Study on the Roles and Benefits of Cooperative Producers of Coffee Margamulya in Java Preanger Coffee Agribusiness

E Djuwendah¹, T Karyani¹, A H Sadei¹ and H Hapsari¹

¹Department of Socio-economic Agriculture, Padjadjaran University, Jl Raya Bandung-Sumedang KM 21 Jatinangor, West Java, Indonesia 45363

E-mail : endah.djuwendah@unpad.ac.id

Abstract. Cooperative Producers of Coffee Margamulya (CPCM) is one of the cooperatives that help coffee farmers in Pangalengan to access capital and market with other parties. This research aims are: (1) to identify the performance of Coffee Producers Cooperative Margamulya, and (2) to identify the role and impact of cooperative in agribusiness java preanger coffee. The research design used is qualitative descriptive with case study method. The research result showed that Margamulya Coffee Producers Cooperative had an important role in the development of Java Preanger coffee farming in terms of procurement of production input, facilitation of production process, product marketing, financial service, business risk minimization, and human resource development. The impact of cooperative’s activities on the success of coffee farming are: ensuring the continuous input supply with cheaper price, standardization and improvement of product quality, increasing production volume, establishing effective distribution network, providing price guarantee, reducing the risk of production failure, and increasing the income of farming.

1. Introduction

Coffee is one of the leading commodities of plantation with high economic value for Indonesia. West Java has great coffee development potential because of the supporting natural resources and having a typical coffee known as Java Preanger coffee. Pangalengan Subdistrict of Bandung Regency has several mountainous areas as the center of Arabica coffee development such as Mount Tilu, Mount Patuha, and Mount Malabar with the coffee planting area reaching 1,312.20 hectares [1].

According to the research result of Indonesian Coffee and Cocoa Research Institute (Balai Penelitian Kopi dan Kakao Indonesia) of Jember in 2012, Mount Tilu area has the potential of producing high quality coffee of specialty type having the cupping test score 84.08 with excellent category. In 2014, it got cupping test certificate with the score 84.67 [2].

The production of Arabica coffee in Pangalengan is still dominated by smallholders, where small farmers with uneconomic size of farms (<0.5 ha) become the main producers of coffee [3]. On the other hand, farmers face the demands of coffee market dynamics related to the demand for quality products and the products that consider environmental issues. In order to accommodate the agribusiness of Java Preanger Arabica coffee in Margamulya Village, Cooperative coffee producers Margamulya (CPCM) was founded in 2014. CPCM provides services to the cooperative’s members, which are Arabica coffee farmers, in the forms of provision of production facilities, development of production process, as well as marketing and facilitation of coffee farmers with financial institutions to meet the capital requirement for coffee farming.

The existence of a professionally managed cooperative in the coffee production center will provide great benefits for the development of Java Preanger coffee farming and coffee agro-industrialization in order to increase the competitiveness of coffee, raise coffee farmers’ income, and spur the local economy.
2. Materials and Methods
This research used qualitative method. Qualitative research method is used to understand the phenomena experienced by the research subjects such as behavior, perception, motivation, and action holistically by way of description in the form of words and language in a special context that is natural, and by utilizing various scientific methods [4]. The research technique was case study. Each conclusion is only in certain case, in the sense that it cannot be generalized. The data sources were primary and secondary data. The primary data were obtained from interviews with the cooperative’s members and management. The secondary data were obtained through literature study.

3. Results and Discussion
3.1. The Performance of Cooperative coffee producers Margamulya
The people in Pangalengan Subdistrict started to develop coffee in 2001, which was originally planted in Perhutani land. The cultivation of coffee from year to year continued to grow, and in 2003, Pusakasari forest farmer group was formed. Subsequently in 2006, a forest village community institution (Lembaga Masyarakat Desa Hutan/hereafter called LMDH) was established. In 2007, LMDH of Margamulya obtained coffee seedlings of 300,000 trees to be distributed to other farmer groups. In 2008, Margamulya farmer group, which was the forerunner to the establishment of the CPCM was founded.

Producer cooperatives are cooperatives where people who produce certain products come together and often find them in the sector of agriculture. Producer cooperatives provide services that support the improvement of the business or the profit of its members. According to Chaerudin Manaf and M. Nuraidi (2016), producer cooperatives assist farmers in providing agricultural production facilities, procurement of tools for cultivation process, providing agricultural crops processing facilities and its marketing, so that farmers can increase the added value and competitiveness of their agricultural products. In turn, they will increase farmers’ income.

Cooperative coffee producers Margamulya was officially established through the Notarial Deed No. 9 dated March 18, 2014, and is located on Jl. Raya Bandung-Pangalengan Km 36.5 Margamulya Village. At the beginning of its establishment, the cooperative had 140 members of coffee farmers. In 2016, the members increased to 165 people. The facilities owned by the cooperative were coffee processing plant and crops processing unit (Unit Pengelolaan Hasil/UHP), which were obtained from the government in 2011. Other facilities included coffee processing warehouse, pulping machine (pulper), hller, grader, roaster, and espresso machine. With the crops processing facilities, the cooperative was able to collect 300 tons of coffee cherries per harvest season, and to process 70 tons of green beans through wet processing method. The quality of its coffee products was certified by the Indonesian National Standard (Standar Nasional Indonesia/SNI), UTZ Certified, and Halal Certificate.

CPCM had a collective business mission, namely to coordinate coffee from the community to be processed, and to help market it, so that it’s expected to increase the income of its members. According to the statement from Moch. Aleh, what is meant by the collective system in business activities is as follows:

“Collective” means working together … also together in processing … one of the examples is that there were those who just stored goods in us … then, we processed them … after processed into green beans, there would be payment to members who stored the coffee … like that … and they were processed by our colleagues, not outsiders. However, they were also paid. Thus, we are working together; if Pak Aleh is absent, the others keep going on … whoever… this is co-owned. Not controlled only by us …”

Coffee processing activity in Cooperative coffee producers Margamulya applies a wet processing method, consisting of pulping with pulper, and then the coffee beans are fermented for 12 hours to remove mucus in the coffee beans. After that, the resulting coffee beans are called coffee grains, which are then washed by using a washer. After the coffee grains are cleaned from various impurities, then the coffee beans are dried until the water content is ± 30%. After drying, the coffee beans are inserted into the huller machine to remove the horns and the silver skin (epidermis), resulting in green beans. Then,
the green beans are dried again until the water content is close to 12%, and the then coffee green beans are produced. The coffee green beans are then stored in sacks and ready to be sold to consumers.

CPCM’s business in coffee distribution and marketing included three activities, namely the purchase of coffee cherries and coffee grains from the members, the consignation, which means selling the products of non-members, and custom working on coffee (maklunan kopi). The purchases of coffee cherries and coffee grains were respectively with the price of IDR 7,000 and IDR 23,000 per kg. The purchase system from non-members was the buying-and-sell-off (jual-lepas), while the purchase from members with cash-and-back system. This means that the other reciprocities were in the forms of training, assistance, crops production facilities, and so forth. The coffee processing fees from non-members were kept in cash to be used as the cooperative cash reserves and not distributed to the members.

Consignation means the activity of storing coffee of the members and non-members in order that the sales are to be processed and assisted by the cooperative. Consignation fee was IDR 3,000/kg for the members. The processing and selling fees for non-members of the cooperative were 10% of the sales value. From Maklunan, a processing of coffee cherries or grain beans (HS) into coffee green beans from non-cooperative members, it received a fee of IDR 3,000/kg of cherries and IDR 1,500/kg of hold Skin (HS).

Coffee selling system conducted by CPCM was “Buying-processing-selling” (beli-olah-jual), meaning that the cooperative immediately processed the coffee cherries bought from the farmers, and then immediately sold them in order that the result of payment would be able to be used to buy the other coffee cherries. This system was applied because of the limited capital owned by the cooperative. This was as expressed by the treasurer of the cooperative, Wahyu Ginanjar.

“…So, the system was buying-processing-selling…. Come money… then, buying, processing, and selling more… so, if supplied for the stock, they would really appear, but by performing buying-processing-delivering immediately, there will be no stock here. However, in the accumulation of money, the accumulation of production will increase… so is the system… Within 6 months of harvesting it, the sales are done several times. .... The faster the sales the more our production...”

![Figure 1](image)

**Figure 1.** The distribution flow of Java Preanger coffee in Margamulya Village

In the market structure of coffee produced by CPCM, about 70% of the total processing results were sold to the exporter, PT. Taman Delta Indonesia, located in Semarang of Central Java. 30% of the processed coffee beans were sold to cafés. The rejected coffee beans were sold to local coffee processing companies.
Table 1. Green Beans Coffee Sale Price Based on Market Target of 2014

| No | Target Market                                    | US$ /kg |
|----|-------------------------------------------------|---------|
| 1  | PT Taman Delta Indonesia                        | 6 dollars |
| 2  | Aroma, Glory Morning, other cafés               | 5 dollars |

The specification of Java Preanger coffee beans requested by PT Taman Delta were specialty quality with the UTZ certified, while Aroma, Glory Morning, and other cafes only demanded the requirement of specialty Arabica coffee beans.

3.2. The Role and Impacts of CPCM in the Development of Java Preanger Coffee Farming

To identify the role of cooperative in agroindustry/agribusiness, it can be mapped on the upstream to downstream subsystems (off-farm), so it can provide benefits for members of cooperative in increasing their income. Based on agribusiness conceptualization approach, the role of CPCM is presented in Table 2.

Table 2. The Roles and Impacts of CPCM in Java Preanger Coffee Agribusiness

| No | The Roles of Margamulya Coffee Producers Cooperative | The Impacts on the Members                                                                   |
|----|-------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 1  | Procurement of farming inputs:                        | - Availability of quality coffee seedlings                                                  |
|    | - Performing quality coffee seedlings measurement     | - Getting the seedlings for free                                                             |
|    | - Performing the distribution of free coffee          | - Getting free pest repellent                                                               |
|    |   seedlings to coffee farmers                         | - Availability of capital                                                                     |
|    | - Assisting the distribution of pest                  |                                                                                             |
|    |   repellents to farmers                              |                                                                                             |
|    | - Providing loans for coffee farming capital          |                                                                                             |
| 2  | Production process (coffee farming)                   | - Ability to carry out cultivation technique according to the Standard Operational Procedure of UTZ Certified |
|    | - Fostering farmers in coffee farming according to UTZ certified SOP | - Increased quality and quantity of the member’s coffee yields                             |
|    | - Facilitation and assistance of the transfer of     |                                                                                             |
|    |   coffee farming technology, IPM, harvest, and post-harvest |                                                                                             |
| 3  | Coffee processing (agroindustry)                     | - The Increase of added value of coffee so that the price is feasible and they have loyal market shares |
|    | - Processing coffee cherries into green beans,       | - Providing job opportunities to members of the cooperative                                |
|    |   roasted beans, and instant coffee (ready to brew)  |                                                                                             |
|    | - Conducting custom work on coffee (maklun)          |                                                                                             |
|    |   ordered by non-members                             |                                                                                             |
|    | - Increasing the quality of the products              |                                                                                             |
| 4  | Product marketing                                   | - Easy in coffee marketing                                                                 |
|    | - Buying coffee cherries from farmers                | - Certainty of selling and market prices                                                     |
|    | - Providing price guarantee                          | - Members of cooperatives becoming the agents of distribution and promotion of the products |
|    | - Conducting market research                          |                                                                                             |
|    | - Increasing the product distribution network        |                                                                                             |
Financial services
- Providing recommendations and guarantee of lending money to banks
- Providing loans in limited quantities
- Easy access to capital from banks
- Getting loan for farming capital from the cooperative

Minimization of farming risk
- Providing storage facilities (warehouse)
- Providing information center of quality, price, and coffee market, in the cooperation with Local Government Office of Cooperative (Dinas Koperasi), SMEs, Government Office of Industry and Trade, Indonesian Creative Youth Academy and coffee exporters
- Coffee sales able to be done anytime
- Getting the prices according to quality and price development in the market in order to minimize losses

Facilitation of human resource development
- The cooperative as a place of human resource development training
- Supervising the transfer of technology and farming skills
- That members of the cooperative can learn to solve the constraints of coffee farming development
- Getting guidance and monitoring of coffee technology implementation

Research and development of coffee farming business
- Building partnerships and business networks with various parties (government, local government offices, associations, entrepreneurs)
- Performing market research
- That members of the cooperative can get the latest information related to coffee farming technology and coffee market development

Based on Table 2, it can be said that CPCM has important roles in various activities that support the development of Java Preanger coffee agribusiness.Referring to the traditional roles of cooperatives, that some effective activities that can be done through cooperatives include collective marketing, employment sharing, credit provision, risk management, as well as dissemination of knowledge and technology. The roles of producer cooperatives, namely input procurement, providing production process facilities and financial services, as well as risk minimization. Such roles can be implemented by producer cooperatives in order to provide benefits to the production operations of the members.

At the beginning of coffee development in Pangalengan in 2003, farmers used uncertified seedlings. In 2003, farmers began planting Central Aceh seedlings (bibit Ateng) and Kartika 1 seedlings, and in 2013, they began to use Sigarar Utang varieties recommended by Coffee and Cocoa Research Center (PUSLITKOKA) for coffee development in Pangalengan.

The CPCM had partnership with the local government to assist in the procurement of quality seedlings by helping the seeding of the coffee seedlings from the government, and distributing them to the farmers in need. CPCM also developed saving and loan activities in the form of coffee saving and loan. Initially, this activity was done when the capital to pay coffee to members was limited, so that the debt was used as saving. When funds received by the members from coffee sales were surplus, they were used as loans for the members. The saving and loan activities were recorded simply in the members’ book of savings.

As for the asymmetric information in the supply chain of coffee about the quality and price of coffee, the cooperative played a role in providing clear indicators of the quality. This gives certainty of the coffee selling price to coffee farmers. The cooperative also had low cost in ensuring the quality of coffee demanded as the requirement by the markets because of the activities of assistance and monitoring of coffee farmers.
The factor of easy marketing became the basis of the farmers’ consideration to become the members of the cooperative. The cooperative received coffee sales from farmers regardless of the quantity and the time, either during harvest season or not. The price that farmers received when selling to the cooperative was fluctuating, depending on the price the cooperative had received from the buyers. In the harvest season of 2016, the price of coffee cherries ranged from IDR 7,000 to IDR 7,500 per kg, and of coffee grains from IDR 20,000 to IDR 23,000 per kg.

Local coffee marketing trend in the international market is currently responding to a dynamic market. This is demonstrated by the increasing demand for the implementation of product certification related to social and environmental standards. The implementation of social and environmental standards on the coffee economy is important with the consideration that it will bring long-term implications for the environmental quality and sustainability of the coffee economy itself. In this case, Margamulya Coffee Producers Cooperative has an important role in the process of product certification. The certification that has been running is UTZ certified and in 2018, they will try to apply Fairtrade certified. This is done by inspection, monitoring, and guidance of the application of cultivation according to the SOP conducted by the cooperative management with the officers from PT Taman Delta and union certification.

Promotion activities have also been carried out by the Margamulya cooperative, such as following several exhibitions held every year from 2012 until now by the Local Government Office of Agriculture of Bandung Regency and the Local Government Office of Industry and Trade of West Java Province. Currently the cooperative has a website of online store on blibli.com, and have already an official website, javapreasangerkopi.co.id. In addition, the cooperative also prints advertisements in the form of brochures given to buyers or parties who visit Margamulya coffee plant.

According Soverani [6], based on the assessment of the services that had been given by Margamulya Coffee Producer Cooperative, it was obtained the level of satisfaction of the cooperative’s members, which was in medium category. The quality of the service viewed from dimensions of tangibility, responsiveness, reliability, assurance, and empathy was in medium category. This indicates the need to increase the services of the cooperative for the members. Several things that can be done by the Margamulya cooperative are the increase of the cooperative capital, so that it can anticipate the risk of late payments from the less disciplined buyer.

4. Conclusion

Cooperative Producers coffee of Margamulya (CPCM) is an institution that accommodates Java Preanger coffee agribusiness activities in Pangalengan Subdistrict, by performing procurement of production facilities, as well as processing and marketing the yields. CPCM business in distribution and marketing of coffee beans is in the form of purchasing coffee cherries and grain coffee beans from the members, selling products of non-members (consignation), and custom work on coffee (maklunan). The coffee selling system conducted by CPCM is buying-processing-selling with the consideration of the limited capital of the cooperative.

CPCM played a role in the development of Java Preanger coffee farming, ranging from the procurement of production facilities, production process facilitation, product marketing, financial services, human resource development, and business risk minimization.

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