Collective Marketing Performance of Coffee Beans in Lampung Province

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ARTICLE INFORMATION

ABSTRACT

This study aims to identify actors in collective marketing channels and analyze the collective marketing performance of coffee beans in Lampung Province, Indonesia. Our research samples consisted of 50 coffee farmers in West Lampung Regency. They were randomly selected from farmer groups. We used the analytical method to assess the collective marketing performance by the marketing margin analysis. The analysis results indicated that many actors were involved in the marketing channel, including collectors, wholesalers, farmer groups, Federate Farmers Groups, Joint Business Groups, and exporters. Their involvement increased the handling costs during the marketing process. There are four collective marketing channels of coffee beans identified. Based on the results of the marketing margin analysis, the most efficient collective marketing channel is direct selling to Joint Business Group.

Keywords: Coffee Beans, Collective Marketing, Joint Business Group, Marketing Channel, Performance

INTRODUCTION

Lampung Province is one of the potential centers of coffee bean production in Indonesia. Its contribution to the national export volume of coffee beans in 2017 is 67.8% (Central Bureau of Statistics, 2018). Most of the coffee products are exported coffee beans (Noer, 2019) and the price at the farmer level highly sticks to the price at the exporter level (Fitriani, Agus, & Noer, 2008).

West Lampung Regency is an area with the largest robusta coffee plantation area in Lampung. Its area of coffee plantations reaches 36.4% of the total area of coffee plantations in Lampung. Moreover, the contribution of coffee bean production reached 43.54% of the total production within the province (Lampung Provincial Plantation Office, 2018).

Despite its great contribution to national exports, the marketing of coffee beans at the farmer level is disadvantageous. The farmers are faced with a market system that tends to be oligopsonistic (Noer, Sendjaja, Deliana, & Noor, 2017). As they reconcile with a minor bargaining position, the prices tend to be low and erratic (Bhakti, 2011; Imron & Satrya, 2019).

Much evidence suggests that farmers successfully participated through collective action institutionally (Narrod et al., 2009). In the context of collective marketing, organizations, either formal or informal, are the liaisons between consumers and producers that allow farmers to participate in market development (Bacon 2005; Varangis, Giovanucci, & Lewin, 2003).

Federate Farmers Group (FFG) is a formal organization in which several farmer groups joined and jointly worked to increase economies of scale and production efficiency. In accordance with Agriculture Ministerial Regulation No. 273 of 2007, the FFG is to build cooperation and create more efficient and effective farming.

Join to Business Group (JBG) is another formal organization at the farmer level, established based on Agriculture Ministerial Regulation No. 33 of 2017. As an institutional mediation partnership, JBG concentrates its attention on the marketing aspect of the farmer products to help increase farmers' income by promoting marketing efficiency. It also provides guidance and assistance to farmers. It is led by the younger generation of farmers to enhance their role in the success of government programs, especially in building the competitiveness and bargaining position of farmers.

Farmer participation in both groups is believed to capably build mutual strength and allow them to improve and increase their position in price dealing. JBG has established a partnership in the marketing of coffee beans in West Lampung with exporters (Noer, Handayani, & Fatih, 2018). This study aims to identify actors in collective marketing channels and analyze their collective marketing performance.

LITERATURE REVIEW

Hellin, Lundy, and Meijer (2007) investigated the benefits of farmer organizations on commodities from the high transaction costs associated with market access in contrasting situations (traditional and commercial). The research focuses on small producers in producer associations, and the investigation is directed at the three official

producer organizations. The results show that farmer organizations directly related to supermarkets are more economical and sustainable.

Fischer and Qaim (2012) examined the impact of farmer marketing organizations (cooperatives) and the determinants of group membership. It was found that the income effect was positive for active group members. This study analyzed the effects of group membership on access to information and innovation, input intensification, commercialization, and broader household well-being. This article also contributes as literature to analyze examples of market-oriented producer farmer groups and provides insight into the determinants of group membership. For example, understanding whether marginal farmers are motivated to join is essential from a poverty perspective.

Bernard, Taffese, and Gabre (2008) found that farmer organizations achieve economies of scale and save on external transaction costs, reduce information asymmetry, and build market power. The benefits are mostly in terms of better access to input and output markets, including technology and information. The farmer's choice of whether to join the group depends on the comparison of benefits and costs. The average price per kg of a product increases for members who market collectively. There is an increase in income for members who sell through groups. This implies that group membership positively impacts household welfare.

Wollni and Zeller (2006) explored the marketing performance of farmers in the market. They investigated the determining factors of participation in specialty markets and whether participation in specialty markets or cooperatives leads to higher prices for coffee farmers. The variables observed in the farmer marketing performance model are the attributes of marketing channels and household characteristics. Attributes of a marketing channel refer to the expected price, the services offered, such as credit and technical assistance, and product terms. Farmer marketing performance is analyzed and measured in terms of the average price obtained by farmers at the end of the season.

Shiferaw, Obare, Muricho, and Silim (2009) conducted research on producer marketing groups by examining the influence of farmer marketing groups on producer prices and technology uptake, evaluating institutional and organizational factors that influence the performance of these groups, and discussing how collective action and policy issues affect capital constraints, growth, and development of the groups. It investigated the potential of rural institutions (farmer organizations, rules, and enforcement mechanisms) to address market imperfections and facilitate access to new technologies in rural areas. Bijman and Wollni (2008) examined the role of producer organizations (PO) in strengthening smallholder market access in developing countries, especially in strengthening vertical coordination along the agricultural food supply chain. The study results underlined effective reduction of the opportunistic risks associated with transaction costs caused by vertical integration from farmers to the processing and marketing chain stages. Producer organizations are a form of collective action strengthening the position of smallholders in the national market because they can provide access to credit, inputs, and technical assistance, thereby assisting farmers in improving product quality to the level required in modern supply chains.

RESEARCH METHOD

This study was conducted inoJulym2020, by adhering to the social and physical distancing established by the government. This study applied survey methods to obtain facts and collect factual information in a region (Nazir, 2005). This method reveals the

existing phenomenon and explains it in depth. The study's focus was to analyze coffee beans' collective marketing performance, with the price the farmers received, farmer's share, and farmer's income as main indicators.

The study population was small-scale coffee farmers in Pekon Tribudisyukur, Sumberjaya Subdistrict, West Lampung Regency. We randomly selected 50 coffee farmers (with less than two ha land area) from the population for further data collection. The data collection was also conducted through interviews using questionnaires from collecting traders at the village and sub-district level, wholesalers, and exporters who partnered with the farmer groups. The samples from collecting traders were intentionally selected based on information from wholesalers.

The collective marketing performance is analyzed in two stages. The first stage is analyzing marketing margins to determine the farmers' share in each identified collective marketing channel. The increase in the marketing efficiency of coffee beans is determined by the value of the marketing margin and the share of the price the farmers receive. The marketing margin analysis was adopted from several previous studies (e.g., Abubakar, Yantu, & Asih, 2013; Barokatuminalloh & Widayaningsih, 2009; Hellin et al., 2007; Shiferaw et al., 2009; Supriatna & Dradjat, 2012).

The observed variables consist of the attributes of the marketing channel and the characteristics of the farmer's household. The marketing channel attributes refer to the expected price, services the group offers, and the quality of the coffee bean. Household characteristics include socio-economic factors, such as education, age, land area, labor availability, institutional access, and other sources of income. In the second stage, marketing performance is measured based on the farmers' average price of coffee beans at the end of the season. Marketing performance is assumed to be a function of a selected marketing channel from a set of exogenous variables.

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The data analysis method used to assess the collective marketing performance of coffee beans is marketing margin analysis. Coffee bean marketing margin is the difference between the price paid by consumers and that received by the farmers (Cramer, Jensen, & Southgate, 1997). The price at the consumer level is the price paid by the exporter of coffee beans (base price), and the price that occurs at the farmer level is the price that farmers receive when selling coffee beans. The marketing margin for coffee beans is calculated by the following formula:

$$M = Pr - Pf \tag{1}$$

where,
M = Marketing margin
Pr = Price at the final consumer level (exporter)
Pf = Price at the farmer-level

Farmer share is a portion of the price received by farmers from existing marketing channels (Tomek & Robinson, 1990), formulated as follows:

$$Fs = \frac{Pf}{Pr} \times 100\% \tag{2}$$

Where
Fs = Share of the price received by coffee farmers
Pr = Price at the final consumer level (exporter)
Pf = Price at the farmer level

RESULTS

Based on the mapping carried out in the research area, several actors in the coffee bean marketing channels were identified. They are farmers, collectors, wholesalers, farmer groups, Joint Business Groups (JBG), Federate Farmer Groups (FFG), and exporters. Figure 1 illustrates the relationship among these actors in the coffee bean marketing channel (individual and collective).
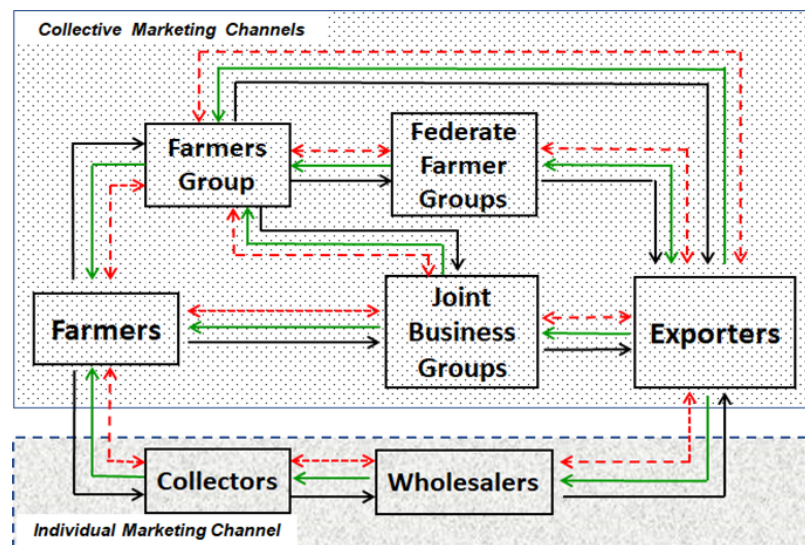

Figure 1. Coffee Beans Marketing Channels in Lampung Province

Note: → Flow of product (coffee bean); → Flow of money
- → Flow of information.

Figure 1 describes that the actors in the coffee bean marketing channel are linked through product flow, money flow, and information flow. The product flow starts from the production process of wet picked coffee (cherry), then processed to coffee bean, and finally reaches the exporter. The flow of money is the transaction between actors, starting from the exporter as a coffee bean consumer, continuing to JBG/FFG, farmers groups, wholesalers, collectors, and finally to farmers. Moreover, the flow of information is abstract. However, it becomes the basis of decision-making about the product and money flow in coffee bean marketing channels. The flow of products and money runs well if the flow of information between the actors in marketing channels is well established.

The results of this study reveal four collective marketing channels for coffee beans in Lampung Province, namely:
1. Farmers ⟶ Farmer Groups ⟶ Exporters

2. Farmers ⟶ Farmer Groups ⟶ Federat Farmer Groups ⟶ Exporters
3. Farmers ⟶ Farmer Groups ⟶ Joint Business Groups ⟶ Exporters
4. Farmers ⟶ Joint Business Groups ⟶ Exporters

The marketing channels of coffee beans in the research area were diverse. The actors carried out various marketing function activities (exchange, physical, and facility functions). Collectors/intermediaries/collecting traders are actors who are directly related to farmers, carrying out purchasing and transportation activities.

Table 1. Marketing Margin, Cost, and Farmer's Share in the Collective Marketing Channel of Coffee Beans

NO.	MARKETING ACTORS	PRICE	COLLECTIVE MARKETING CHANNELS		
1	FARMERS		1	2 & 3	4
	Price of farmers (IDR/kg)		20,259.80	20,259.80	20,259.80
	Total cost of farmers (IDR/kg)	1,300.00			
	Marketing margin (IDR/kg)		1,540.20	1,540.20	2,740.20
	Profit margin (IDR/kg)		240.20	240.20	1,440.20
	share (%)		12.53	15.96	78.77
2	COLLECTORS				
	Price of collectors (IDR/kg)		21,896.00	21,896.00	21,896.00
	Cost of collectors				
	Cost of transport (IDR/kg)	335.66			
	Packing (IDR/kg	100.00			
	Total cost (IDR/kg)	435.66			
	Marketing margin (IDR/kg)				
	Profit margin (IDR/kg)				
	share (%)				
3	FARMER GROUPS				
	Price of farmer groups (IDR/kg)		21,800.00	21,800.00	21,800.00
	Total cost of farmer groups (IDR/kg)	323.77			
	Marketing margin (IDR/kg)		2,000.00	1,200.00	
	Profit margin (IDR/kg)		1.676.23	876.23	
	share (%)		87.47	58.24	
4	WHOLESALERS				
	Price of Wholesalers (IDR/kg)		22,500.00	22,500.00	22,500.00
	total Cost of Wholesalers (IDR/kg)	783.33			
	Marketing margin (IDR/kg)				
	Profit margin (IDR/kg)				
	share (%)				
5	FFG/JBG				
	Price of FFG/JBG (IDR/kg)		23,000.00	23,000.00	23,000.00
	Total Cost of FFG/JBG (IDR/kg)	411.89			
	Marketing margin (IDR/kg)			800.00	800.00
	Profit margin (IDR/kg)			388.11	388.11

	share (%)			25.80	21.23
6	EXPORTERS				
	Price of exporters (IDR/kg)		23,800.00	23,800.00	23,800.00
	Total Marketing margin (IDR/kg)		3,540.20	3,540.20	3,540.20
	Total Profit margin (IDR/kg)		1,504.53	1,916.42	1,828.31
	Total share (%)		100.00	100.00	100.00

DISCUSSION

Based on the results, in addition to selling collectively, farmers also sell individually. Collective coffee bean marketing channels (shown at the top of Figure 1), and individual coffee bean marketing channels (shown at the bottom of Figure 1). Generally, coffee bean sales are in the form of raw materials. Farmers sell them individually to collectors/big traders called *cingkau kawe* and collectively to farmer groups/federate farmer groups/joint business groups and end up with exporter agents in the sub-district. Most of the coffee sales are in bulk or raw material, sold to collectors and wholesalers, and some are sold to groups. The group will carry out a sorting process to separate the coffee beans that meet the exporter's requirements.

Farmers are free to sell coffee beans either individually (directly to collectors) or collectively through groups. Both collectively and individually, the prevailing price at the farmer level is the base price obtained as a result of the formulation using international prices minus the costs incurred from the marketing process by each marketing actor. The international export price as the reference is the London Stock Exchange. Farmers, for various reasons, such as the need for cash or to pay debts sometimes cannot sell to groups so they sell to collectors. In addition, no obligation binds farmers to sell their produce to the group, causing farmers to have the freedom to opt for a better price.

For farmers with coffee plantations located in mountainous areas and far from the group collection center, transportation factors sometimes become an obstacle insisting them to sell to collectors. Other factors such as aspects of emotional closeness and reciprocal relationships between farmers and *cingkau kawe* (such as business capital loans) become a binder so that farmers do not sell to other collectors. Dharmawan (2007) stated that an unshakable capital relationship between lenders or moneylenders and small farmers in rural areas is highly controversial because the establishment of a social security network of livelihoods is based on a strong mutual trust between them. For farmers, expensive transaction costs can still be accepted as long as collectors/*cingkau kawe* can replace group functions and provide a sense of security for farmers. This attachment causes farmers to have no bargaining position and accept the prices that have been set by the collectors.

Based on the marketing margin analysis in Table 1, the collective marketing channel in which farmers sell the coffee bean directly to JBG (Channel 4) has the highest profit-sharing value of 78.77 percent of the farmer share, compared with the other channels. It provides the highest price and benefits for them. Farmer's share in marketing channels accelerates the increase of farmers' income in the collective marketing channels and indicates farmers' welfare.

In institutional mediation, the main role of JBG is to initiate the mediation partnership to increase farmers' income, in which many issues were discussed, such as price negotiation and assistance to farmers related to the quality standard of coffee beans.

This study underlines that the role of mediation partnership is vital since the data analysis found that only 57.9% of coffee beans produced by the farmers meet the quality standard. The mediation partnership motivates and stimulates them to improve the coffee bean quality.

The Joint Business Group formed by coffee farmers in West Lampung Regency institutionally form consisted of farmer groups and a combination of coffee farmer groups. The main purpose of establishing a joint business group is to organize collective marketing of coffee beans to help increase the price received by farmers. It also provides guidance and assistance to farmers in managing coffee plantations and post-harvest coffee to fulfill 4C certification requirements initiated by partners (universities and exporters). The collective marketing organization is carried out by the joint business group by centralizing and coordinating the purchasing, handling (weighing, packaging, quality inspection according to standards), and sale of coffee beans to partners. JBG has been able to carry out the function of coordinating with buyer partners (exporters) and providing higher prices to farmers (IDR 23,800.00/kg)

Farmer organizations deliver coordination functions by shortening the marketing chain between producers and buyers. In market failure resulted from monopsony or oligopsony, the organizations also serve as negotiators in the price dealing. The results of this study are in line with the results of previous research, which showed the positive role of farmers' organizations in improving farmers' bargaining position in marketing. Handayani, Affandi, and Irawati (2019) contended that farmer organizations can improve product competitiveness in supply chain systems. Murray-Prior (2007) underlined that collaborative marketing groups are the right form of organization to facilitate the marketing of smallholder products in developing countries. Moreover, Bijman and Wollni (2008) and Neilson (2008) reported that producer organizations could strengthen the access market of small farmers in developing countries.

Fischer & Qaim (2012) found the positive influence of collective action of farmer groups and farmers' marketing organizations as important catalysts for innovation through the efficient application of information flows. Marketing partnerships through informal associations or groups improve marketing channel performance and marketing efficiency (Supriatna & Dradjat, 2012). Kalangi, Lombogia, and Regar (2021) supported this phenomenon and showed that the prevailing price at the level of farmers who sell individually is far below the normal price prevailing in the market compared to those who sell to company partners.

CONCLUSION

The results of this study revealed that there are four channels of coffee bean collective marketing in Lampung Province. They are:
   (1) Farmers – Farmer Groups – Exporters;
   (2) Farmers – Farmer Groups – Federate Farmer Groups – Exporters;
   (3) Farmers – Farmer Groups – Joint Business Groups – Exporters; and
   (4) Farmers – Joint Business Groups -– Exporters.

Based on the marketing margin analysis, the collective marketing channel in which farmers sell the coffee bean directly to Joint Business Groups has the highest profit-sharing compared with other channels (Channels 4). Also, the roles of JBGs in the collective marketing are of importance. They organize the coffee bean collection from farmers, handle the products (e.g., quality standard checks, weighing, and packaging),

and the sale to exporters. The series of activities is one of the determining factors in increasing marketing efficiency on the marketing channel. To vividly describe this phenomenon, further studies are needed.

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