

## Analysis of Robusta Coffee Supply Chain Management in Tutur District, Pasuruan Regency

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### Abstract

*Tudur District is the center of Robusta coffee production in Pasuruan Regency. Robusta coffee supply chain management activities in Tutur District are generally very interesting for in-depth exploration and study. Robusta coffee supply chain management activities by robusta coffee farmer groups have various paths. In addition, it is suspected that there are variations in the production scale of Robusta coffee commodities, so that they have different marketing channels according to the demand and limited supply of Robusta coffee. In this study, the population selected were 7 robusta coffee farmer groups and the sample used was 35 coffee farmers. This research uses purposive sampling method. Robusta coffee supply chain performance is measured using the Food Supply Chain Network approach. The analytical method used is marketing margin and farmer's share. Based on the research results, it is known that the condition of the robusta coffee supply chain runs smoothly and the robusta coffee marketing channel shows that the marketing margin with low value is in marketing channel 1 but has a high level of farmer's share value.*

### Keywords

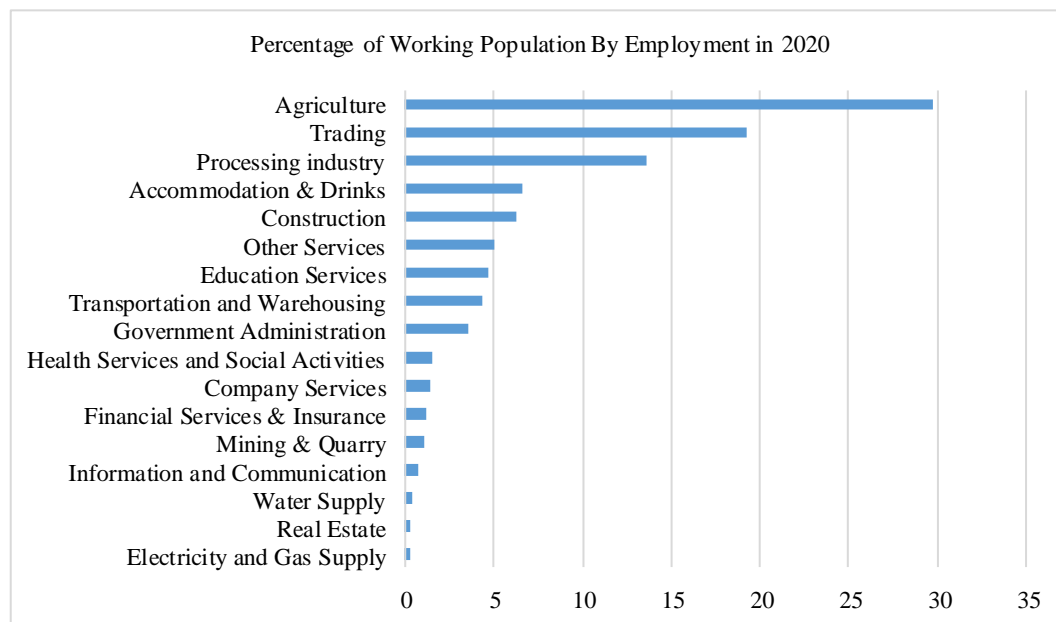
robusta coffee supply chain;  
food supply chain network;  
marketing margin; farmer's  
share



## I. Introduction

As an agricultural country, Indonesia has the potential for a large-scale agricultural sector and can contribute to development and the national economy. This large-scale agricultural sector is a source of livelihood for the people of Indonesia. The agricultural sector consists of 5 (five) sub-sectors, namely food crops (crops), plantation crops (plantation), livestock (farm), fisheries (fishery) and forestry (forestry). With this, of course, there is great potential in absorbing human resources or labor in the agricultural sector in Indonesia (Yani & Nur, 2020).

The Central Bureau of Statistics states that the number of working people per 2020 is 128.45 million people. The highest percentage of the working population according to employment in 2020 is in the agricultural sector with 38.23 million people or 29.76%. The workers in the trade sector were 19.23% and the manufacturing industry was 13.61%. In the accommodation and food and beverage sector, 6.65%, the construction sector at 6.28% and other services at 4.99%. In education services the percentage is 4.69%, in the transportation and warehousing sector it is 4.35%. In the field of government administration, the percentage is 3.56%, followed by health services and 1.56% social activities. In the corporate sector the value is 1.4% and financial services and insurance is 1.21%. The next sector in mining and quarrying is 1.05%, information and communication sector 0.73%. In the water supply sector, the value is 0.38%, followed by the real estate sector at 0.31% and the lowest value is in the electricity and gas procurement sector, only 0.24% (BPS, 2020).



Source : (BPS, 2020)

**Figure 1.** Percentage of Working Population by Employment in 2020

The agricultural sector which plays a major role in Indonesia is the plantation sub-sector. The potential of the agriculture sub-sector of plantations to serve as a mainstay of exports in the future, several prerequisites are needed, namely in the form of improvement and refinement of the business climate as well as the market structure of plantation commodities from the upstream sector to the downstream sector. Production activities in the upstream sector, trade patterns, and the distribution process of agricultural commodities in the plantation sub-sector domestically still often experience obstacles and distortions or deviations in prices, it can be said to be impossible if export performance/capability will be said to be better/increase (Directorate General of Plantations, 2020).

The agricultural sector in a broad sense (agriculture, livestock, hunting and agricultural services sub-sectors; forestry and logging; and fisheries) is one of the important factors as a source of income for most people in Indonesia.

**Table 1.** Gross Domestic Product at Current Prices

No.	Business field	Year		
		2014	2015	2016
	<b>Agriculture in the broadest sense</b>	<b>1,409,655,70</b>	<b>1,555,746.9</b>	<b>1,668,997.8</b>
1	Agriculture, Livestock, Hunting and Agricultural Services:	1,089,549,70	1,183,970.8	1,266,361.0
	a. Crops	343,252.30	397,408.6	424,898.4
	b. Horticultural Plants	160,568,60	174.453,7	186.908.5
	c. Plantation crops	398,260,70	405,291.5	429,682.0
	d. farm	167,008.00	184,151.5	200.611.3
	e. Agricultural and Hunting Services	20,460,10	22,665.5	24,260.8

2	Forestry and Timber	74,618.00	82.859.5	85545.0
	Mining			
3	Fishery	245,488.00	288,916.6	317,091.8
<b>National GDP</b>		<b>10,569,705.3</b>	<b>11,531,716.9</b>	<b>12,406,809.8</b>

Source : (Ministry of Agriculture, 2018)

The value of gross domestic product in the agricultural sector in a broad sense for the period 2014 – 2016 issued by the Central Statistics Agency showed an increasing trend from 2014, 2015 and 2016. Agricultural income in the plantation sub-sector reached a value of 429 trillion rupiah, this certainly exceeded /exceeding the share of the crude oil and natural gas (oil and gas) sector, whose value only reached 365 trillion rupiah (Directorate General of Plantations, 2017).

Agriculture in the plantation sub-sector is currently a form of capital-intensive and labor-intensive business that is intensively managed and economically oriented towards marketing in local and international markets. In addition, the pursuit of maximum profit value. Coffee commodity is a plantation commodity that has great economic value and has a significant function for the country of Indonesia, in 2019 the area of coffee plantations in Indonesia reached 1,215,539 hectares with a total production of 731,614 tons of coffee (BPS, 2019).

Indonesia is the 4th (fourth) largest coffee producer in the world, with an average role of 6.07% of the total coffee production in the world's production scale.

**Table 2.** World Coffee Producing Countries in 2018

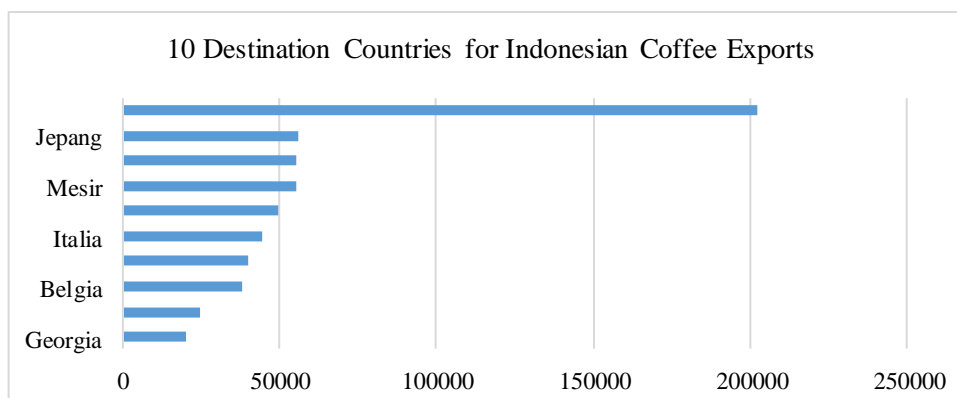
No.	Country	Production (in thousands of bags @60kg)	Percentage (%)
1.	Brazil	61,700	36.71
2.	Vietnamese	29,500	17.55
3.	Colombia	14,200	8.45
4.	Indonesia	10,200	6.07
5.	Ethiopia	7,500	4.46
6.	Other countries	44,993	26.77
<b>Amount</b>		<b>168,093</b>	<b>100,000</b>

Source : (International Coffee Organization, 2019)

Brazil managed to occupy the 1st (first) position with an average role of 36.71%, which was then followed by Vietnam with an average role of 17.55% and Colombia with an average role of 8.45% (International Coffee Organization, 2019).

Coffee commodity is one of the plantation products that has a very important role in economic activities in Indonesia. The various roles of coffee for Indonesia are as a source of income for farmers, as a source of foreign exchange, triggers / drivers of development in mountainous and highland areas as well as improving the image in these areas (Yuliasmara, 2018).

Indonesia is included as the 5th (five) big country with the largest coffee producer in the world. Coffee from the country has also been widely known by coffee connoisseurs from all over the world. The Central Statistics Agency (BPS) noted that in 2020 the value of Indonesian coffee exports reached US\$ 809.2 million. This value decreased 7.8% from the previous year which reached US\$ 872 million.



Source : (BPS, 2020)

**Figure 2.** Destination Countries for Indonesian Coffee Exports

The United States is the main destination for Indonesian coffee exports with a value of US\$ 202 million or 25% of total coffee exports in 2020. For the last five years, the United States has also become the destination country with the largest coffee export value for Indonesia. Japan is ranked second as a destination for Indonesian coffee exports with a value of US\$ 56 million. Followed by Malaysia with a coffee export value of US\$ 55.4 million. The next largest destination for Indonesian coffee exports is Egypt with a value of US\$ 55.02 million. Germany followed with a coffee export value of US\$ 49.5 million. Furthermore, there is Italy in the sixth rank of Indonesia's coffee export destination with a value of US\$ 44 million. The next position is occupied by the UK with an export value of US \$ 39 million (BPS, 2021).

Coffee production in 2017 amounted to 1,266.65 tons, an increase of 6.98% when compared to the target of the National Medium Term Development Plan (RPJMD) in the 2013 - 2018 period of 1,184 tons. The reason is that there is a factor of concern from the Pasuruan Regency Government in providing agricultural cultivation technology, namely by using the effective use of production facilities to meet the needs of coffee plants such as superior seeds, fertilizers and agricultural medicines (Pasuruan Regency Government, 2018).

The area of coffee plantations is based on the location of the sub-district in Pasuruan Regency (Ha) in 2018 and 2019.

**Table 3.** Coffee Plantation Area at the District level in Pasuruan Regency (Ha) 2018 – 2019

No.	Districts	2018	2019
1	Puspo	1,283.24	1,414.60
2	speak	1,244.52	1,238.04
3	Purwodadi	894.4	817.68
4	Porcupine	270.15	438.75
5	Prigen	317.96	422.12
6	Tosari	240.15	368.65
7	Pasrepan	236.9	242.74
8	Purwosari	76.69	117.95
<b>TOTAL</b>		<b>4,564.01</b>	<b>5,060.53</b>

Source : (Directorate General of Plantations, 2020)

The area of coffee plantations in Pasuruan Regency in 2018 - 2019 in Tukur District is the second largest after Puspo District. The area of coffee plantations in Tukur District in 2018 was 1,244.52 hectares, while in 2019 it decreased to 1,238.04 hectares. The decline in coffee plantation area is caused by land conversion activities carried out by land owners (Directorate General of Plantations, 2020).

The Pasuruan Regency Government with competent institutions must emerge to be able to answer the needs of Robusta coffee farmers. In an effort to increase added value, robusta coffee farmers must process it into ground coffee. Robusta coffee which has become ose/rice coffee after processing by robusta coffee farmers usually begins with purchases by wholesalers to be further distributed to small traders, business actors, industry players and exporters to get higher added value. Processing of ground coffee is also carried out by involving coffee processing units in Pasuruan District, Pasuruan Regency.

Based on this background, it can be seen that the potential possessed by Tukur District, Pasuruan Regency is in the Robusta coffee commodity, besides that the coffee supply chain management system in Tukur District, Pasuruan Regency is still rarely studied in general. Therefore, the author is interested and wants to do this form of research. This study aims to identify and describe the flow pattern of the robusta coffee supply chain including product flow, financial flow, and information flow. In addition, this research is also to analyze the robusta coffee supply chain through the Food Supply Chain Network (FSCN) theoretical approach, measure the performance of the robusta coffee supply chain using the marketing margin method analysis tool, and calculate the farmer's share.

## II. Review of Literature

In general, the meaning of the word "analysis" is an activity that includes a number of activities such as; describe, distinguish, sort things to then be classified and regrouped according to certain criteria and look for the relationship and then proceed with the meaning of the meaning. Another definition of analysis is an activity in investigating an event to find out the real situation. Analysis can also be interpreted as a breakdown of a subject from its various parts and a study of the parts themselves, as well as the relationship between the parts to obtain the right understanding and understanding of the meaning as a whole / as a whole (Prastowo, 2011).

The management function is a form of activity carried out by managers in the company as an effort / effort to realize the goals to be achieved by an organization in the company. Management functions are not only carried out by top-level managers such as organizational leaders in companies, but are also carried out by middle managers and managers at lower levels (Karyoto, 2016).

The supply chain is a physical network, namely all actors or companies that play a role in supplying raw materials, producing goods, to sending them to consumers/end users (Fahmy Radhi, 2020).

*Supply Chain Management* namely a network of interconnected organizations that need each other and also work together to regulate, monitor, and improve the flow of commodities and information from the point of supplier to the end user (Riyadi et al., 2021).

Marketing is a process of planning and execution, starting from the conception stage, pricing, promotion, to the distribution of goods, ideas and services, to make exchanges that satisfy the individual and his institutions (Dianto in Asmuni *et al*, 2020).

Marketing margin is the calculation of the difference in the price paid by the final consumer to the price received by farmers as producers. Marketing margins can be

reviewed from two sides, the first is the price point of view and the second is marketing costs. In marketing analysis activities, they often use the concept of marketing margin from a price point of view (Sudiyono, 2004).

*Farmer's share* namely the percentage value of the price received by the farmers compared to the selling price at retailers. Farmer's share in a marketing activity can be used as a basis or benchmark for marketing efficiency. The higher the percentage value of the farmer's share received by the farmers, the more efficient the marketing activities carried out and vice versa, if the lower the farmer's share percentage value received by the farmers, the lower the level of marketing efficiency (Rosmawati, 2011).

*Farmer's share* is the second indicator of marketing efficiency after marketing margin. Farmer's share measures how big the proportion received by robusta coffee farmers to the price of robusta coffee at the final consumer level (Arising Rasoki, 2021).

Coffee belongs to the genus *Coffea* in the family Rubiaceae. The *Coffea* genus includes almost 70 (seventy) species, but only 2 (two) species are grown in large-scale coffee plantations worldwide, namely the Arabica coffee (*Coffea arabica*) and the robusta coffee (*Coffea canephora* var. *Robusta*) (Rahardjo, 2017).

Robusta coffee (*Coffea canephora* piere ex A. Frohner) is a tree-shaped cultivated plant belonging to the Rubiaceae family and the *Coffea* genus. The leaves are oval in shape with a slightly tapered tip. The leaves grow opposite the trunk, branches, and branches. The upper surface of the leaf is usually shiny, flat edge, base blunt, between 5-15 cm long, about 4.0-6.5 cm wide, pinnate bone, and has a stalk 0.5-1.0 cm long, which is brown in color greenish (Najiyati, Sri, 2006).

### III. Research Method

#### 3.1 Location, Time and Type of Research Data

The location of this research/research was conducted in Tukur District, Pasuruan Regency, East Java Province. Execution time this research/research activity was carried out for 2 (two) months, namely on January 22 – February 22, 2022. The type of data in this research/research consisted of 2 (two) types of data, including; First, the primary data obtained by means of interviews, observations and questionnaires to the respondents. Second, secondary data obtained from reading articles, books, national and international scientific journals, research on previous theses and/or theses, reports from the Central Statistics Agency, reports from the Ministry of Agriculture, reports from the Directorate General of Plantations, reports from the Plantation Service at the District level and other sources relevant to the research.

#### 3.2 Method of Collecting Data

This research uses the method used to obtain data-data in accordance with the objectives of the research/research compiled by the researcher. The methods used include surveys by conducting direct observations in the field and also providing questions through questionnaires with interview media to the respondents. The respondents in this study amounted to 54 people who were selected by purposive sampling consisting of the heads of farmer groups, farmers, collectors, small traders, coffee business actors and coffee industry players involved in the robusta coffee supply chain in Tukur District, Pasuruan Regency. Determination of respondents who are actors in the robusta coffee supply chain (collectors and industry players) is carried out using the snowball sampling method by tracing the flow of the robusta coffee supply chain.



**Table 4.** Details of Research Respondents

<b>No.</b>	<b>Respondent Type</b>	<b>Number of people)</b>
1.	Farmer Group Leader	7
2.	Farmer	35
3.	Collector Traders	7
4.	Small Merchant	2
5.	Coffee Business	2
6.	Coffee Industry Players	1

Source: Primary Data Analysis, 2022

### **3.3 Data Processing and Analysis Method**

In this research, 2 (two) analytical methods are used, namely descriptive qualitative analysis and descriptive quantitative analysis. In descriptive qualitative analysis, it is used to analyze the robusta coffee supply chain that is in accordance with the framework scheme of the stages of the approach *Food Supply Chain Network* (FSCN). While quantitative descriptive analysis is used to analyze the performance measurement of the robusta coffee supply chain. Robusta coffee supply chain performance measurement uses a marketing efficiency approach by analyzing marketing margins and farmer's share.

## **IV. Results and Discussion**

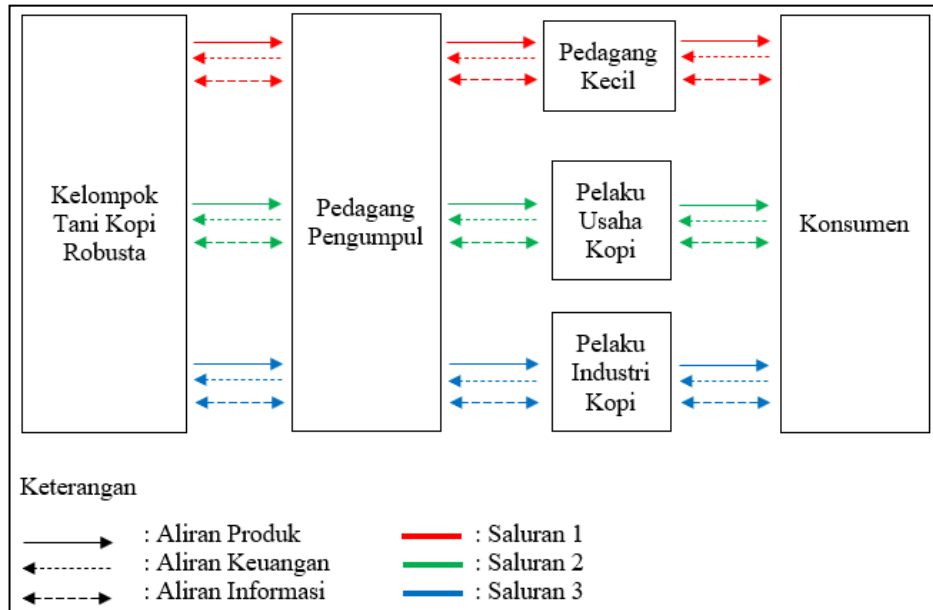
### **4.1 Robusta Coffee Supply Chain in Tukur District**

#### **a. Supply Chain Goals**

Target Robusta coffee commodity in Tukur District is currently still dominated by local and domestic markets. The target market from the sale of Robusta coffee to meet the needs of traders and consumers outside the region (Tukur District) is still relatively small. This is a special concern from the agricultural office of Tukur District so that it can encourage and strive to help Robusta coffee farmer groups to be able to penetrate the national market target.

#### **b. Structure of Supply Chain Relationships (Food Supply Chain Network)**

The structure of the robusta coffee supply chain relationship in Tukur District is analyzed through the members involved in supply chain activities and the roles of each member, in addition to the existence of elements in the supply chain such as; products, markets, actors, as well as the situation in competition. Supply chain members are actors involved in product flow, financial flow, and information flow. Members of this supply chain start from the producers, collectors, to the final consumer.



Source: Primary Data Analysis, 2022

**Figure 3.** Robusta Coffee Supply Chain Relationship Structure in Tukur District

#### 4.2 Robusta Coffee Farmers Group (Producer)

The Robusta coffee farmer group is the producer, besides that it is also the first supply chain member in the Robusta coffee supply chain in Tukur District. Robusta coffee farmer groups have a very important role, due to their function as producers, namely determining the quantity, quality and availability of robusta coffee supplies.

#### 4.3 Coffee Collecting Merchant Robusta

Robusta coffee collector traders are members of the 2nd (second) supply chain, where their function is as a liaison between robusta coffee farmer groups and the next supply chain members. Collecting traders will visit robusta coffee farmer groups to see the harvest, and negotiate prices until they meet/reach an agreement on the selling price of robusta coffee. Robusta coffee purchased by collectors is wet logs, namely coffee cherries that are harvested directly from the garden which have a moisture content of between 60-65% and are ready to be processed at the post-harvest stage. Collecting traders also make purchases in the form of dry logs of robusta coffee, namely coffee cherries from the results after harvest which are directly dried by direct drying (natural post-harvest process) until they have a moisture content of around 12-13% and are ready to be processed for post-harvest activities. In addition, there are also traders who buy robusta coffee in the form of green beans for the needs of coffee businesses such as cafes and purchase robusta coffee in powder form, which is robusta coffee which is ready to serve and can be brewed directly. After the collecting traders and farmer groups reach an agreement, then the payment is made directly in cash at the same time for distribution to storage warehouses and sales will be made to the next member of the coffee supply chain. In addition, there are also traders who buy robusta coffee in the form of green beans for the needs of coffee businesses such as cafes and purchase robusta coffee in powder form, which is robusta coffee which is ready to serve and can be brewed directly. After the collecting traders and farmer groups reach an agreement, then the payment is made directly in cash at the same time for distribution to storage warehouses and sales will be made to the next member of the coffee supply chain. In addition, there are also traders who buy robusta coffee in the form of green beans for the needs of coffee businesses such as cafes and purchase robusta coffee in



powder form, which is robusta coffee which is ready to serve and can be brewed directly. After the collecting traders and farmer groups reach an agreement, then the payment is made directly in cash at the same time for distribution to storage warehouses and sales will be made to the next member of the coffee supply chain.

#### **4.4 Robusta Coffee Small Trader**

Small traders are members of the 3rd (third) supply chain, in the first channel of the robusta coffee supply chain relationship in Tukur District. Small traders purchase robusta coffee in the form of ready-to-eat powder through collectors and then resell it to the local target market, for example; markets, shops, stalls.

#### **4.5 Robusta Coffee Businesses**

The coffee business actor is a member of the 3rd (third) supply chain, in the second channel of the robusta coffee supply chain relationship in Tukur District. Robusta coffee business actors purchase robusta coffee in the form of roasted beans and ground coffee. Robusta coffee business actors buy through traders and then resell it through cafes in various cities, such as; Surabaya, Sidoarjo, Malang and Pasuruan. Robusta coffee business actors usually carry out the process of processing roasted coffee beans into coffee powder using a grinder, which is a tool that can break roasted coffee beans into smaller pieces by grinding them into powder form that is ready to be served into coffee drinks according to the variant of consumer demand.

#### **4.6 Robusta Coffee Industry Players**

The coffee industry players are members of the 3rd (third) supply chain, in the third channel of the robusta coffee supply chain relationship in Tukur District. Robusta coffee industry players purchase robusta coffee in the form of wet logs, dry logs and powder through traders who then process it into ready-to-eat robusta coffee products. Robusta coffee industry players have their own trademarks and then market their products to various regions in Indonesia and also export products to various countries.

#### **4.7 Consumer Robusta Coffee**

Robusta consumers are the last members of the supply chain in this study. In the structure of the Robusta coffee supply chain relationship, of course, each has its own market segmentation. Market segmentation is also related to consumers who purchase robusta coffee through channels 1, 2, or 3.

#### **4.8 Robusta Coffee Supply Chain Performance in Tukur District**

The performance of the robusta coffee supply chain in Tukur District is the result of all the performance/efforts that have been made by the members in the supply chain in meeting its objectives, namely the fulfillment of final level consumer satisfaction. The performance of the robusta coffee supply chain in Tukur District is measured through the theory of an efficient marketing approach. The analytical tools used are marketing margin and farmer's share.

##### **a. Robusta Coffee Marketing Margin Analysis in Tukur District**

Analysis of robusta coffee marketing margins in Tukur District can be measured by obtaining the components of the purchase price and selling price on the structure of the robusta coffee supply chain relationship or marketing agency. Robusta coffee farmer groups sell their harvests at different prices in each marketing channel. Robusta coffee

farmer groups set the price based on the agreement of the collecting traders, this price includes the costs of production and marketing activities which are set based on the agreement and the profits that have been obtained. The function of the marketing agency is presented in table 5.

**Table 5.** Marketing Functions in Marketing Institutions Robusta Coffee in Tukur District

Marketing Channels and Agencies	Marketing Functions								
	Measurement			Physique			Facility		
	Buy	Sell	save	exercise	Transport	Sorting Grading	Risk	Cost	Market Information
<b>Channel 1</b>									
Farmers	-	✓	*	✓	-	✓	✓	✓	✓
Collecting Merchant	✓	✓	✓	-	✓	-	✓	✓	✓
Small Merchant	✓	✓	✓	-	-	-	✓	✓	✓
<b>Channel 2</b>									
Farmers	-	✓	*	✓	-	✓	✓	✓	✓
Collecting Merchant	✓	✓	✓	-	✓	-	✓	✓	✓
Coffee Business	✓	✓	-	✓	-	-	✓	✓	✓
<b>Channel 3</b>									
Farmers	-	✓	*	✓	-	✓	✓	✓	✓
Collecting Merchant	✓	✓	✓	-	✓	-	✓	✓	✓
Industry Players	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: Primary Data Analysis, 2022.

Description:

- ✓ : Perform marketing function
- \* : Sometimes performs a marketing function
- : Does not perform marketing function

### b. Robusta Coffee Marketing Function

The marketing function at the Robusta coffee marketing agency in Tukur District carried out by the respondent farmer groups includes several functions, namely the exchange function in the form of buying and selling transactions, the physical functions include processing, transportation, and sorting (grading) activities, then the facility functions in the form of risk management, financing and market information.

### c. Robusta Coffee Farmers Group Marketing Function

Robusta coffee farmer groups perform a pertukur marketing function, namely by selling robusta coffee harvests in the form of wet logs, dry logs, green beans, roasted beans, and powder products to collectors. Collector traders carry out the exchange marketing function by buying Robusta coffee harvests from farmer groups with consideration of bargaining prices until an agreement is reached and paid in cash directly at that time. The next marketing function is carried out by traders, namely physically by transporting the results of Robusta coffee purchases from plantation land, houses or from farmer group warehouses.

#### d. Robusta Coffee Collector's Marketing Functions

Robusta coffee collectors carry out an exchange marketing function, namely by buying robusta coffee harvested from robusta farmer groups in the form of wet logs, dry logs, green beans, roasted beans and powder. Robusta coffee collectors have a large enough capital to be able to prepare the transportation and storage of the harvests of the robusta farmer groups. Robusta coffee storage activities are carried out to be able to overcome and prevent losses due to the risk of fluctuating price changes, where at any time Robusta coffee can be resold when prices have started to stabilize or increase.

#### e. Robusta Coffee Small Trader Marketing Function

Small traders of robusta coffee perform a pertukur marketing function, namely by buying robusta coffee harvests through collectors in the form of powder and then reselling them to markets, shops and stalls.

#### f. Robusta Coffee Business Actor's Marketing Function

Robusta coffee business actors perform a pertukur marketing function, namely by buying robusta coffee harvests through collectors in the form of roasted beans and powder for processing and selling them with variants of robusta coffee drinks found on their cafe menu.

#### g. Marketing Function of Robusta Coffee Industry Players

Robusta coffee industry players carry out a commercial marketing function, namely by buying robusta coffee harvests through traders in the form of wet logs, dry logs, green beans, roasted beans, and powder for processing into various variants of ground coffee products with their respective trademarks respectively. Robusta coffee industry owners sell their products to shops, stalls, and are bought directly by consumers.

Every actor in the Robusta coffee supply chain member in Tukur District is faced with the risk of price fluctuations, operational costs, so efforts need to be made to minimize these risks. The purchase price, selling price and other additional costs will then be calculated against the existing marketing margins for each marketing channel and institution.

**Table 6. Robusta Coffee Powder Marketing Margin in Tukur District**

Marketing Agency	Marketing Channels (Rp./Kg)		
	Channel 1	Channel 2	Channel 3
<b>Farmers</b>			
<b>Robusta Coffee</b>			
Cost	-	-	-
Selling price	150,000	150,000	150,000
<b>Robusta Coffee Collector Trader</b>			
Purchase price	150,000	150,000	150,000
Selling price	151,000	151,500	152,500
Margin	1,000	1,500	2,500
Cost	300	500	1,000
Profit	700	1,000	1,500
<b>Small Merchant</b>			
Purchase price	151,000		
Selling price	156,000		
Margin	5,000		
Cost	3,000		
Profit	2,000		

<b>Businessmen</b>			
<b>Robusta Coffee</b>			
Purchase price		151,500	
Selling price		160,500	
Margin		9,000	
Cost		4,000	
Profit		5,000	
<b>Industry Players</b>			
<b>Robusta Coffee</b>			
Purchase price			152,500
Selling price			158,000
Margin			5,500
Cost			3,000
Profit			2,500
<b>Total Margin</b>	<b>6,000</b>	<b>10,500</b>	<b>8,000</b>
<b>Total cost</b>	<b>3,300</b>	<b>4,500</b>	<b>4,000</b>
<b>Total Profit</b>	<b>2,700</b>	<b>6,000</b>	<b>4,000</b>

Source: Primary Data Analysis, 2022

Based on the calculation of the marketing margin of robusta coffee powder in Tutur District in Table 6, it can be seen that the total margin of channel 1 is Rp. 6,000/Kg, the total marketing cost is Rp. 3,300/Kg and the total profit earned is Rp. 2,700/kg. In the marketing margin in channel 2, the total margin is Rp. 10,500/Kg, the total marketing cost is Rp. 4,500/Kg and a total profit of Rp. 6,000/Kg. In the marketing margin in channel 3, the total margin is Rp. 8,000/Kg, the total marketing cost is Rp. 4,000/Kg and a total profit of Rp. 4,000/Kg. The low marketing margin value is one of the indicators of efficiency in the form of operational marketing activities.

#### **h. Farmer's Share Robusta Coffee in Tutur District**

Farmer's share analysis is used as an indicator of efficiency in marketing which is second after calculating marketing margins. Farmer's share is used to measure the proportion to the price of robusta coffee at the end consumer level. The analysis of farmer's share in this research/research limits the sales activities of robusta coffee farmer groups to collectors, small traders, business actors, and processing industries. Based on the results of this research, there are three farmer's share values based on the final selling price of robusta coffee (powder) with the distribution as shown in the channel in the marketing margin analysis in Table 6. Farmer's share value is a calculation of the percentage of sales of Robusta coffee farmer groups to purchases consumers, namely the selling price received by farmers and paid by final consumers.

**Table 7.** Farmers' Share in Robusta Coffee Powder Marketing Channels in Tutur District

<b>Marketing Types and Channels</b>	<b>Prices in Farmer Level (Rp./Kg)</b>	<b>Prices in Consumer Level (Rp./Kg)</b>	<b>Farmer's Share (%)</b>
For consumption			
Channel 1	150,000	156,000	96.15
Channel 2	150,000	160,500	93.45
Channel 3	150,000	158,000	94.93

Source: Primary Data Analysis, 2022.

Table 7 shows that the percentage value of farmer's share received by farmers in each channel is different. Channel 1 gets the highest farmer's share value with a value of 96.15%, then in the second position is in channel 3 with a value of 94.93% and the lowest farmer's share value is obtained by channel 2 with a percentage of 93.45%. The highest farmer's share value is obtained in channel 1 compared to channels 2 and 3, this can happen because the marketing agency in channel 1 does not have activities to add value-added Robusta coffee powder products that are sold, because consumers usually consume it immediately after making a purchase from the market, shop or shop. The results of this study show that the shorter the marketing channel and the absence of activities to add value added to coffee products, the greater the price contribution received and enjoyed by the farmer groups is higher, so that the channel is the most profitable for robusta coffee farmer groups in Indonesia. Tukur sub-district is in channel 1 because it has the highest farmer's share value compared to channels 2 and 3. Through the marketing margin and farmer's share approach, the performance of the robusta coffee supply chain in Tukur sub-district is found in channel 1, getting the lowest margin value with a value of Rp. 6.000/Kg and has the highest farmer's share with a percentage of 96.15%. so that the most profitable channel for robusta coffee farmer groups in Tukur District is in channel 1 because it has the highest farmer's share value compared to channels 2 and 3. get the lowest margin value with a value of Rp. 6.000/Kg and has the highest farmer's share with a percentage of 96.15%. so that the most profitable channel for robusta coffee farmer groups in Tukur District is in channel 1 because it has the highest farmer's share value compared to channels 2 and 3. get the lowest margin value with a value of Rp. 6.000/Kg and has the highest farmer's share with a percentage of 96.15%.

## V. Conclusion

Based on the research objectives, results and discussions that have been carried out, it can be concluded that the condition of the Robusta coffee supply chain in Tukur District has been running smoothly. Through the Food Supply Chain Network (FSCN) approach, it can be seen that the integration/cooperation between members of the robusta supply chain in Tukur District has been well established due to the presence of business actors and players in the coffee industry. This research also finds a pattern of 3 (three) marketing channels whose performance can be measured. Through marketing margin analysis, it is found that the lowest margin value is channel 1 with a value of Rp. 6.000/Kg while channel 2 and 3. However, in the farmer's share analysis channel 1 got the highest value with a percentage of 96.15% compared to channels 2 and 3.

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