only produced for local sales.

Green coffee is a processed product from Peaberry green bean. Green coffee product is a new innovation from coffee fruit. The idea to process green coffee arose because of seeing the advantages of peaberry coffee which is defective coffee, even so this coffee has many benefits, namely, it is believed to reduce the risk of diabetes and improve blood circulation. Green coffee that is processed without roasting can maintain the properties in peaberry coffee, and green coffee can also be a diet drink. Peaberry coffee which is processed into green coffee powder is different from ordinary peaberry, peaberry coffee which is usually processed in a semi-wash manner, but for processing green coffee powder using arabica peaberry coffee with a full wash process. The following are coffee derivative products that will be analyzed for the income and feasibility of these products.

Table 1 Analysis of Arabica Coffee Derivative Products in UMKM Assisted by KBQ Baburrayyan for a 1 month production period

Coffee Derivative Products	Production Amount
Strongwine	114 bottles (245 ml)
Cascara	1.5 tons
Green Coffee	15 kgs

Source: Processed from primary data, 2022.

3.2 Production Costs

Production costs are costs incurred in the processing process to produce output. According to Riwayadi (2006: 64), production costs are "costs that occur in the production function, where the production function is a function that processes raw materials into finished goods. The process of producing raw materials to produce a product is certainly inseparable from costs. The cost of producing coffee derivative products is the cost required to process these raw materials into products. The cost of a coffee fruit processing business includes variable costs and fixed costs. Fixed costs are costs incurred when production does not change, only equipment depreciation occurs according to the number of production times. Variable costs are costs that change depending on consumer demand. Analysis of processing costs for each product is different because Arabica coffee derivative products have no relation to each other. The following is an analysis of production costs for each product.

3.2.1 Strongwine Production Cost

The following is an analysis of the cost of producing strongwine in September 2022.

a. Fixed cost

Fixed costs for Strongwine coffee products in September consist of costs for gas stoves, gas cylinders, steam pots, sacks, bottle clamps (bottle sealing tools), jars, filters, glass funnels, measuring cups, small pots, whistling kettles, plastic funnels. , rags, duct tape dispenser, expired date. Equipment costs are calculated based on 1 month depreciation. The purpose of calculating this depreciation cost is to maintain the continuity of the business activity itself. The cost of equipment depreciation in the coffee business in the study area can be seen as follows.

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Table 2 Equipment Depreciation Cost During Strongwine Production Production Period (1 Month)

Tool Type	Amount	Unit	Price	Total	Economic age	shrinkage
Gas stove	1	units	200,000	200,000	60 months	3,333
Gas cylinders	1	units	170,000	170,000	60 months	2,833
Steam Pot	2	units	100,000	200,000	60 months	1,666
Bag	14	units	4,000	56,000	12 months	333
Jiregen	7	units	13,000	91,000	24 months	3,791
Bottle Clam	1	units	500,000	500,000	60 months	8,333
Jar	3	units	25,000	75,000	24 months	3.125
Filter	2	units	4,500	9,000	24 months	375
Glass funnel	1	units	39,000	39,000	24 months	1625
Measuring Cup	1	units	15,000	15,000	24 months	625
Small saucepan	1	units	70,000	70,000	60 months	1.166
Whistling Kettle	1	units	100,000	100,000	60 months	1,666
Plastic Funnel	1	units	8,000	8,000	24 months	333
Duster	2	units	5,000	10,000	24 months	416.6
Duct Tape	2	units	25,000	50,000	60 months	833
Dispenser	1	units	45,000	45,000	60 months	750
expired date						31,203
Amount						

Source: Processed from primary data, 2022.

Based on the table above, the total fixed expenses after depreciation is Rp. 31,203,-/month. The biggest expenditure was on the production of strongwine, namely buying clam bottles of Rp. 500.000,-/purchase. While the smallest expenditure is the purchase of a filter of Rp. 4,500,-/purchase. The biggest depreciation cost in monthly production is the cost of clam bottles of Rp. 8,333,-/month, while the smallest depreciation is at the cost of a plastic funnel of Rp. 333,-/month. This happens due to differences in the price of an item and the economic age of each item, even though the price of the tool is expensive, it does not necessarily mean that the depreciation costs are large.

b. Variable Cost

Variable costs in the production of strongwine include production facilities (consisting of raw materials for coffee beans and their supporting materials, plastics, packaging, fuel (gas), labels, labor and the full details can be seen in the table.

Table 3 Average Cost of Strongwine Production Materials During Production Period (1 month)

Variable Cost	Unit	Price	Volume	Amount
Coffee Beans	IDR/Can	130,000	14 cans	1,820,000
Material A	IDR/kg	40,000	14	560,000
Fuel	IDR/unit	35,000	1	35,000
Glass Bottle (245ml)	IDR/bottle	7,000	130	840,000
Bottle Cap Seal	IDR/Pc	1,500	130	195,000
Sticker Labels	IDR/sheet	400	130	52,000
Expired paper	IDR/sheet	25	130	3,250
Used Cardboard	IDR/sheet	1,000	7	12,000
Clear Duct Tape	IDR/pcs	20,000	0.2	10,000
Duct Tape (Don't Slam)	IDR/pcs	28,000	0.4	7,000
Styrofoam	IDR/sheet	70,000	2	140,000
Transport fee	IDR/liter	8,000	3	24,000
Amount				3,698,250

Source: Processed from primary data, 2022.



The table above shows that the total variable expenses are Rp. 3,698,250,-/month. The biggest expenditure each month is the purchase of coffee cherries of Rp. 1,820,000.-/month for 14 cans of coffee cherries (13 kg/can). the purchase of raw materials for coffee cherries can fluctuate due to different consumer demands each month, generally producing 2 times the production of strongwine every month. Strongwine production will increase if there is a lot of consumer demand, but a lot of production also depends on the availability of raw coffee cherries. From the interview results it was found that the cost of buying coffee cherries could go up or down depending on the price of coffee cherries on the market. According to interview results, the price of coffee cherries fluctuates due to the amount of coffee production that follows the season so that during the main harvest the price of coffee can also decrease or increase. The raw material price for coffee cherries at the time of the study was IDR 130,000/Kg. the price of material A which is a complementary material for making strongwine is Rp. 560,000,-/month.

c. Labor Recruitment

Labor costs incurred for processing strongwine in September.

Table 4 Labor Utilization Per Month in Strongwine Processing Business in September 2022

Description	Volume	Working days	OK	Labor Cost/day	Labor Cost/month
Search for raw materials	1	1	1	126,000	126,000
Fermentation and the process of removing alcohol content	1	1	1	126,000	126,000
Packaging	1	0.5	0.5	63,000	63,000
Total HOK	3	2,5	2,5	315,000	315,000

Source: Processed from primary data, 2022.

The table above shows that the number of workers working for cascara processing is 3 people, searching for coffee fruit and ingredient A is 1 person for 1 day, fermentation and the process of removing the alcohol content contained in the fermented product is 1 worker for 1 day, with wages per person, namely Rp. 126.000,- per day, strongwine is produced once a month for 3 days of processing, with a fermentation time of 30 days which requires a workforce of 3 people. The cost of labor wages incurred in one production is Rp. 315,000,-/month.

d. Reception

Following are the details of production and production values in the strongwine processing business in this study.

Table 5 Total acceptance of strongwine products during production 1 month

Reception	Amount
Strongwine results	130 Bottles (245ml)
Average price	100,000 (245ml)
Total revenue (Rp)	13,000,000

Source: Processed from primary data, 2022.

Table 5 shows that the production of strongwine for one month is 130 bottles measuring 245 ml or 32,000 ml with a selling price per bottle of IDR 100,000/month, so the revenue earned for

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one month is IDR 13,000,000 /. The shrinkage rate of strongwine when filling it into containers and bottles from observations when the practice of packing strongwine at research sites is 0.5%, the assumption is that 32,000 ml of strongwine produces 130 bottles (245ml) or 31,840 ml. Strongwine production takes a long time so strongwine will be marketed after 1 month of production.

e. Income

Revenue is the difference between receipts and production costs incurred within one month. For more details on income for each month can be seen in the table below.

Table 6 Total Revenue from Strongwine Products in KBQ Baburrayyan MSME Fostered One Month Production Period

Description	Mark
Total Income (Rp/Month)	Rp. 13,000,000
Production cost	
a. Fixed Costs (Rp/month)	Rp. 31,203
b. Variable Fee (Rp/month)	Rp. 3,698,250
c. Labor Costs (Rp/month)	Rp. 315,000
Production costs (Rp/month)	Rp. 4,044,453
Income IDR/month)	Rp. 8,955,547
R/C Ratio	3.21

Source: Processed from primary data, 2022.

The table above shows the income from strongwine products processed in Berawang Dewal Village, Jagong Jeget District, Central Aceh, which is Rp. 8,955,547,-/month. The results obtained are the difference between the production costs of Rp. 4,044,453, -/month and a total revenue of Rp. 13,000,000,-/month of production. Strongwine production income is uncertain in terms of the amount of consumer demand and the availability of raw materials for coffee cherries when it is not in the harvest season. The average income of a strongwine product processing business is Rp. 8,955,547,-/month. The results of the interviews showed that strongwine production fluctuated a month because production depended on consumer demand and the availability of raw coffee cherries, generally producing strongwine twice a month.

f. R/C Ratio

The following is a feasibility calculation for the strongwine product processing business at KBQ Baburrayyan MSME Assistance in Berawang Dewal Village, Central Aceh, namely, $R/C \text{ ratio} = \text{Total Production Value} / \text{Total Production Cost}$ $R/C \text{ ratio} = \text{Rp.13,000,000} / \text{Rp. 4,044,453} = 3.21$ The R/C ratio calculation results show that the strongwine product processing business is very profitable, as indicated by the R/C ratio value greater than 1. If $R/C \text{ ratio} > 1$, then the business provides a decent profit. This means that every expenditure of IDR 1000 will produce a production value of IDR 3,210/month. This shows that the strongwine product processing business is very profitable and will become a sustainable product.

3.2.2 Cascara Production Cost

a. Fixed cost

Fixed costs for Cascara products in March 2021 consist of the cost of purchasing Pulper Machines, tarpaulins, making green houses, ice scoops (stainles), scales and buckets. Equipment depreciation costs for cascara production can be seen as follows:



Table 7 Equipment Depreciation Cost in March 2021

Types of goods	Amount	Unit	Price	Total	Economic age	shrinkage
Pulper Machine	1	units	3,600,000	3,600,000	120 months	30,000
Tarpaulin	5	units	240,000	1,200,000	24 months	50,000
Green House	1	units	200,000/m ²	32,000,000	120 months	266,000
Ice Scoop (Stainless)	1	units	25,000	25,000	24 months	1,041
Bucket	2	units	20,000	40,000	24 months	1,666
Scales	1	units	990,000	990,000	120 months	8,250
Amount						356,957

Source: Processed from primary data, 2022.

Based on the table above, the total fixed expenses after depreciation on cascara production is Rp. 356,957,-/month. The biggest expense is the cost of making a green house with an area of 20 x 8cm² which costs Rp. 32,000,000,-/. While the smallest expenditure is the purchase of 2 units of buckets as a container to accommodate coffee skins, which is Rp. 40,000,-/. The biggest depreciation fee per month is the cost of the green house, which is Rp. 266,000, -/month and the smallest is the cost of depreciation of the ice spoon (stainles) which is Rp. 1,041,-/month. This is because the number of purchases and the economic life of each item are different, even for goods with high prices, it does not necessarily have a large amount of depreciation for one month of production.

b. Variable Cost

Variable costs in the production of cascara to be exported include production facilities (consisting of fuel, plastic, labor and cable ties).

Table 8 Average Cost of Cascara Production Materials During the production period (1 month).

Variable Cost	Unit	Price	Volume	Amount
Fuel Cost	IDR/liter	6,000	2 Liters	12,000
Raw material	IDR/kg	2,000	1 ton	2,000,000
Clear plastic	IDR/pcs	3,888	200 Pcs	777,777
Cable Ties (Pack)	IDR/pcs	100	200 Pcs	20,000
Transport fee	IDR/liter	8,000	3 liters	24,000
Amount				2,833,777

Source: Processed from primary data, 2022.

The table above shows that the total expenditure for the variable cost of cascara production is Rp. 833,777,-/month. The biggest expenditure each month is the purchase of clear plastic of Rp. 777,777,-/month as much as 200 pcs for packing cascara. In the production of cascara there is no need to spend on the cost of purchasing raw materials because cascara is made from coffee fruit skins which are waste, but the raw materials for coffee skins are partly taken from farmer groups by workers because the heads of farmer groups do not have enough raw materials to produce in large quantities. Cascara production once a month is 1.5 tons for export to China.

c. Use of Labor

Labor wages are costs incurred by employers for the use of labor in each production process, the average labor used in this farming is male labor.

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Table 9 Use of Labor Per Month in the Cascara Processing Business in March 2021.

Description	Volume	Working days	OK	Labor Cost/day	Labor Cost/month
Search for Coffee Skin and coffee fruit pulper	1	2	2	126,000	252,000
Sorting and packaging	2	4	8	126,000	1,008,000
Total HOK	3	6	10	252,000	1,260,000

Source: Processed from primary data, 2022.

The table above shows that the number of workers working for cascara processing is 3 people, searching for raw materials for coffee skin and pulper is 1 person for 2 days, drying and packing cascara is 2 people for 4 days. The wage per person is Rp. 126.000,- per day, production of cascara once a month for 6 days of processing which requires a workforce of 3 people. The cost of labor wages incurred in one production is IDR 1,260,000/month.

d. Reception

Acceptance is the calculation of production results with the selling price of the product. The selling price in question is the selling price in effect at the time of this study. The amount of production of Arabica coffee derivative products is multiplied by the selling price of the product so that the number of receipts per month is obtained before being deducted by production costs.

Table 10 Total Acceptance of Cascara Products During 1 Month Production.

Reception	Amount
Cascara results	1.5 tons
Average price	22,000/kg
Total revenue (Rp)	33,000,000

Source: Processed from primary data, 2022.

Table 10 shows that the production obtained for one month is 1.5 tons with a selling price per kilo of Rp.22,000.-/, then the revenue obtained for one month of production is Rp.33,000,000.-/. Cascara is a product that has been exported to China. Each month, cascara is produced as much as 1.5 tons with revenues of 33,000,000.

e. Income

Revenue is the difference between receipts and production costs incurred within one month. For more details on income for each month can be seen in the table below.



Table 11 Total Revenue of Cascara Products d UMKM Assisted by KBQ Baburrayyan One Month Production Period

Description	Mark
Total Income (Rp/Month)	Rp. 33,000,000
Production cost	
a. Fixed Costs (Rp/month)	Rp. 356,957
b. Variable Fee (Rp/month)	Rp. 2,833,777
c. Labor Costs (Rp/month)	Rp. 1,260,000
Production costs (Rp/month)	Rp. 4,450,734
Income IDR/month)	Rp. 28,549,266
R/C Ratio	7.41

Source: Processed from primary data, 2022.

Table 11 shows the level of income in one month of production of cascara products at KBQ Baburrayyan's MSME Assistance in Berawang Dewal Village, Central Aceh, which is Rp. 28,549,266,-/month. The income earned during 1 month of production is the difference between production costs of Rp. 4,450,734, -/month and a total revenue of Rp. 33,000,000,-/month. The average income of a cascara product processing business is Rp. 28,549,266,-/month. Cascara is a coffee derivative product that has markets overseas, but from the results of the interviews it was found that there were obstacles in exporting cascara to China being stopped due to conflicts in the export destination countries, and until now no foreign buyers have been found. However, cascara is still produced and marketed in the surrounding area.

d. R/C Ratio for Cascara Products

Based on the table above, it shows that the level of feasibility in the product processing business is, $R/C \text{ ratio} = \text{Total Production revenue} / \text{Total Production Costs}$ $R/C \text{ ratio} = \text{Rp.}33,000,000 : \text{Rp.} 4,450,734 = 7.41$. The results of the calculation of the R/C ratio show that the business of processing cascara products is very profitable, as indicated by the value of the R/C ratio greater than 1. If $R/C \text{ ratio} > 1$, then the business provides a decent profit. This means that for every expenditure of IDR 1000, - it will produce a production value of IDR 5,040 / month. This shows that the business of processing cascara products is very profitable and will become a sustainable product.

3.2.3 Cost of Green Coffee Production

The following is an analysis of green coffee processing costs for 1 month in August 2022.

a. Fixed Cost of Green Coffee Products

Fixed costs for Green Coffee coffee products consist of purchasing costs for grinding machines, containers, impulse sealers, glass jars (coffee powder storage), ice spoons (plastic), brushes, and expiration dates. Equipment costs are calculated based on 1 month depreciation. The purpose of this depreciation cost analysis is to find out the total production costs for 1 month. Equipment depreciation costs for Green coffee production can be seen as follows:

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Table 12 Equipment Depreciation Cost During Green Coffee Production Production Period (1 Month).

Tool Type	Amount	Unit	Price	Total	Economic age	shrinkage
Grinding Machine	1	units	2,950,000	2,950,000	60 months	49,166
Receptacle	3	units	20,000	60,000	24 months	2,500
Impulse Sealers	1	units	300,000	300,000	60 months	5,000
Glass Jar	1	units	199,000	199,000	24 months	8,291
Ice Scoop (Plastic)	1	units	10,000	10,000	24 months	416
Paintbrush	2	units	5,000	10,000	12 months	833
expired date	1	units	45,000	45,000	60 months	750
Amount						66,956

Source: Processed from primary data, 2022.

Table 12 shows that the total expenditure for fixed costs on green coffee production is Rp. 66,956,-/month. The biggest expenditure is the cost of purchasing a grinding machine which costs Rp. 2.950.000,-/. While the smallest expenditure is on buying ice spoons (plastic) and brushes, which is Rp. 10,000,-/. The biggest monthly depreciation expense is the grinding machine cost, which is Rp. 49,166, -/month while the smallest depreciation is the cost of depreciation of the ice spoon (plastic) of Rp. 416,-/month. This is because the number of purchases and the economic age of each item are different, even though the price of the item is high, it does not necessarily have a large depreciation for one month of green coffee production in KBQ Baburrayyan Aceh Tengah SMEs.

b. Variable Cost

The variable costs of Green Coffee production include production facilities (consisting of raw materials (green bean peaberries), fuel, packaging, labor and labels.

Table 13 The Average Cost of Green Coffee Production Facilities During the Production Period (1 month).

Variable	Unit	Price	Volume	Amount
Green Bean (Green coffee)	IDR/kg	120,000	16 kgs	1,920,000
Electricity cost	IDR/hour	1467.6	1 hour	4,467
Packaging	IDR/pcs	700	150 Pcs	105,000
Label	IDR/sheet	400	150 Pcs	60,000
Expired paper	IDR/pcs	25	150 Pcs	3,750
Amount				2,282,817

Source: Processed from primary data, 2022.

The table above shows that the total expenditure for the variable cost of green coffee production is Rp. 2,282,817.8,-/month. The biggest expenditure each month is the purchase of green coffee (green bean peaberry) of Rp. 1.920.000,-/month. The cost of buying green bean peaberry seeds can go up or down depending on the price of green bean peaberry on the market. According to the results of an interview with Pak Charis as the Operations Manager, the price of green coffee beans (green beans) at the time of the study was IDR 120,000/Kg. However, green coffee production is erratic due to a lack of enthusiasts. From the interview results it was found that green coffee is not often produced due to lack of demand in the market, green coffee is a coffee derivative product that has just been marketed, so not many people know about it. The green coffee production process does not require a lot of labor. The workforce needed is only 1 person, namely



in the processing of coffee beans into powder and in the packaging of green coffee for 1 working day. Labor costs are 126,400, -/day.

c. Labor usage

Labor wages are costs incurred by employers to pay for the services of workers who process green coffee products. The following is the calculation of the cost of green coffee processing workers.

Table 14 Use of Labor Per Month in the Cascara Processing Business in March 2021

Description	Volume	Working days	OK	Labor Cost per day	Monthly Labor Costs
Grinding and Packaging	1	1	1	126,000	126,000
Total HOK	1	6		126,000	126,000

Source: Processed from primary data, 2022.

The table above shows that the number of workers working on green coffee processing is 1 person, that is, on grinding and packaging green coffee for 1 day, with a wage per person of Rp. 126.000,- per day. Production of cascara once a month for 1 day of processing which requires a workforce of 1 person. The cost of labor wages incurred in one production is Rp. 126.000,-/month.

d. Reception

Acceptance is the calculation of production results with the selling price of the product. The selling price in question is the selling price in effect at the time of this study. The amount of production of Arabica coffee derivative products is multiplied by the selling price of the product so that the number of receipts per month is obtained before being deducted by production costs.

Table 15 Total Acceptance of Green Coffee Products During 1 Month Production.

Reception	Amount
Green Coffee Yield	150pcs
Average price	35,000 (100g)
Total Revenue (Rp)	5,250,000

Source: Processed from primary data, 2022.

Table 15 shows that the production obtained for one month is 150 packages containing 100 grams or as much as 15 kg with a selling price per package of IDR 35,000, -, then the revenue obtained for one month is IDR 5,250,000 /. The loss rate of green coffee during processing from the interview results is 5%, the assumption is that 1 kg of green beans produces 950 grams of green coffee powder.

e. Income

Revenue is the difference between receipts and production costs incurred within one month. For more details on income for each month can be seen in the table below.

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Table 16 Total Revenue of Cascara Products d UMKM Assisted by KBQ Baburrayyan One Month Production Period.

Description	Mark
Total Income (Rp/Month)	Rp. 5,250,000
Production cost	
a. Fixed Costs (Rp/month)	Rp. 66,956
b. Variable Fee (Rp/month)	Rp. 2,282,817
c. Labor Costs (Rp/month)	Rp. 126,000
Production costs (Rp/month)	Rp. 2,475,773
Income IDR/month)	Rp. 2,774,227
R/C Ratio	1.12

Source: Processed from primary data, 2022.

The table above shows the income level of green coffee products in KBQ Baburrayyan's MSMEs in Berawang Dewal Village, Central Aceh, namely Rp. 2,774,227,-/month. Green coffee income is obtained from the difference between production costs of Rp. 2,475,773, -/month and a total revenue of Rp. 5.250.000,-/month. The average income of a green coffee processing business is Rp. 2,774,227,-/month. The results of the interviews revealed that green coffee production is not often produced because green coffee is the newest processed coffee product so that many people know about it.

d. R/C ratio

The following is a feasibility calculation for the KBQ Baburrayyan green coffee product processing business in Wih Nareh Pegasing Village, Central Aceh, namely, $R/C \text{ ratio} = \text{Total Production revenue} / \text{Total Production Cost}$ $R/C \text{ ratio} = \text{Rp. } 5,250,000 / \text{Rp. } 2,475,773 = 2.12$. The results of the calculation of the R/C ratio show that the cascara product processing business is very profitable, as indicated by the value of the R/C ratio greater than 1. If $R/C \text{ ratio} > 1$, then the business provides a decent profit. This means that for every expenditure of IDR 1,000, - it will produce a production value of IDR 2,120 / month. This shows that the business of processing cascara products is very profitable and will become a useful or profitable product so that it is feasible to continue or work on it. Seeing the results of research that has been done.

4. CONCLUSION

Based on the results of the study it can be concluded that processed products from Arabica coffee have a great opportunity to develop. It can be seen from the income on each processed product that has a high selling value so that in 1 production for a month it gets satisfactory results. From the results of the feasibility analysis on the three Arabica coffee derivative products, the average R/C ratio gets a value of more than 1, namely the strongwine product gets a value of 3.23, which means the business is profitable, the cascara product gets an R/C ratio of 7.41 which has a This means that the product processing business is very profitable, while green coffee products have the lowest among all coffee derivative products, namely 2.12, but green coffee is also profitable and feasible to cultivate. From the research results, the product that generates the most profit is cascara with an R/C ratio of 7.41, cascara is a product produced from waste treatment, so purchasing raw materials does not incur large costs. The strongwine product, which is the second most profitable product, is the strongwine product with a value of 3.23, with production increasing every month. And green coffee products are the products that contribute the least



profit, with a value of 2.12, and are still under-produced. The strongwine product, which is the second most profitable product, is the strongwine product with a value of 3.23, with production increasing every month. And green coffee products are the products that contribute the least profit, with a value of 2.12, and are still under-produced. The strongwine product, which is the second most profitable product, is the strongwine product with a value of 3.23, with production increasing every month. And green coffee products are the products that contribute the least profit, with a value of 2.12, and are still under-produced.

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