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# Coffee bean supply chain strategy: the case of trading institution and profit margin for pioneer coffee commodities in Indonesia

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**Abstract:** The role of coffee farmers is equally important to increase supply chain efficiency. The problem of this research is to propose a marketing channel strategy in the coffee bean supply chain by considering the position of farmers in the context of increasing profit margins. This study focused on Robusta coffee which is cultivated by many farmers in Jambi Province as one of the coffees producing regions in Indonesia. The research phase consists of observing supply chain practices and formulating mathematical models to calculate profit margins. There are two types of channel that has been practiced for a long time. The results of the profit margin analysis show that the best supply chain is the second channel and prove that a long supply chain is not efficient for marketing coffee beans because some activities are non-value added.

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Gunarif Taib is a Senior Lecturer in Faculty of Agriculture Technology at the Universitas Andalas. He has some experiences in small medium enterprise studies. His research interests are including business strategy and SME's development especially agricultural products.

Rika Ampuh Hadiguna is a Professor in field of Logistics System at the Department of Industrial Engineering, Faculty of Engineering, Universitas Andalas. Many researches have been conducted in supply chain management include agroindustry products, disaster and halal product.

# 1  Introduction

Coffee as an agricultural commodity and industrial product has attracted the attention of many researchers. The scope of studies that have been carried out previously includes the coffee industry and coffee supply chain. Nguyen and Sarker (2018) analysed the coffee supply chain in the framework of sustainability in Vietnam. Montero et al. (2018) focused more on the issue of sustainable coffee production on Costa Rican by identifying performance indicators. Arifin (2010) formulated global sustainability regulation for coffee supply chains in Lampung Province, Indonesia. Debelo (2017) identified the challenges of the coffee supply chain in Oromia, Ethiopia through value chain analysis starting with farmers, traders and manufacturers. Samper and Quiñones-Ruiz (2017) explained about voluntary sustainability standards (VSS) for the development of the coffee industry in the world. Palomino et al. (2017) have formulated a performance assessment model of the organic coffee supply chain in Peru. Some of these previous studies showed the importance of the study of coffee supply chains.

Coffee beans are an agricultural commodity favoured by several provinces in Indonesia. Trading of coffee beans has been done for a long time. The trading system of coffee beans has been formed by involving many parties. This business practice is often considered to be detrimental to farmers. The role of farmers as a producer of coffee beans is a big contribution compared to traders. This situation is interesting to examine with regard to profit margin and institutional trading of coffee beans. This study is a comprehensive study of a case of trading of coffee beans in one of the provinces in Indonesia. In this study, research object is focused in Jambi Province as one of the production centres of coffee beans. There has average production of Robusta coffee about 13,000 tons (Directorate General of Plantations, 2015). One of the biggest coffee producers in Jambi is Merangin Regency, especially in the Lembah Masurai Sub-district, which has a coffee farm area about 6,957 Ha. As for the number of farmers involved in the sale of coffee were about 9,680 farmers (Jambi Coffee Shop, 2012).

In the marketing of coffee beans, there are two places for coffee bean producing where the process must have followed some ways through intermediary traders so that the marketing takes long time and this case causes the marketing cost to be high. According to Harifuddin (2011), the shorter trading channel is more efficient than the

long channels of trade. This is a problem in the marketing of coffee. So it needs to be done analytically of trading that has been done in the research area. Studies conducted an analysis of institutions and channel management, and calculate the margins obtained between agents of trading.

The process of distributing Robusta coffee from coffee bean production centres to final consumers involves marketing agencies. At every marketing agency, each of them seeks an opportunity to make a profit. Regardless of the amount of profits obtained by each marketing agency, it affects the marketing margins of Robusta coffee (Desiana et al., 2017). The price of Robusta coffee beans has a different price level ranging from farmers to village merchant collectors so as to result different the profit margins. The most problem for farmers is lack of access to buyers. In addition, the lack of information, weak decisions, and cash difficulties force the farmers to sell their harvest immediately causing the seller (farmers) have less power in the market (Nasruddin, 2010). It is also a problem in the research area, lack of price information on farmers, and farmers only as price takers.

The analysis of the trading margin is used to determine the distribution of marketing margin, including the cost and the profit at each activity performed on the active trading agency. The calculation of the trading margin is based on the reduction of the selling price and the purchase price at each institutional level. The trading margin is the different price paid by the consumer to a product at the price received by the producer in producing the product. The trading margin is an indicator that is commonly used in measuring the efficiency of a marketing channel. The purposes of this research are to find out who are players involved in the marketing and to analyse the margin of trading of Robusta coffee beans.

## 2 Literature review

### 2.1 Agriculture trading system

An agricultural trading system is defined as the overall activity and effort of transfer of property and physical of agricultural goods from producer's hand to a consumer's hand. Trading activities are part of the distribution. Distribution gives the impression that the people involved in this part of the distribution are static, with only a wait from the producer to be distributed again to the consumer (Sihombing, 2010). Trading is a distribution system that is an economic activity that serves to bring or deliver goods from producers to consumers. The trading costs are made up of the merchant functions. Inefficient marketing system will cause the marketing cost to be relatively large. High marketing costs will be charged to producers by pressing price levels and raising prices on consumers, resulting in the disadvantage of producers and consumers (Ginting, 2006).

According to Kartasapoetra (2002), the position of farmers in the trading channel is weak because of fewer offerings, farmers products are homogeneous mass products, the products are often not durable, the transportation is difficult, the farmers are difficult to get information about the price and the influence of credit needs on trading positions, in this case the farmer's need for cash is the most important factor in the farmer's market policy. In the farmers trading activities do not sell their crops directly to the end consumer due to limited resources, the marginal profit is smaller. In the process of trading arrangements involved various economic actors to carry out the functions of

trading. These marketing functions are productive activities (increasing the value of form, place, time and ownership), while the execution of its functions is carried out by a scale of companies or individuals called as marketing institutions (Dahl and Hamond, 1987). Some agencies are involved in the management of a good or service from producers, intermediary institutions to consumers, due to the distance between producers to consumers, so that the function of intermediary institutions is expected to move the goods or services from producers to consumers and liaison information about a good or service (Limbong and Sitorus, 1987).

Manufacturers usually do not directly sell goods to the end consumer. Among the producers and consumers, there is a distribution channel that is a group of people who become intermediaries of marketing and perform various functions, such as intermediary traders, wholesalers, retailers and others. Distribution includes all activities involved in the physical transfer of goods from producers to consumers. Marketing institutions are a business entity or individual who performs marketing activities to end consumers and have connections with business entities or other individuals. Its function is to do marketing to meet the needs of consumers to the maximum. In the institute, it can be known that several institutions whose positions play an important role in the process of trading, including collector traders, wholesalers, and brokers. These marketing institutions are actors in decision-making in agricultural product trading systems.

### 2.2   Marketing system

The marketing channel is a route taken by agricultural products starting from farm gates or producer farmers to end consumers. In general, marketing channels consist of marketing institutions and the actors. According to Andajani (2012), there are five channels of consumer goods marketing include: farmer to consumer, manufacturer to retailer to consumer, manufacturer to wholesaler to retailer to consumer, manufacturer to agent to retailer to consumer and manufacturer to agent to wholesaler to retailer to consumer.

Marketing margins and profits can be used to determine the distribution of the costs of each marketing activity. Marketing margin is the price difference at every level of the institution within the marketing system. The price difference paid by the consumer and the amount received by the producer of the traded agricultural product, the cost as a logical consequence of the implementation of the trading functions. The cost of this trading becomes an additional cost of goods that must be borne by consumers. The trade expense component includes the type of expenditure paid by each middleman and the trading institutions directly and indirectly in the process of moving goods, as well as the profit margin taken by the middleman over its capital services (Gultom, 1996).

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## 3   Research method

This research was conducted in two villages because it has the biggest coffee-producing in addition it has a potential area toward the production of the large coffee plantations. Types of data used in this study are primary and secondary data. Primary data in the form of qualitative and quantitative data are done through in-depth study of field observation and documentation. Secondary data is data obtained from library studies, internet searches, journals and other relevant supporting documents. This study has limitations in

analysing the data, is only doing analysis of institutions and coffee trading system channel in the research area.

The analysis of the coffee bean trading agency is seen with the variables of coordination between farmer institutions and the institutions involved, carried out by farmer-to-trader-tracing method. The study of the pattern of coordination in the marketing of coffee beans is also analysed through the profitability of marketing among each marketing agency by observing the variation of marketing margins and marketing cost variables as to calculate the marketing margin, the following formula is below (Ramizan et al., 2014):

$$Mi = Pri - Pfi \qquad (1)$$

Description:

Mi    marketing margin on every marketing institution

Pri    price received by the end marketing agency

Pfi    price received by the previous institution.

To know the amount of profit received by the farmer, producer from the price paid by the final consumer can be determined by the following formula (Azzaino, 1982 in Saputra, 2017) that called as the advantages of commerce institutions:

$$ACI = acceptably - expenses\ incurred \qquad (2)$$

## 4    Result and discussion

### 4.1    Institutional trading

In the institutional approach, it can be known several institutions whose positions play an important role in the process of trading, including; wholesalers, merchant collectors, wholesalers, and brokers. These marketing institutions are the actors in decision-making at an agricultural product on trading systems. The trading coffee in Lembah Masurai involves several trading agencies that are related to each other. Based on the research, the coffee trading institutions in Lembah Masurai consist of farmers, village-level traders, large collectors (bulk traders), exporters (industry), and coffee bean processing industries.

The trading coffee started from the harvest of farmers' coffee bean into dry coffee beans. Farmers as the coffee producers whereas the result of processing of coffee beans is purchased by village collectors which are then sold to wholesalers, from large traders to exporters. In the research result, there are two villages as the marketing pattern of coffee beans and there has two ways of trading. The first channel namely farmers, collectors, wholesalers and exporters. Then, the second channel namely farmers – collectors – seed processing industry. The second channel involves companies in Lampung and Jakarta. Summary of description can be seen in Figure 1.

The trading institution in the research area is generally similar to the institution in the coffee marketing research that Wahyudi (2017) conducted that there are two marketing channels of coffee in research area, that is the first channel represent farmers who sell their products to the village collectors then the village collector sells back to the sub-district traders (wholesalers), the sub-district traders sell to exporters. The second

channel represent farmers sell their products to sub-district traders (wholesalers) and then traders resell to exporters. The most efficient marketing channel that is the second channel is the farmers sell their products to the sub-district traders (wholesalers) and wholesalers sell their products to exporters. In general, coffee marketing institutions on the market are farmers as producers, collecting traders, wholesalers, processing industries and exporters.

**Figure 1**   The scheme of coffee trading in Lembah Masurai Sub-district
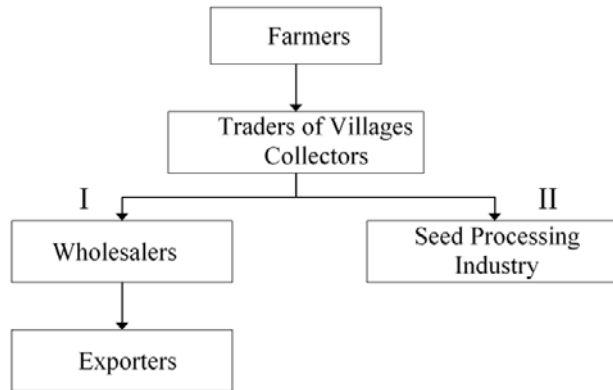


## 4.2   *Profit margin analysis*

Margin trading is the different price paid by the consumer to a product at a price received by the producer in producing the product. The analysis of the trading margin is used to determine the distribution of marketing, including the cost and the profit at each activity performed on the active trading agency. The calculation of the trading margin is based on the reduction of the selling price and the purchase price at each institutional level.

The trading cost is the overall costs incurred in the process of movement of goods from producers to the consumer. The merchant cost on the merchant represents the amount of the trading per kilograms (kg) incurred by the merchant, either the cost paid per kg or the calculated cost per kg. The cost paid in the form of the purchase or sale per purchase or the sale cost divided by the amount of goods purchased or sold. The cost paid by traders includes the cost of packing coffee beans with sacks, transportation costs, including the cost of loading, freight and unloading costs. Result can be seen in following tables.

**Table 1**      The production costs and the advantages of coffee farmers

| No. | Description | The first channel (IDR/kg) | The second channel (IDR/kg) |
|-----|-------------|----------------------------|-----------------------------|
| 1 | Purchase cost | 992.71 | 992.71 |
| 2 | Trading cost | 23,000 | 23,000 |
| 3 | Profit | 22,007.29 | 22,007.29 |

Table 1 shows that the total production cost of average coffee farmers in the study area is IDR 992.71 per kg on the first channel and the second channel. The production costs incurred by farmers are on average the same. The average selling price of coffee beans from farmers in village collectors is IDR 23,000 per kg. Farmers get this price information through the village collectors. The average profit of coffee farmers in the research area in both channels is IDR 22,007.29 per kg.

Hereafter, Table 2 reveals that the purchasing price of the village collectors from coffee farmers is IDR 23,000 per kg where both channels are equal to the total cost of trading, which is IDR 150 per kg on the first channel with the selling price of the village collectors, traders to big traders about IDR 25,000 per kg of profit earned by village traders is IDR 1,850 per kg. Business activities on the second channel are attested the brokers involvement. Village merchants push coffee beans to the coffee bean processing industry through helping brokers with price level about IDR 26,500 per kg and total cost about IDR 300 per kg and profit of village collecting traders is IDR 3,200 per kg.

**Table 2**     The cost of trading and the advantages of village collector

| No. | Description | The first channel (IDR/kg) | The second channel (IDR/kg) |
|---|---|---|---|
| 1 | Purchase cost | 23,000 | 23,000 |
| 2 | Trading cost | 150 | 300 |
| 3 | Selling cost | 25,000 | 26,500 |
| 4 | Profit | 1,850 | 3,200 |

Table 3 describes the purchase price of coffee from the village collectors is IDR 25,000 per kg on the first channel with a total cost of merchant trading IDR 728.33 per kg. Thus, the acceptance of wholesalers of the selling price, it is known that the highest profit is the first channel about IDR 4,271.67 per kg. In the second channel, the marketing coffee beans from village collectors assisted by brokers to sell to the coffee bean processing industry at a price of IDR 27,000 per kg with the purchase price of coffee from the village collectors of IDR 26,500 per kg. The profit received by brokers is IDR 500 per kg. In the first channel, the selling price of big traders is higher to the exporter (industry) of coffee beans is 30,000 per kg due to large traders meet the demand of coffee beans in accordance with the quality set by the industry.

**Table 3**     The cost of trading and the benefit of large-scaled merchants

| No. | Description | The first channel (IDR/kg) | The second channel (IDR/kg) |
|---|---|---|---|
| 1 | Purchase cost | 25,000 | 26,500 |
| 2 | Trading cost | 728.33 | - |
| 3 | Selling cost | 30,000 | 27,000 |
| 4 | Profit | 4,271.67 | 500 |

The analysis of coffee trading margin at farm level shows that farmers get the total net sales of IDR 22,007.29 per kg on both ways is similar. Table 4 reveals the smallest margin obtained from the village collecting traders on the first channel is IDR 2,000 per kg. This is due to the merchant collectors having received the benchmark price determined by the wholesalers. In Table 4, it shows that the largest margin obtained

by wholesalers on the first channel is IDR 5,000 per kg the amount of margin at the level of wholesalers is due to the high profits obtained, that is IDR 4,271.67 per kg.

**Table 4**       The margin of coffee trading

|  | The first channel IDR/kg | The second channel IDR/kg |
|---|---|---|
| *Farmers* | | |
| *Selling cost* | *23,000* | *23,000* |
| *Trading cost* | | |
| Fertiliser | 7.74 | 7.74,- |
| Sack | 36.00 | 36.00,- |
| Maintenance | 17.34 | 17.34,- |
| Harvest | 52.03 | 52.03,- |
| Transportation | 299.69 | 299.69,- |
| Processing before drying | 79.91 | 79.91,- |
| Treatment after drying | 500 | 500.00,- |
| *Total* | *992.71* | *992.71,-* |
| *Net total* | *22,007.29* | *22,007.29,-* |
| *Farmer collector* | | |
| *Selling cost* | *25,000* | *26,500* |
| *Trading cost* | | |
| Transportation and transportation total cost | 150 *150* | 300 *300* |
| Margin | 2,000 | 3,500 |
| Buy from farmers | 23,000 | 23,000 |
| Benefits of collecting merchants | 1,850 | 3,200 |
| *Pander* | | |
| *Selling cost* | *30,000* | *27,000* |
| Commerce fees | | |
| Transportation and transportation depreciation tools | 550 178.33 | - |
| Total cost | *728.33* | - |
| Margin | *5,000* | *500* |
| Buy from merchant collectors | 25,000 | 26.500 |
| Advantages of wholesalers | 4,271.67 | 500 |
| Total | 1,871.04 | 1,292.71 |
| Margin | 7,000 | 4,000 |
| Marketing costs | 6,121.27 | 3,700 |

On the second channel, the largest margin obtained by village collectors is IDR 3,500 per kg the amount of margin obtained by the village collectors is also caused by the high profit obtained IDR 3,200 per kg other than that, traders can sell directly to the consumers of the coffee bean processing industry with the help of brokers, where the

brokers gain a profit of IDR 500 per kg and margins of IDR 500 per kg. The selling price received by the village collecting traders from the coffee bean processing industry is higher at IDR 26,500 per kg compared to selling to wholesalers. The spread of margin, cost and profit of each marketing agency is less evenly distributed.

Among the two channels in this study, it can be seen that the second channel is more effective. On the second channel, there are three players of trading including farmers, collectors and processing industries. The second channel is more effective because the average number of margins on the second channel is smaller than on the first channel with the value on the first channel about IDR 7,000 per kg and on the second channel about IDR 4,000 per kg. The more actors involved in a product marketing cause the greater the margin after each actor takes advantage of every sale that also incurs costs in the process.

## 5    Conclusions

This research has found the type of coffee trade that has been practiced for a long time. This trade channel model is defined as an alternative in determining the best supply chain system. Alternative selection criteria values of the largest profit margin. The first channel involves farmers, village collectors, wholesalers and exporters (industry), while the second channel engage farmers, village collectors, panders and coffee bean processing industries. Both types have been analysed to determine the best supply chain system based on the value of the largest profit margin. Profit margin analysis results have shown that the best supply chain involves actors including farmers, village trade collectors and coffee bean processing industries. The study results have proven that a long supply chain is inefficient because some activities are non-value added.

This study is intended to study two types of marketing channels from the coffee bean supply chain. The results of the analysis have shown that both types of channels have advantages and disadvantages. The first channel results in higher coffee final prices because large traders' process wet coffee according to exporters' quality standards. The main disadvantage of this channel is the longer value chain so that production costs increase. Transportation costs contribute significantly to increasing supply chain costs. In contrast, the second channel is the most efficient type due to lower production costs.

The main challenges faced by farmers are accurate information regarding demand and prices. The establishment of this supply chain system is intended to ensure information flow is more effective from downstream to upstream. The role of information technology is important for the creation of effective information flow. The construction of a coffee supply chain information system is a recommendation for further research. The prospect and potential of coffee should be sustained by an efficient system to protect all parties involved in the marketing of coffee, therefore it is suggested that further research is needed to enable the management of integrated coffee marketing so that all parties can benefit.

## References

Arifin, B. (2010) 'Global sustainability regulation and coffee supply chains in Lampung Province, Indonesia', *Asian Journal of Agriculture and Development*, Vol. 7, No. 2, pp.67–89.

Dahl, D.C. and Hammond J.W. (1987) *Market and Price Analysis*, The Agricultural Industries, Mcgraw-Hill Book Company, Inc., New York.

Debelo, B.K. (2017) 'Constraints and opportunities in the coffee supply chain: value chain analysis from coffee farmers to exporters – case of some selected districts of Ilu Aba Bor Administrative Zone, Oromia, Ethiopia', *International Journal of Scientific and Research Publications*, Vol. 7, No. 8, pp.626–632.

Desiana, C., Rochdiani, D. and Pardani, C. (2017) 'Analysis of marketing channels Robusta coffee beans (study case in Kalijaya Village Banjarsari Sub-district Ciamis Regency)', *Journal Agroinfo Galuh*, Vol. 3, No. 2, pp.162–173.

Directorate General of Plantations (2015) *Plantation Statistics Indonesia Coffee Commodities*, Directorate General of Plantation and Ministry of Agriculture.

Ginting, P. (2006) *Marketing of Agricultural Products*, North Sumatera University Press, Medan.

Gultom, H.L.T. (1996) *The Agricultural Trading System*, North Sumatera University Press, Medan.

Harifuddin, A.B. (2011) 'Margin Analysis and Marketing Efficiency of Seaweed in Mandalle Village, Mandalle Sub-district, Pangkep Regency', *Journal of Agribusiness*, Vol. 10, No. 3, pp.39–49.

Jambi Coffee Shops (2012) [online] http://kopi-jambi.blogspot.co.id/2013/12/Komoditas-Kopi-Merangin-Jambi-2012-2013.html (accessed 13 November 2017).

Kartasapoetra, G. (2002) *Marketing of Agricultural and Industrial Products*, Cipta Rineka, Jakarta.

Limbong, H. and Sitorus, P. (1987) *Introduction to Agricultural Marketing*, Bogor Press, Bogor.

Montero, M., Schmalenberg, A.C., Olman Quirós, O. and Doluschitz, R. (2018) 'Identification of supply chain performance indicators: case study of Costa Rican coffee production', *Universal Journal of Industrial and Business Management*, Vol. 6, No. 1, pp.1–10.

Mubyarto, M. (1989) *Introduction to Agricultural Economics*, LP3ES, Jakarta.

Nasruddin, W. (2010) *The Agricultural Trading System in: Meaning, Scope, Role, Function, and Study Approach and Product Characteristics and Agricultural Production*, pp.1–49, Open University, South Tangerang.

Nguyen, G.N.T. and Sarker, T. (2018) 'Sustainable coffee supply chain management: a case study in Buon Me Thuot City, Daklak, Vietnam', *Journal of Corporate Social Responsibility*, Vol. 3, No. 1, pp.1–17.

Palomino, E.R., Meza, S.H., Montes, D.R., Raffo, F.S. and Lo, W.S. (2017) 'Organic coffee supply chain management in the San Martin Region of Peru', *International Journal of Innovation, Management and Technology*, Vol. 8, No. 1, pp.9–16.

Ramizan, D., Yulinda, E. and Bathara, L. (2014) 'Institutional analysis of marketing and the margin of fishing catch result at Reed China Village, Siak Hulu Sub-district, Kampar Regency, Riau Province', *Journal of Online Mahasiswa*, Vol. 1, No. 1, pp.1–5.

Samper, L.F. and Quiñones-Ruiz, X.F. (2017) 'Towards a balanced sustainability vision for the coffee industry', *Resources*, Vol. 6, No. 2, pp.1–28.

Saputra, D. (2017) *Analysis of Corn Trading US Animal Feed at Nagari Tigo Nagari, Malampah Sub-District, West Pasaman Regency*, Unpublished Master thesis, Andalas University, West Sumatera.

Sihombing, L. (2010) *The Agricultural Trading System*, North Sumatera University Press, Medan [online] http://usupress.usu.ac.id (accessed 13 November 2017).

Wahyudi, T.S. (2017) *Robusta Coffee Marketing Analysis in the great Appeal of Sub-district, Oku South Regency*, Unpublished Master thesis, Bogor Agricultural University, Bogor.