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Supply Chain and Value-Added Analysis of The Coffee Agroindustry in Cikajang District, Garut Regency: "Exploring Market Opportunities and Local Competitiveness"

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Abstract

Coffee plays a vital role in Indonesia's rural economy, contributing not only to employment and foreign exchange earnings but also to regional development through agro-industrial linkages. However, local coffee-producing regions such as Cikajang in Garut Regency still face structural inefficiencies in their supply chains, resulting in unequal value distribution and weak competitiveness compared to other producing areas. Understanding the mechanisms of value creation and efficiency within this supply chain is therefore essential to enhance farmers' welfare and regional competitiveness.This study aims to: (1) identify the structure of the Arabica coffee supply chain in Cikajang District, along with the roles and activities of actors at each stage; (2) measure value added at different processing levels using the Hayami method; (3) analyze the marketing efficiency of Cikajang Arabica coffee through the calculation of cost–product value ratios; and (4) examine the potential for strengthening competitiveness by improving supply chain efficiency. The results indicate that farmers remain positioned upstream with limited involvement in downstream processes, while value added increases significantly at the roasting stage, which yields the highest profit margins. The marketing efficiency analysis reveals that shorter distribution channels—such as farmer–farmer group association–roastery–consumer—are more efficient (EP 5.85%) compared to longer channels involving multiple actors. The structure of value added and marketing efficiency underscores an imbalance in profit distribution across the supply chain. Strengthening competitiveness can be achieved through farmer capacity building, cooperative institution development, distribution and logistics efficiency, geographical identity–based branding, and product diversification. These findings provide strategic implications for developing a more efficient, equitable, and sustainable local coffee supply chain.

Keywords: Arabica coffee, Value added, Marketing efficiency, Competitiveness, Supply chain

1 Introduction

In addition to its popularity among consumers, coffee also holds high economic value and contributes significantly as a source of national foreign exchange: national coffee production reached 807,580 tons

in 2024 (BPS, 2025) and export value grew by 76.33% that year (BPS, 2025). Indonesia is recorded as the fourth-largest coffee producer in the world, after Brazil, Vietnam, and Colombia. The country's main coffee-producing regions include Nanggroe Aceh Darussalam, North Sumatra, East Java, and South Sulawesi.

Although not part of these four primary centers, Garut Regency in West Java has gained an increasingly prominent role in national coffee production. The total coffee plantation area in Garut Regency reaches 5,095 hectares, of which around 2,000 hectares are planted with Arabica coffee (57% of the total coffee plantation area). Garut Arabica coffee is renowned for its distinctive flavor and high quality, enabling it to penetrate export markets in various countries, including the United States (Fauziah & Ihwana, 2020).

The coffee agroindustry in Garut Regency has been developing rapidly, encompassing processing activities from coffee cherries into dried beans, ground coffee, and ready-to-consume products. This growth indicates significant potential for enhancing the value added of coffee commodities in the region. The demand for Garut coffee comes not only from domestic consumers but also from international markets. Nevertheless, the Arabica coffee supply chain in Garut still faces various challenges, particularly at the upstream level.

Interviews with Arabica coffee farmer groups in Cikajang, Garut, revealed several fundamental issues, including poor plantation road infrastructure that hampers the distribution of harvested coffee. The absence of collectors willing to purchase directly from farms results in high transportation costs borne by farmers. Moreover, fluctuations in coffee demand, particularly during harvest seasons, along with limited raw material availability at certain times, further increase uncertainty in the supply chain system. These issues may disrupt the stability of production and distribution, thereby reducing opportunities for generating value added for both agroindustry actors and farmers.

Therefore, effective supply chain management becomes crucial in the development of Garut Arabica coffee. An efficient supply chain system can minimize risks associated with supply and demand uncertainty while ensuring that Garut Arabica coffee remains competitive in both domestic and global markets. Furthermore, integrated supply chain management can improve farmers' welfare by ensuring a more equitable distribution of profits along the production chain.

In essence, supply chain efficiency fundamentally determines local competitiveness by influencing cost structures, responsiveness, and product quality (Christopher, 2016). Simultaneously, value added strengthens competitiveness through quality improvement, innovation, and downstream processing that enhance economic returns and product differentiation (Porter, 1990; Kaplinsky & Morris, 2001). Together, these factors shape the long-term competitiveness of local commodities such as Garut Arabica coffee.

Based on this background, this study aims to: (1) identify the structure of the Arabica coffee supply chain in Cikajang District, as well as the roles and activities of actors at each stage; (2) measure the value added generated at each stage of the supply chain; (3) analyze the marketing efficiency of Cikajang Arabica coffee; and (4) examine the potential for strengthening the competitiveness of Cikajang Arabica coffee through improvements in supply chain efficiency.

2. Literature Review

2.1 Supply Chain and Coffee Sustainability (Context of West Java–Garut)

Recent research in Garut assessed the sustainability of Arabica coffee businesses across five dimensions—ecological, economic, social, marketing, and institutional—using the MDS approach. The

findings indicated a "moderately sustainable" status (average score of ±55) and emphasized the importance of strengthening marketing and institutional aspects (partnerships, market access, and price stability) throughout the supply chain from upstream to downstream. This study provides direct contextual relevance for Garut and serves as a conceptual foundation for analyzing supply chain structures and identifying potential interventions for improvement in Cikajang (Yusuf et al., 2022).

Beyond sustainability, broader studies in Indonesia highlight key factors influencing smallholder supply chain efficiency, including supplier relationships (partnerships), inventory management, logistics/transportation, and information dissemination. Empirical evidence from other major coffee-producing regions (e.g., North Toraja, Bondowoso) demonstrates improvements in efficiency through structured strategies (A'WOT/AHP) and strengthened actor coordination. These findings serve as relevant benchmarks and transferable practices for Cikajang (Yusrijal et al., 2025).

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2.2 Value Added across Supply Chain Stages (Hayami Method)

To measure the extent of "value creation" at each stage (e.g., farmer → processor → roaster → retailer), many Indonesian studies employ the Hayami method. A case study on Arabica coffee in Central Aceh revealed variations in value added across processing levels (green beans, roasted beans, ground coffee) and highlighted that process specialization and production scale influence the net value added received by actors. This approach can be directly adopted to measure value added at each stage in Cikajang (Hasni, 2022).

2.3 Marketing Efficiency in the Coffee Agribusiness

Marketing efficiency is a key concept in agribusiness studies, including in coffee supply chain systems. According to Soekartawi (2002), marketing efficiency can be assessed through the ability of marketing channels to deliver products from producers to consumers at minimal cost while ensuring a fair distribution of profits among all actors. In agribusiness marketing literature, efficiency is commonly measured by comparing total marketing costs with the total value of marketed products. Operationally, the concept is expressed as follows: $EP = \frac{TB}{TNP}$ x 100

Where:
EP = marketing efficiency (%)
TB = total cost (IDR)
TNP = total product value (IDR)

2.4 Regional Context Data (Coffee Production/Land in Garut)

To provide an empirical local context, official publications from the Central Bureau of Statistics (BPS) at the provincial and regency levels supply data on land area and coffee production in Garut. These data are essential for reinforcing the background (e.g., distribution of production centers, production dynamics) and for compiling tables on local conditions (BPS Garut Regency, 2022; BPS West Java, 2021).

3 Research Methodology

This study employed a descriptive quantitative approach supported by qualitative data to obtain a comprehensive understanding of the Arabica coffee supply chain structure in Cikajang District, Garut Regency. Research data were collected through in-depth interviews, field observations, and a review of relevant literature on supply chains and the coffee agroindustry.

The study population consisted of all primary actors in the Arabica coffee supply chain in Cikajang District. Respondents included nine coffee farmers, three collectors, one wholesaler, one milling plant manager, and ten coffee consumers, resulting in a total of 24 respondents.

The determination of respondents followed a purposive sampling technique, focusing on actors directly involved in production, distribution, and marketing processes. The selection of nine farmers represents the dominant smallholder groups in the main Arabica-producing villages of Cikajang, while the three collectors and one wholesaler reflect the limited number of intermediaries actively engaged in the regional coffee trade. The inclusion of one milling plant manager and ten coffee consumers provides a balanced perspective across upstream and downstream nodes of the supply chain. This respondent composition ensures data adequacy and contextual representativeness for the research objectives (Creswell, 2014; Sugiyono, 2019).

The level of marketing efficiency was also tested to assess whether the Arabica coffee supply chain system in Cikajang operated efficiently. This test adopted the concept of marketing efficiency from agribusiness literature (Soekartawi, 2002), by comparing total marketing costs with the total product value. A supply chain is considered more efficient if it records a lower Marketing Efficiency (EP) value.

Value-added calculations in this study were conducted using the Hayami method, as presented in Table 1. The criteria for value added are defined as follows:

If VA > 0, the development of the Arabica coffee agroindustry in Cikajang generates positive value added.
If VA < 0, the development of the Arabica coffee agroindustry in Cikajang does not generate value added, or produces negative value added.

To strengthen data validity, this study also employed source triangulation by comparing and cross-verifying information obtained from different respondents and data types—farmers, collectors, wholesalers, processors, and consumers—along with secondary data from government reports and previous research. Triangulation ensures that the conclusions drawn are credible, consistent, and contextually reliable (Creswell, 2014).

4 Research Findings and Discussion

4.1. Research Findings

4.1.1 Identifying the Structure of the Arabica Coffee Supply Chain in Cikajang District and the Roles and Activities of Actors at Each Stage

The Arabica coffee supply chain in Cikajang District, Garut Regency, involves multiple actors across upstream to downstream stages. This district is recognized as one of the Arabica coffee production centers, with a plantation area of approximately 438 hectares and a production volume of 189.84 tons in 2024 (Koperasi Produsen Saribuah Kopi, 2025). The four main coffee-producing villages are Cikandang, Margamulya, Mekarsari, and Simpang. The majority of Cikajang coffee is exported in the form of green beans (±90%), while only a small portion (±10%) is processed into ground coffee for the local market.

Based on interviews, the Cikajang coffee supply chain remains relatively simple but fragmented. Farmers act as the primary producers, with most selling their coffee in the form of fresh cherries. Cooperatives and farmer group associations (gapoktan) are responsible for post-harvest processing to produce green beans, while collectors and wholesalers serve as intermediaries in distribution. Milling

plants play a role in improving coffee quality through drying, hulling, and grading processes before being marketed to exporters.

Exporters represent a crucial node in the supply chain, linking Cikajang coffee to international markets such as the Netherlands, Japan, and the Middle East. In the domestic market, part of the coffee is distributed through roasteries, local markets, and coffee shops for direct consumption. This supply chain structure illustrates that the greatest value added remains concentrated at the cooperative, processing plant, and exporter levels, while farmers in the upstream segment retain relatively weak bargaining power.

For a clearer depiction, the structure of the Arabica coffee supply chain in Cikajang District is presented in Figure 1 below:

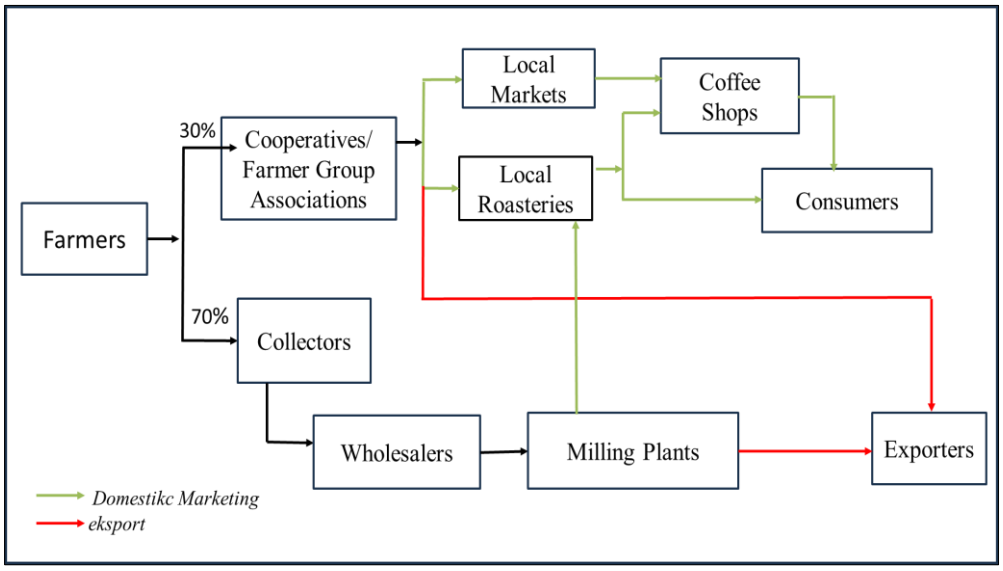

Figure 1. Structure of the Arabica Coffee Supply Chain in Cikajang District
Source: Interviews, processed (2025)

4.1.2 Assessing the Value Added Obtained at Each Stage of Coffee Product Distribution

The quantitative analysis method employed in this study to calculate the value added of Arabica coffee was the Hayami method. The values used represent averages, as coffee product prices at each stage vary within a certain range. Value-added analysis using the Hayami method requires several key variables, which are presented in Tables 1 to 4.

Table 1. Commodity Prices (per kg)

Product	Price Range (IDR)	Price Used (IDR/kg)
Cherry (red coffee cherries)	Rp 7,000 – 15,000	Rp 11,000/kg
Parchment (HS/honey/fermented coffee)	Rp 35,000 – 40,000	Rp 37,500/kg
Green Beans (ekspor)	Rp 100,000 – 120,000	Rp 110,000/kg
Roasted Beans (local premium)	Rp 200,000 – 400,000	Rp 250,000/kg

Table 2. Production Process Conversion

Stage	Input → Output	Conversion (%)

Cherry → (HS/honey/fermented coffee)	100 kg → 60 kg	60%
(HS/honey/fermented coffee) → Green Beans	60 kg → 50 kg	83,33%
Green Beans → Roasted Beans	50 kg → 47 kg	94%

Note: *Conversion is calculated as:*

$$\text{Conversion Faktor} = \frac{Output}{Input}$$

Table 3. Direct Labor per Process

Stage	Labor	Input (kg)	Workdays (person-day) per process
Cherry → Parchment	2 HOK	per 100 kg cherries	2
Parchment → Green Beans	1 HOK	per 60 kg Parchment	1
Green Beans → Roasted	0.5 HOK	per 50 kg green beans	0.5

Table 4: Other Input Costs

Stage	Other Inputs (IDR/kg input)
Cherry → Parchment	Rp 2,000
Parchment → Green Beans	Rp 3,000
Green Beans → Roasted	Rp 5,000

Using the data presented in Tables 1 through 4, several key indicators were calculated to assess the performance of each processing stage. These include the product value (IDR per kilogram of raw material), the value added generated at each stage, the distribution of value added across labor, other inputs, and profit, as well as the efficiency of conversion and the resulting margins.

Table 5. Recapitulation of Value Added Comparison of Cikajang Arabica Coffee (Hayami Method)

Variable	Stage 1: Cherry → Parchment	Stage 2: Parchment → Green Beans	Stage 3: Green Beans → Roasted
Input (kg)	100	60	50
Output (kg)	60	50	47
Conversion Factor	0.60	0.833	0.94
Output Price (IDR/kg)	37,500	110,000	250,000
Harga Input (IDR/kg)	11.000	37,500	110,000
Input Price (IDR/kg)	2,000	3,000	5.000
Labor Wages (IDR/kg)	1,600	1,333	800
Product Value (IDR/kg input)	22,500	91,667	235,000
Value Added (IDR/kg)	9,500	51,167	120,000
Value Added Ratio (%)	42.22	55.82	51.06
Profit (IDR/kg)	7,900	49,833	119,200
Profit Rate (%)	35.11	54.36	50.72
Margin (J–H) (IDR/kg)	11,500	54,167	125,000
- Labor Share of Margin / Margin (%)	13.91	2.46	0.64
- Other Input of Margin (%)	17.39	5.54	4.00
- Profit Share of Margin (%)	68.70	92.00	95.36

Base on Table 5, the results across the three stages demonstrate that value added increases substantially as the level of processing advances. While the highest profit margin is generated at the final stage—namely roasting—the contribution of direct labor at this level is relatively limited. These patterns highlight important implications for sustainability and equity within the coffee value chain, particularly regarding the distribution of economic benefits. Moreover, they suggest potential opportunities for vertical integration by farmers, enabling them to capture a greater share of the value generated along the supply chain.

4.1.3 Analyzing the Marketing Efficiency of Cikajang Arabica Coffee

Based on Figure 1, the flow of the Arabica coffee supply chain in Cikajang reveals seven distribution channels. Each of these channels was subsequently evaluated to calculate the percentage of marketing efficiency. Marketing efficiency serves as an important indicator for assessing the overall performance of a supply chain. It is expressed as the ratio of total marketing costs to the total value of the product, presented in percentage terms. The marketing efficiency values for the Cikajang Arabica coffee supply chain are presented in Table 6.

Table 6. Marketing Efficiency of Cikajang Arabica Coffee

Distribution Channel	Final Product	Total Cost (TC) (IDR/kg)	Total Product Value (TPV) (IDR/kg)	Marketing Efficiency (ME) (%
Channel 1				
Farmer → Farmers' Group (Gapoktan) → Local Market → Café → Consumer	Green Beans	7,933	91,667	**8.65**
Channel 2				
Farmer→ → Farmers' Group (Gapoktan) → Roastery → Café → Consumer	Roasted Bean	14,733	235,000	**6.27**
Channel 3				
Farmer → Gapoktan → Roastery → Consumer	Roasted Bean	13,733	235,000	**5.85**
Channel 4				
Farmer → Gapoktan → Eksporter	Green Beans	7,933 + 2,000 (eksport estimate) = 9,933	110,000	**9.03%**
Channel 5				
Farmer → Collector → Wholesaler → Processing Plant → Exporter	Green Beans	10,500	110,000	**9.55**
Channel 6				
Farmer → Collector → Wholesaler → Processing Plant → Roastery → Café → Consumer	Roasted Bean	15,500	235,000	**6.60**
Channel 7				
Farmer → Collector → Wholesaler → Processing Plant → Roastery → Consumer	Roasted Bean	14,500	235,000	**6.17%**

Based on Table 6, the marketing efficiency of Cikajang Arabica coffee was analyzed by comparing the total marketing cost (TC) with the total product value (TPV) for each distribution channel. The lower the ME value, the more efficient the channel.

Most Efficient Channels (Lowest ME):

Channel 3 (Farmer → Farmers' Group → Roastery → Consumer) recorded an ME of 5.85%, making it the most efficient channel. This efficiency is attributed to the shorter distribution chain and the limited additional costs from intermediaries or retailers. The final product in this channel is roasted coffee, which commands a higher selling price, thereby reducing the ME value.

Other relatively efficient channels include:

- Channel 7 (Farmer → Collector → Wholesaler → Processing Plant → Roastery → Consumer), with an ME of 6.17%.
- Channel 2 (which involves cafés), with an ME of 6.27%.
- Channel 6 (the longest chain), with an ME of 6.60%.

Although Channels 6 and 7 involve more intermediaries compared to Channel 3, the high market value of roasted beans ensures that distribution costs do not substantially reduce overall efficiency.

Least Efficient Channels (Highest ME):

- Channel 5 (Farmer → Collector → Wholesaler → Processing Plant → Exporter), with an ME of 9.55%.
- Channel 4 (Farmer → Farmers' Group → Exporter), with an ME of 9.03%.
- Channel 1 (Farmer → Farmers' Group → Local Market → Café → Consumer), with an ME of 8.65%.

These channels tend to sell products in the form of green beans or even parchment coffee, which have relatively lower selling prices compared to roasted beans. In addition, the involvement of multiple actors and the higher distribution costs contribute to the increase in total marketing cost (TC), thereby raising the ME value. These findings are consistent with previous research by Hartono (2019), which emphasized that the longer the distribution chain, the higher the marketing costs incurred, ultimately reducing the efficiency of agricultural distribution systems.

4.1.4 Exploring the Potential for Strengthening the Competitiveness of Local Coffee through Supply Chain Efficiency

The competitiveness of Cikajang Arabica coffee remains constrained by inefficiencies within the supply chain, particularly at the upstream and midstream levels. Efforts to enhance competitiveness should focus on improving efficiency and coordination among supply chain actors. Several potential strategies to strengthen competitiveness are outlined below:

a. Strengthening Farmers' Capacity

- Training in cultivation and post-harvest practices (fermentation, drying, manual grading).
- Utilization of simple tools for primary processing (e.g., manual hullers).
- Access to market information on prices and demand to increase farmers' bargaining power.

b. Establishing Supply Chain Institutions

- Farmer cooperatives based on quality can serve as aggregators as well as quality trainers.
- Formal partnerships with processors and factories can stabilize both prices and supply.
- Certification of origin (geographical indication) to enhance the image of Cikajang coffee.
- Positioning Cikajang, Garut Regency, as both a learning hub and a consultation center for coffee-related practices.

c. Enhancing Distribution and Logistics Efficiency

- Collective transportation from farmers or cooperatives to factories to reduce distribution costs.
- Digitalization of record-keeping and inventory monitoring to prevent overstocking and product deterioration.

d. Strengthening Local Product Identity

- Branding Cikajang coffee through packaging, farmer narratives, and geographical promotion.
- Showcasing local coffee at exhibitions and building collaborations with tourism stakeholders as a medium for promoting non-price competitiveness.

e. Product Diversification

- Developing derivative products such as cold brew coffee, herbal coffee, or naturally fermented coffee to open new market segments and increase value added.

4.2 Discussion

The findings indicate that Arabica coffee farmers in Cikajang remain positioned at the upstream end of the value chain, with limited control over value distribution, as reflected in the predominance of sales in cherry form and the relatively low share of processing (only around 10% transformed into local ground coffee). This condition resembles buyer-driven chains, in which value-added activities are concentrated downstream—such as in processing plants, exporters, and roasteries (Neilson, 2008).

However, recent studies demonstrate that sustainability certification can enhance farmers' bargaining power. Fitri, Maryunianta, Barus, and Supriana (2023) found that Arabica coffee certified by Fairtrade and Rainforest Alliance in Aceh could be sold at higher prices and granted access to premium markets. Similarly, Fajar, Fariyanti, and Priatna (2023) revealed that plantations certified under C.A.F.E. Practices exhibited higher levels of social, economic, and environmental sustainability compared to their non-certified counterparts. These insights are relevant to the Cikajang context, where the adoption of certification and downstream integration through vertical partnerships could increase value addition and improve farmers' welfare.

The study further shows that value added rises substantially with higher processing levels—from cherry to parchment, green bean, and roasted bean—mirroring patterns reported in contemporary literature. For instance, research conducted in Lahat (South Sumatra) applying the Hayami method found that processing Robusta coffee into ground coffee generated an added value of IDR 78,400 per kg, underscoring the significant economic potential of downstream processing (Lestari et al., 2025). Likewise, a study on Arabica agroindustry in North Sumatra reported a value-added ratio of up to 47.34% and profit margins of 97.59%, although farmers received a relatively small share due to limited processing capacity and market access (Syukur et al., 2025).

These findings reinforce that the highest value-added occurs at the downstream processing stage (roasting), while the share accruing to farmers and labor remains relatively low. Consequently, strategies to strengthen downstream processing—such as the promotion of cooperatives and local MSME-based roasting—are crucial for ensuring a more equitable distribution of value.

Furthermore, the results demonstrate that the shortest distribution channel (Farmer → Farmer Group Association → Roastery → Consumer) exhibited the highest marketing efficiency (EP 5.85%), whereas longer channels involving multiple intermediaries led to lower efficiency (EP up to 9.55%). This aligns with Saragih et al. (2022), who emphasized that longer coffee distribution chains are associated with higher marketing costs, thereby reducing efficiency. Similarly, Raharjo and Santoso (2021) found that the most efficient channels were shorter ones involving value-added products (roasted beans), as greater margins could be returned to farmers.

An important discussion point concerns the necessity of promoting shorter supply chains through strengthened farmer/cooperative institutions and downstream processing. Such measures would allow farmers to move beyond the role of mere price takers at the upstream level and secure a greater share of value within the chain. This is further supported by Simamora et al. (2023), who highlighted the role of vertical partnerships and integration with roasteries or exporters as strategies for improving both marketing efficiency and farmers' welfare.

The competitiveness of Cikajang Arabica coffee remains constrained by inefficiencies in the supply chain, particularly at the upstream stage where farmers tend to sell cherries with low value-added. The results underscore the need for farmer capacity building through training in cultivation, post-harvest processing, and access to market information, thereby enhancing bargaining power. This finding

resonates with Hidayat et al. (2020), who stressed that quality training and market access are key determinants of strengthening the competitiveness of Indonesian coffee.

In addition, quality-based farmer cooperatives can serve as aggregators and intermediaries to downstream markets. Susanto et al. (2021) demonstrated that cooperatives integrated with processors or exporters contribute to price stabilization and more efficient supply chain coordination. Other strategies include geographical indication certification and local branding, both of which have been shown to increase the market value of coffee in domestic and international markets (Rahman et al., 2022). Beyond this, supply chain digitalization and innovative product diversification (such as cold brew or naturally fermented coffee) open opportunities to strengthen non-price competitiveness. According to Simamora et al. (2023), downstream upgrading strategies based on product innovation and local identity not only enhance value-added but also reinforce the sustainability of coffee competitiveness in the global market.

Integrating Sustainability Dimensions (SDG 12 Context): In alignment with the principles of sustainable development, the competitiveness of the Cikajang Arabica coffee supply chain must integrate environmental and social dimensions consistent with SDG 12 (Responsible Consumption and Production). Environmentally, the implementation of shade-grown systems, organic fertilizers, and the reuse of coffee waste can reduce the ecological footprint and maintain soil health (FAO, 2023). Socially, strengthening farmer cooperatives supports inclusive economic growth, fair income distribution, gender participation, and community empowerment. Moreover, responsible consumption patterns—such as consumer preference for sustainable coffee—encourage producers to adopt environmentally friendly practices, forming a circular relationship between ethical demand and sustainable production. Integrating sustainability into the Cikajang coffee chain thus ensures long-term competitiveness while contributing to global sustainability goals (UN, 2020).

Accordingly, strengthening the competitiveness of Cikajang coffee must be directed toward a combination of farmer empowerment, institutional development, distribution efficiency, and the creation of a distinctive local identity..

5 Conclusions and Suggestion

5.1 Conclusions

The study on the Arabica coffee supply chain in Cikajang District revealed several key findings. First, the supply chain structure remains relatively simple yet fragmented, with sales dominated by cherries and green beans, leaving farmers with weak bargaining power. Second, the value-added analysis using the Hayami method confirmed that the highest increase in value occurs at the downstream stage, particularly roasting, while farmers continue to capture only a small portion of the profit. Third, the marketing efficiency analysis demonstrated that shorter distribution channels—such as farmers selling through farmer group associations directly to roasteries—are more efficient than longer chains involving multiple intermediaries. Fourth, although the competitiveness of Cikajang Arabica coffee remains limited, it holds considerable potential to be enhanced through farmer capacity building, the establishment of quality-based cooperatives, distribution efficiency, and branding and product diversification grounded in local identity.

Accordingly, strategies to improve the competitiveness of Cikajang coffee should focus on stronger vertical integration, better coordination among supply chain actors, and the creation of value-added activities at the upstream level, in order to ensure a more equitable and sustainable distribution of benefits across the supply chain.

5.2 Suggestion

Efforts to strengthen the competitiveness of Cikajang Arabica coffee in Garut should be directed toward empowering farmers through capacity building in cultivation, post-harvest handling, and simple processing, thereby enabling them to capture greater value-added. Farmer cooperatives should be reinforced as aggregators and quality training centers, while also serving as intermediaries in partnerships with downstream industries. Local governments are expected to provide support through downstream development facilitation, the provision of efficient distribution infrastructure, and the promotion of Cikajang Arabica coffee's geographical indication. Moreover, future research is recommended to examine the feasibility of derivative product innovations and to integrate sustainability dimensions into the Arabica coffee supply chain..

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