SUPPLY CHAIN ANALYSIS AND ADDED VALUE OF GROUND COFFEE (CASE STUDY: SUKMOJATI COFFEE AGROINDUSTRY, PASURUAN)

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ABSTRACT

The coffee agroindustry plays a role in increasing added value for coffee commodities and strengthening the value chain from upstream to downstream. This study aims to analyze the supply chain of Sukmojati Coffee and analyze the added value and profit of robusta ground coffee and arabica ground coffee in the Sukmojati Coffee Agroindustry. The study was conducted in March 2025. Data was collected through observation and interviews. Respondents were selected using a purposive sampling method consisting of 1 owner, 3 employees, 3 farmers, 3 retailers, and 3 coffee shops. Data analysis used SCOR 12.0 analysis and Hayami added value analysis. This study found that the supply chain structure of Sukmojati Coffee consists of 3 supply chain channels and involves 4 actors, namely farmers, Sukmojati Coffee Agroindustry, retailers, and coffee shops. The Sukmojati coffee supply chain also includes product flow, financial flow, and information flow. The application of the SCOR 12.0 model to the Sukmojati Coffee supply chain is carried out systematically through 6 processes, namely plan, sources, make, deliver, return, and enable. The added value generated from robusta ground coffee is Rp 29.485/kg (29%) and arabica ground coffee is Rp 19.485/kg (19%). The profits obtained from robusta ground coffee and arabica ground coffee are Rp 27.110/kg and Rp 17.110/kg, respectively. This finding emphasizes the need to strengthen partnerships between supply chain actors and maintain a company's reputation to maintain a smooth supply chain. In addition, this finding also emphasizes the need to determine priority products and evaluate selling prices in order to optimize the profits obtained by the company.

Keywords: Ground coffee, hayami method, added value, supply chain

INTRODUCTION

Indonesia is one of the largest coffee producing countries in the world and is ranked 4th after Brazil, Vietnam, and Colombia. Coffee production is the third largest source of foreign exchange for the Indonesian economy, after rubber and timber. Coffee production in Indonesia shows an increase from 1965 to 2024, with an average annual production of 639 thousand tons (Nugroho et al., 2025). The high level of coffee production in Indonesia is supported by the many coffee producing centers in various regions, one of which is Prigen District in Pasuruan Regency.

Prigen District is one of the best coffee producing areas in Pasuruan Regency with vast expanses of coffee plantations accompanied by climate and weather that are suitable for growing coffee plants. Based on data from the Central Statistics Agency of Pasuruan Regency, coffee production in Prigen District has often increased from year

to year. In 2021, coffee production in Prigen District reached 176,31 tons and increased to 381,19 tons in 2022. Not only that, the figure even increased again in 2023 to 448,09 tons.

The growth of coffee production in Prigen has also driven the development of the coffee agroindustry as a downstream industrial sector in Prigen. Coffee as a perishable agricultural product requires further handling to extend the product's shelf life and increase its economic value. Processing carried out by the agroindustry can produce processed products with higher value than the original product. Through agroindustry development, primary agricultural products can be processed into a variety of new, more attractive processed products. Processing carried out by the agroindustry can also drive higher selling prices, thereby contributing to increased business revenue (Sulandjari & Margaretha, 2021).

The development of agroindustry encourages the process of distributing agricultural commodity havest from producers or farmers to consumers, also known as the supply chain. According to Wahditiya et al. (2025), the supply chain can be defined as a product distribution network from the producers to end consumers. A supply chain activity, includes the flow of product, financial, and information between producer and consumer, can form a series of activities that generate added value (Pangestuti et al., 2019).

The government is currently strengthening its downstream agricultural sector agenda to increase product added value and strengthen the agricultural value chain from upstream to downstream. The Ministry of Agriculture has focused downstreaming on seven strategic plantation commodities, one of which is coffee (Afandi, 2025). Creating added value for agricultural products through agroindustry is not only beneficial for the country, but also for the community, especially for agricultural businesses. A good understanding of added value is crucial for entrepreneurs in making strategic decisions, such as prioritizing the most profitable products and evaluate selling prices (Idsan & Andanu, 2025).

One of the coffee agroindustries in Prigen District is the Sukmojati Coffee Agroindustry, located in Dayurejo Village, which processes green beans into ground coffee. As it develops, the Sukmojati Coffee Agroindustry is facing several challenges in its supply chain and added value. One of the main issues is the fluctuation in green bean prices. Coffee as a plantation commodity with a seasonal harvest, is highly susceptible to price fluctuations. During the harvest season, there can be a significant surge in production, ultimately leading to low coffee bean prices (Muar, 2023). This also often occurs in various coffee producing centers in East Java, such as Jember and Malang (Nandita et al., 2023; Syahputri et al., 2023). The price of green beans during the harvest season and outside the harvest season has a fairly large price difference (Sugianto & Ibrahim, 2025). The price of coffee received by producers will be stable when they sell processed products (Puryantoro, 2021).

Fluctuations in green bean prices can impact supply stability and production costs in the Sukmojati Coffee Agroindustry. Problems with green bean supply can hinder processing and ultimately reduce sales. A mismatch between supply and market demand can also make it difficult for businesses to maintain consistent inventory. One approach that can be used to identify the supply chain in the Sukmojati Coffee Agroindustry is the SCOR 12.0 analysis. Through the SCOR 12.0 analysis, three supply chain flows can be identified, namely product, financial, and information flows, as well as the supply chain processes that occur which include plan,

sources, make, deliver, return, and enable (Sinaga et al., 2024).

The processing carried out by the Sukmojati Coffee Agroindustry provides added value to the processed green coffee beans. However, fluctuating green coffee bean prices result in fluctuating production costs, which in turn leads to uncertain added value and profits. As found by Hadistio & Rahmawati (2021), the added value can change according to the market factors, one of them is the price of raw materials.

One approach that can be applied to analyzing added value is the Hayami added value analysis. This calculation requires information such as expenditure on purchasing raw materials, expenditure on labor wages, expenditure on purchasing supporting materials, and output prices. Using the Hayami added value analysis, profits, labor compensation, and remuneration for each factor of production are also determined. Hayami added value analysis is ideal for calculating the added value of processed agricultural products.

The results of this study can contribute as a reference for Sukmojati Coffee Agroindustry owners to ensure that the ground coffee produced meet the criteria for positive added value so that they are worthy of being marketed. Citing study by Indriyani et al. (2025) and Rizkianor et al. (2024), it was shown that sale of ground coffee generates greater added value and profits than the sale of the primary product, green beans. In addition, this reserach fills a gap in previous literature which focuses more on types of processed coffee products at various levels of processing, without highlighting the comparison between one type of processed coffee product with the differences in existing varieties (Salsabila et al., 2023; Wibowo & Palupi, 2022).

Various previous studies have examined the analysis of added value in coffee commodities in various regions, starting from the scale of farmer groups, to large-scale coffee processing companies (Puryantoro, 2021; Mufidah & Ariyani, 2024; Suputra et al., 2023). However, there has been no research that specifically calculates the added value of coffee processing in the Sukmojati Coffee Agroindustry.

A number of existing literatures show that the ground coffee produces different amounts of added value. Studies by Kurniasari et al. (2025) and Rahmalia et al. (2023) found that the added value ratio of robusta ground coffee in two different processing business units resulted in different added value ratios and profit rates. Similar findings were also found in the research of Simatupang et al. (2025) and Widiawati & Renaldi (2024) on arabica ground coffee conducted in two different processing business units, which also produced different added value ratios and profit rates. These studies demonstrate that each agroindustry has distinct product characteristics and cost structures, making added value analysis difficult to generalize. Thus, this research can provide a detailed picture for the Sukmojati Coffee Agroindustry in determining the priority of processed products and evaluating selling prices to optimize profits.

Based on the background that has been explained, this research was conducted with the aim of analyzing the Sukmojati Coffee supply chain and analyzing the added value and profits of robusta ground coffee and arabica ground coffee in the Sukmojati Coffee Agroindustry.

RESEARCH METHODS

The research was conducted at the Sukmojati Coffee Agroindustry located in Dayurejo Village, Prigen District, Pasuruan in March 2025. Sukmojati Coffee Agroindustry was deliberately chosen because it is an agroindustry with a consistent production level

and has complete production facilities from upstream to downstream.

Respondents in this study consisted of 1 owner and 3 employees of the Sukmojati Coffee Agroindustry as well as 3 farmers, 3 retailers, and 3 coffee shops. The respondents were selected using a purposive sampling technique, which is based on the research objectives. The owner of Sukmojati Coffee Agroindustry was selected as the respondent because he is the party most knowledgeable about the business being run. Three employee were selected because they are directly involved in the production and supply chain activities at Sukmojati Coffee Agroindustry. Meanwhile, partner farmer respondents, retailers, and coffee shops were selected because they have direct involvement in the Sukmojati Coffee supply chain activities.

This study uses primary data intentionally collected through observation and interviews. The primary data collected includes detailed information regarding the Sukmojati Coffee supply chain and data needed to calculate the added value of robusta and arabica ground coffee. Secondary data obtained from books, scientific journals, and company documents were also used.

The data were analyze using SCOR 12.0 analysis and Hayami added value analysis. Data regarding the Sukmojati Coffee supply chain, including product flow, financial flow, information flow, and the Sukmojati Coffee supply chain process which includes 6 core processes, namely plan, sources, make, deliver, return, and enable (Riyadi & Somadi, 2025). The Hayami added value analysis was developed by Hayami et al. (1987) which was used to analyze the added value of robusta and arabica ground coffee in the Sukmojati Coffee Agroindustry. The calculation format for the Hayami added value analysis is shown in Table 1.

There are decision making criteria regarding the added value produced. If the added value is > 0, then the company has successfully provided positive added value, and vice versa (Windyata et al., 2021). In addition, there are 3 categories for grouping the added value ratio, (a) Low, if the added value ratio is < 15%, (b) Medium, if the added value ratio is 15% - 40%, and (c) High, if the added value ratio is > 40% (Sinaga et al., 2022).

Table 1. Hayami Method Added Value Calculation Procedure

	Variable	Value
I.	**Output, Input, and Price**	
1	Output (kg/production)	A
2	Raw material input (kg/production)	B
3	Labor input (HOK/production)	C
4	Conversion factor	D = A/B
5	Labor coefficient	E = C/B
6	Output price (Rp/kg)	F
7	Avarages wages of Labor (Rp/HOK)	G
II.	**Revenue and Profit**	
8	Raw material price (Rp/kg)	H
9	Contribution of other inputs (Rp/kg)	I
10	Output value (Rp/kg)	J = D x F
11	a. Added value (Rp/kg)	K = J - H – I
	b. Added value ratio (%)	L = K/J x 100%
12	a. Labor income (Rp/kg)	M = E x G
	b. Labor share (%)	N = M/K x 100%
13	a. Profit (Rp/kg)	O = K – M
	b. Profit rate (%)	P = O/J x 100%
III.	**Remuneration for Production Factors Owner**	

14	Margin (Rp/kg)	Q = J – H
	a. Labor income (%)	R = M/Q x 100%
	b. Contribution of other inputs (%)	S = I/Q x 100%
	C. Company profits (%)	T = O/Q x 100%

Source: Hayami et al. (1987)

RESULTS AND DISCUSSION

Sukmojati Coffee Supply Chain Structure

A supply chain can be defined as a network involving several parties working together to meet the product needs of end consumers. The Sukmojati Coffee supply chain has a product flow, financial flow, and information flow. The parties involved in the Sukmojati Coffee supply chain are farmers, the Sukmojati Coffee Agroindustry, coffee shops, and retailers, as depicted in Figure 1.

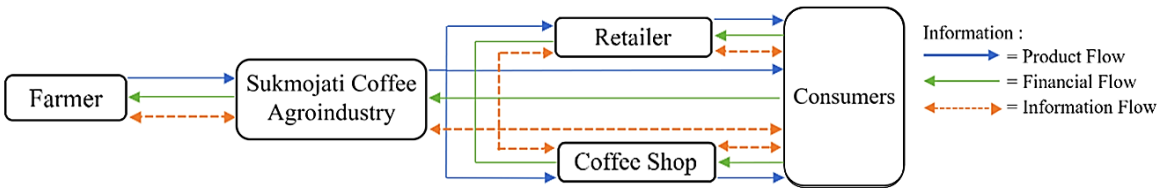

Figure 1. Sukmojati Coffee Supply Chain Structure
Source: Primary Data Processed (2025)

In general, the Sukmojati Coffee supply chain begins with farmers selling green beans to the Sukmojati Coffee Agroindustry, which are then processed by the Sukmojati Coffee Agroindustry into ground coffee and marketed directly to end consumers and through sales partners. As illustrated in Figure 1, the Sukmojati Coffee supply chain has several channels: (1) Farmers - Sukmojati Coffee Agroindustry - Consumers, (2) Farmers - Sukmojati Coffee Agroindustry - Retailers - Consumers, (3) Farmers - Sukmojati Coffee Agroindustry - Coffee shops - Consumers. Despite having multiple supply chain channels, each player has a distinct role in the Sukmojati Coffee supply chain. Each actor has a different role in the running of the Sukmojati Coffee supply chain, namely:

1. Farmers

Farmers are the primary supply chain actors responsible for procuring the raw material for ground coffee, namely green beans. Farmers are the ones who cultivate or cultivate coffee plants. These farmers are coffee farmers in Dayurejo Village who cultivate coffee using their own land. Not only do they cultivate coffee, but they also carry out the harvesting and post harvest processes to produce coffee products in the form of green beans that can be sold to the Sukmojati Coffee Agroindustry. Given that farmers are the ones who procure the raw material for green beans, farmers play a major role in the quantity and quality of green bean supply at the Sukmojati Coffee Agroindustry. As found by Maulida et al. (2022) that uncertainty in the quantity of supply and product quality can be an operational risk in a supply chain structure.

2. Sukmojati Coffee Agroindustry

The Sukmojati Coffee Agroindustry is the second player in the Sukmojati Coffee supply chain. It receives green beans from farmers for processing. The green beans received must meet predetermined quality standards. Green bean quality can be seen from the beans physical appearance, including shape, size, color, and moisture content. The processing process undertaken by the Sukmojati Coffee Agroindustry aims to transform the green bean raw material into a new processed product, namely ground coffee. This ground coffee product will be sold to other supply chain players.

3. Retailer

Retailers act as the third actor in the Sukmojati Coffee supply chain. They are one of the sales partners collaborating with the Sukmojati Coffee Agroindustry and helping expand the market reach of Sukmojati Coffee products. Retailers regularly purchase ground coffee from the Sukmojati Coffee Agroindustry and resell it to end consumers.

4. Coffee Shop

Coffee shops act as the third actor in the Sukmojati Coffee supply chain, purchasing ground coffee products for processing and resale to their consumers. Coffee shops purchase ground coffee to meet the supply of raw materials to provide ready to drink coffee products for their consumers. Coffee shops are one of the supply chain actors with stable demand frequency and large volume, so they have a big contribution to the running of the Sukmojati Coffee supply chain.

Sukmojati Coffee Supply Chain Flow

The series of activities in the Sukmojati Coffee supply chain includes three flows: product flow, financial flow, and information flow. The product flow describes the distribution of products from suppliers (farmers) to the end consumer. The financial flow explains the payment methods used in the Sukmojati Coffee supply chain. The information flow explains product pricing and demand information.

Table 2. Sales Volume of Ground Coffee in the Sukmojati Coffee Agroindustry in 2024

Ground Coffee Distribution Channels	Robusta Ground Coffee (kg)	Arabica Ground Coffee (kg)
Sukmojati Coffee Agroindustry - Consumers	624	399
Sukmojati Coffee Agroindustry - Retailers - Consumers	397	146
Sukmojati Coffee Agroindustry - Coffee shops - Consumers	418	177

Source: Primary Data Processed (2025)

1. Product Flow

The product flow in the Sukmojati Coffee supply chain is depicted in Figure 1, which flows from upstream namely farmers as producers to downstream namely the Sukmojati Coffee Agroindustry as a processing industry and a number of sales parners. Figure 1 shows that the first actor in the Sukmojati Coffee supply chain is the farmer. In this case, the farmer distributes their harvested product namely green beans to the Sukmojati Coffee Agroindustry as raw material in the processing activities carried out. After the green beans are processed into ground coffee, the product is marketed in two ways: directly to consumers and through retailers and coffee shops for resale to end consumers. The findings support a research by Alhabsyi et al. (2024) conducted in East Bolaang Mongondow Regency, which found that the coffee supply chain is also divided into several channels. However, as seen in Table 2, the majority of ground coffee sales at the Sukmojati Coffee Agroindustry come from direct sales to consumers. Despite having sales partners, the Sukmojati Coffee Agroindustry remains focused on direct sales to consumers. This is done to improve the effectiveness of its supply chain. As a research by Minasti et al. (2024) that the shorter the supply chain, the higher the effectiveness and benefits obtained by each supply chain actor.

2. Financial Flow

Financial flows are related to the transaction system carried out by supply chain actors in making purchases and sales. In the Sukmojati Coffee supply chain, payments are made in cash by consumers to producers according to a predetermined price. Farmers, as the primary supply chain actors, receive

payments from the Sukmojati Coffee Agroindustry for the supply of green beans they distribute. The payment received by farmers can be influenced by the price of green beans in the market and the quality of the green beans supplied. When the market price and quality of supplied green beans are high, the price received by farmers will also be high, and vice versa. The Sukmojati Coffee Agroindustry, as the secondary supply chain actor, receives payments from consumers, retailers, and coffee shops for the sale of its ground coffee products. The price of ground coffee products is Rp 125.000/kg, but this price can be lower if consumers make purchases in large quantities.

3. Information Flow

Information flows in both directions within each supply chain actor. This aligns with argument of Dewi & Andrian (2024) that information flows in two directions, both from producers to consumers and vice versa. Information flowing from farmers to the Sukmojati Coffee Agroindustry concerns the quantity and quality of green beans to be supplied. Meanwhile, information flowing from the Sukmojati Coffee Agroindustry to farmers concerns the price farmers will receive for their green beans.

Information flowing from the Sukmojati Coffee Agroindustry to consumers, retailers, and coffee shops concerns the price of ground coffee. Meanwhile, information flowing from consumers, retailers, and coffee shops to the Sukmojati Coffee Agroindustry concerns the demand for ground coffee.

Sukmojati Coffee Supply Chain Process with SCOR 12.0 Method

1. Plan

The plan includes raw material requirements planning, production planning, and distribution planning. Effectiveness in this stage will determine the smooth flow of products and reduce the risk of excess or insufficient stock (Ma'ruf, 2025). Sukmojati Coffee Agroindustry's raw material planning is adjusted to estimated market demand and supply availability. During the peak harvest season, Sukmojati Coffee Agroindustry will supply as much raw material as possible to maintain the availability of raw materials in the following months, especially outside the harvest season.

Production planning at the Sukmojati Coffee Agroindustry is based on its production capacity. The Sukmojati Coffee Agroindustry can produce approximately 200 kg per month. The production process involves two processes: roasting and grinding. Roasting takes approximately 40 minutes, and grinding takes approximately 5-10 minutes.

Distribution planning is carried out to ensure that ground coffee products reach consumers in the best condition. This distribution planning includes selecting effective distribution channels. Sukmojati Coffee Agroindustry has two types of distribution processes: direct distribution by Sukmojati Coffee Agroindustry and distribution through logistics services.

2. Sources

Sources encompasses the raw material procurement process starting from scheduling deliveries from farmers, checking green bean supplies, and payments according to predetermined agreements. This stage begins with gathering information on the quantity supplied from farmers, the quality, and the price of green beans. Sukmojati Coffee Agroindustry communicates with farmers to obtain information on raw material conditions in the field and to reach price agreements with them.

Once an agreement has been reached regarding quantity, quality, and price, farmers can deliver raw materials to the Sukmojati Coffee Agroindustry. Since these partner farmers are coffee farmers in Dayurejo

Village, the deliveries are handled by the farmers themselves, with no shipping costs due to the relatively short distance. Supplies received at the Sukmojati Coffee Agroindustry will be weighed and inspected before the farmers receive payment.

3. Make

This process encompasses the transformation of raw materials into products for distribution to consumers (Maisaroh et al., 2023). The production process at the Sukmojati Coffee Agroindustry begins with the sorting stage of green beans and continues with the roasting and grinding processes. The parameters used in the roasting and grinding processes are carried out in accordance with the standards of the Sukmojati Coffee Agroindustry. After the ground coffee is produced, it is packaged in 500 gram and 1 kilogram sizes. This packaging process also includes labeling to enhance the product's image and convey several important information to consumers, such as the expiration date, storage instructions, and serving instructions.

4. Deliver

This process includes the delivery of products to consumers (Dewanto & Erlina, 2025). The delivery process at Sukmojati Coffee Agroindustry is carried out to distribute products to consumers who make purchases via WhatsApp. After receiving orders from consumers, the Agroindustry will immediately prepare the goods and package them to ensure product safety during transit.

Sukmojati Coffee Agroindustry ships orders once a day. This means all orders received that day are shipped simultaneously on a single delivery route. This ensures delivery efficiency. The delivery process consists of two types of services: direct delivery by the company and delivery through a logistics service. Product deliveries to the Pasuruan area are handled by the Sukmojati Coffee Agroindustry itself, while deliveries outside the city are handled through a logistics service. The logistics services used are J&T Express, Gosend, and Paxel, which can be selected according to consumer preferences.

5. Return

The return is the process of returning a product from a consumer for a specific reason. When a product is returned by a consumer, Sukmojati Coffee Agroindustry will first inspect the product's condition. Important details to check include whether the product received differs from the order or whether there are any manufacturing defects. Once this identification is complete, Sukmojati Coffee Agroindustry will contact the consumer again to process a product replacement. Furthermore, Sukmojati Coffee Agroindustry must also ensure whether the returned product is still saleable or must be discarded.

6. Enable

This process is a supporting stage related to the realization and management of the supply chain planning and implementation process (Negoro et al., 2025). At the Sukmojati Coffee Agroindustry, the enable process focuses on managing the data and resources needed to support core processes such as plan, source, make, deliver, and return. Data management at the Sukmojati Coffee Agroindustry is carried out using software such as WhatsApp and Microsoft to integrate various data ranging from raw material supply, production schedules, stock availability, consumer orders, to order delivery.

This process also includes routine evaluations to analyze labor performance, production performance, and delivery performance. The purpose of the labor performance evaluation is to analyze the performance of each labor based on their assigned tasks. The purpose of the production performance evaluation is to analyze the alignment between planning and production results, as well as the implementation of processing standards. The purpose of the delivery performance evaluation is to analyze the performance of the various delivery services used.

Added Value of Ground Coffee

The calculation of added value aims to determine the added value created from processing robusta green beans into robusta ground coffee and arabica green beans into arabica ground coffee. The results of the added value calculation are shown in Table 3.

Table 3. Added Value of Ground Coffee in the Sukmojati Coffee Agroindustry

	Variable	Robusta Ground Coffee	Arabica Ground Coffee
I.	**Output, Input, and Price**		
1	Output (kg/production)	8	8
2	Raw material input (kg/production)	10	10
3	Labor input (HOK/production)	0,375	0,375
4	Conversion factor	0,8	0,8
5	Labor coefficient	0,0375	0,0375
6	Output price (Rp/kg)	125.000	125.000
7	Avarages wages of Labor (Rp/HOK)	63.333	63.333
II.	**Revenue and Profit**		
8	Raw material price (Rp/kg)	67.000	77.000
9	Contribution of other inputs (Rp/kg)	3.515	3.515
10	Output value (Rp/kg)	100.000	100.000
11	a. Added value (Rp/kg)	29.485	19.485
	b. Added value ratio (%)	29%	19%
12	a. Labor income (Rp/kg)	2.375	2.375
	b. Labor share (%)	8%	12%
13	a. Profit (Rp/kg)	27.110	17.110
	b. Profit rate (%)	27%	17%
III.	**Remuneration for Production Factors Owner**		
14	Margin (Rp/kg)	33.000	23.000
	a. Labor income (%)	7%	10%
	b. Contribution of other inputs (%)	11%	15%
	c. Company profits (%)	82%	74%

Source: Primary Data Processed (2025)

Output, Input, and Price

The analysis of the added value of robusta and arabica ground coffee at the Sukmojati Coffee Agroindustry was conducted for one production process. The results of the calculation of the added value for each ground coffee at the Sukmojati Coffee Agroindustry are presented in Table 3. Some of the input data in this section are the output or the amount of ground coffee produced, which is 8 kg/production process for robusta ground coffee and 8 kg/production process for arabica ground coffee. The main inputs or raw materials used in a single production process are 10 kg of robusta green beans and 10 kg of arabica green beans. The labor required to process each of these robusta and arabica green beans is 0,375 HOK. The production process for robusta and arabica ground coffee requires the same amount of labor because both have the same processing process.

The conversion factor for robusta and arabica ground coffee was 0,8, respectively. This means that every 1 kilogram of green bean input produces 0,8 kg of ground coffee output. This contrasts with research by Puspitasari et al. (2024), which states that one kilogram of green beans can produce 0,25 kg of ground coffee. Differences in conversion factors are influenced by the processing

process and technology used. This aligns with Sriwana et al. (2022) statement, which explains that conversion factors reflect the effectiveness of the processing technology used. The higher the conversion factor, the greater the potential added value.

The labor coefficient for robusta and arabica ground coffee is 0,0375 HOK/kg, respectively, indicating that processing 1 kilogram of robusta green beans and arabica green beans requires 0,0375 HOK of labor, respectively. This figure is quite small because the production process for robusta and arabica ground coffee uses machine technology, so employees only act as operators who prepare raw materials, operate and monitor the production machines to ensure they run properly. This is in line with research Kembaren & Taufiqurrahman (2021) that a processing business that uses the concept of industrial automation generally requires relatively little labor because most production tasks are assigned to machines.

The output price reflects the selling price of robusta and arabica ground coffee, each at Rp 125.000/kg. The average labor wage for both robusta and arabica ground coffee is Rp 63.333/HOK. This figure is obtained from the average wages of three workers employed in each of the robusta and arabica ground coffee production processes.

Revenue and Profit

Robusta and arabica ground coffee are produced using two different types of raw materials. These differences in raw material types also lead to different raw material prices. The raw material used is robusta green beans, which cost Rp 67.000/kg, while arabica green beans cost Rp 77.000/kg. This difference in raw material prices leads to differences in production cost structures, which ultimately can affect the resulting added value.

Table 4. Comparison of Added Value and Profit Between Ground Coffee

Types of Ground Coffee	Raw Material Price (Rp/kg)	Output Price (Rp/kg)	Added Value (Rp/kg)	Added Value Ratio (%)	Profit (Rp/kg)	Profit Rate (%)
Robusta ground coffee	67.000	125.000	29.485	29	27.110	27
Arabica ground coffee	77.000	125.000	19.485	19	17.110	17

Source: Primary Data Processed (2025)

The contribution of other inputs required to produce robusta and arabica ground coffee is Rp 3.515/kg each, which includes several costs such as packaging, electricity, fuel, and machine maintenance. This is different from previous literature which found the contribution of other inputs to be Rp 6,400.40/kg (Lestari et al., 2021). The difference in the contribution of other inputs indicates differences in production costs for each processing business unit. When a processing activity requires a low contribution of other inputs, its production costs are also lower, and vice versa (Sari et al., 2022).

The results of income and profits are reflected in the added value obtained by each ground coffee product presented in Table 4. Robusta ground coffee obtained an added value of Rp 29.485 per kg with a ratio of 29% while arabica ground coffee obtained an added value of Rp 19.485 per kg with a ratio of 19%. The added value ratio of robusta and arabica ground coffee has a positive value and is included in the medium category. The post harvest processing of coffee can increase economic value because the product has been transformed into a processed product that is more ready for consumption (Ummah, 2021).

After being processed into ground coffee, the product will have a longer shelf life, a more attractive taste, and more practical and easier serving.

The added value ratio obtained shows that robusta ground coffee has better economic value than arabica ground coffee. The low added value ratio obtained for arabica ground coffee is due to the similarity between the prices of robusta and arabica ground coffee, even though the price of arabica green beans is higher than that of robusta green beans. This is in line with previous literature by Ikhwana & Fajrianti (2022), which states that raw material prices are one of the variables that can influence the added value of a product. This situation also results in a lower profit margin from selling arabica ground coffee due to the same selling price for both products, despite differing production costs. This is reflected in Table 4, which shows that the profit margin for robusta ground coffee is higher than that for arabica ground coffee. Robusta ground coffee can generate a profit margin of 27% or Rp 27.110/kg, while arabica ground coffee can only generate a profit margin of 17% or Rp 17.110/kg. These findings indicate that two ground coffee products produced by Sukmojati Coffee Agroindustry have good marketing criteria, but the robusta ground coffee can be made a priority product because it is able to generate greater profits than arabica ground coffee.

A company's profits are highly dependent on the product's selling price and the costs incurred to produce the coffee (Mirah et al., 2022). To achieve optimal profits, companies must understand that if the company incurs higher production costs, the selling price set must also be higher (Hidayat et al., 2022). Given the higher price of arabica green beans than robusta green beans, the Sukmojati Coffee Agroindustry should set a higher selling price for arabica ground coffee. This step is taken to optimize its profits.

Furthermore, the high profit margin is also influenced by the low labor share, which is 8% for robusta ground coffee and 12% for arabica ground coffee, resulting in the majority of added value being absorbed by the capital owner, the owner of the Sukmojati Coffee Agroindustry. The labor share is low because it is directly proportional to the labor coefficient, or the number of workers required for processing activities. The Sukmojati Coffee Agroindustry is a processing industry that uses machine technology, so the need for labor is relatively low.

Remunaration for Production Factors Owner

Based on the research results, it was found that the added value obtained from the production process of robusta ground coffee is higher than production process of arabica ground coffee. This is due to the lower price of robusta green beans compared to arabica green beans. Robusta and arabica ground coffee have the same supporting material costs, labor costs, and selling prices. The only difference lies in the price of raw materials. Therefore, at the same selling price, a product with lower raw material prices will have higher added value and profits due to the significantly lower difference between revenue and costs. This is in line with the research results of Raranta et al. (2018) that the difference in added value is influenced by the price of raw materials, the lower the price of raw materials, the higher the added value produced.

The added value of robusta and arabica ground coffee is distributed in 3 aspects, namely company profits, contributions from other inputs, and labor. The distribution of added value shows similarities in the distribution of remuneration between robusta coffee and arabica ground coffee, as visualized

in Figure 2. For robusta ground coffee, the distribution of remuneration includes 7% for labor, 11% for other input contributions, and 82% for company profits. And for arabica ground coffee, the distribution of remuneration includes 10% for labor, 15% for other input contributions, and 74% for company profits.

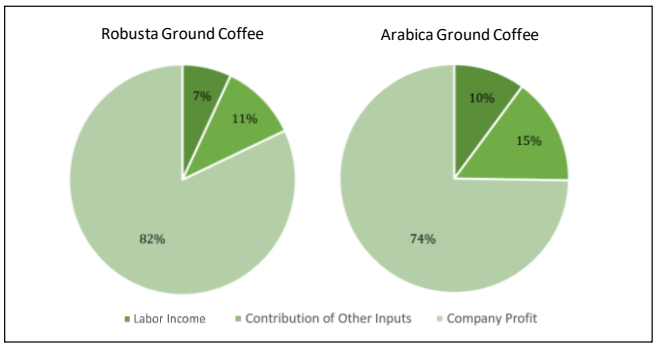

Figure 2. Distribution of Compensation for Ground Coffee in the Sukmojati Coffee Agroindustry
Source: Primary Data Processed (2025)

The similarity in the distribution patterns of these rewards shows that the largest rewards are held by the companies that own the largest capital in the industry. This research finding is also reflected in the research of Zulkarnain et al. (2023), which shows that the largest distribution of rewards in the coffee processing industry is held by companies. The Sukmojati Coffee Agroindustry has a very large initial capital investment, specifically in roasting and grinding machines, so the Sukmojati Coffee Agroindustry receives a higher return. This condition indicates that the processing activities carried out by the Sukmojati Coffee Agroindustry are capital intensive. This is in line with the findings of Rizkiawan et al. (2023) who stated that if the largest return is owned by the company, the condition is a capital intensive activity, where the company owns the largest initial capital in the form of fixed assets such as machinery and equipment used to produce a product.

CONSCLUSION AND SUGGESTIONS

The Sukmojati Coffee supply chain structure consists of three supply chain channels involving farmers, the Sukmojati Coffee Agroindustry, retailers, and coffee shops. The Sukmojati Coffee supply chain structure includes three flows: product flow, financial flow, and information flow. The application of the SCOR 12.0 model to the Sukmojati Coffee Agroindustry shows that the Sukmojati Coffee supply chain is carried out systematically through six processes, namely plan, sources, make, deliver, return, and enable. Plan involves planning raw material requirements, production, and distribution. Source encompasses the raw material procurement process, from delivery and inspection of green beans to payment. Make involves processing the green beans into ground coffee and packaging them into a product ready for distribution. Deliver are handled using a variety of services tailored to the delivery destination and consumer preferences. Return are handled responsively to maximize service and enhance customer satisfaction. Finally, enable is achieved through the use of software such as WhatsApp and Microsoft, as well as evaluation of labor, production, and delivery performance to ensure supply chain effectiveness and efficiency. This finding confirms that the smooth implementation of the supply chain does not only depend on one actor, but rather depends on all actors in the supply chain.

The added value of robusta ground coffee is Rp 29.485/kg with a ratio of 29%.

The added value of arabica ground coffee is Rp 19.485/kg with a ratio of 19%. The profit obtained from robusta ground coffee is Rp 27.110/kg with a profit rate of 27% and arabica ground coffee is Rp 17.110/kg with a profit rate of 17%. This finding confirms that the Sukmojati Coffee Agroindustry provides positive added value and is classified as a medium category so that its products are suitable for marketing.

Based on the research findings, the Sukmojati Coffee Agroindustry recommends strengthening partnerships with farmers, retailers, and coffee shops to maintain a smooth supply chain. Furthermore, production workers should wear production uniforms to prevent contamination and ensure product safety. This is very important to maintain the company's reputation in front of all supply chain actors. Based on the comparison of added value and profits from robusta and arabica ground coffee, the advice that can be given to the Sukmojati Coffee Agroindustry is to prioritize the sale of robusta ground coffee and rearrange the selling price of arabica ground coffee in order to obtain more optimal profits.

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