

THESIS

**COMPARISON OF MIDDLEMAN'S PROFIT IN RUBBER
MATERIAL MARKETING WITH DIFFERENT QUALITY IN
UJAN MAS VILLAGE UJAN MAS SUBDISTRICT MUARA ENIM
REGENCY**



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2020**

SUMMARY

Middleman usually buy and sell high-quality and low-quality rubber material. The different quality of rubber is seen from the physical aspect which will determine the quality of the rubber, whether it is high or low quality. The aims of this study were to: 1) Analyze the difference in profits for traders between high and low quality rubber in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, South Sumatra. 2) Knowing the mechanism for determining the purchase price of rubber material by middleman in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, South Sumatra. 3) Knowing the strategies conducted by middleman so that farmers continue to sell rubber material to them in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, South Sumatra. This research was conducted in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency. The data was collected in January 2021. The method used in this study was survey method. The sampling method used in this study was *simple random sampling* consist of 10 traders who buy and sell high and low quality rubber material and 10 samples of rubber material farmers. The data obtained consisted of primary and secondary data. The results showed that 1) The total profit of middleman who buy and sell high quality rubber material is IDR 8,784,728 per month. 2) The total profit of middleman who buy and sell low quality rubber material is IDR 3,537,147 per month. 3) The profit of middleman who buy and sell high quality rubber material is bigger than the low quality one in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency. 4) Middleman determines the purchase price of rubber material based on factory prices, competitor prices, marketing costs, profit targets and market prices. 5) The strategy of middleman to keep farmers selling their rubber material includes the provision of allowances such as feast day allowance, giving debt, having family relationships and buying rubber material at a high price.

Keywords: rubber material, profit, mechanism, middleman, strategy

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MATERIAL MARKETING WITH DIFFERENT QUALITY IN UJAN
MAS VILLAGE UJAN MAS SUBDISTRICT MUARA ENIM
REGENCY***

**This thesis was written to fulfill one of the requirements to accomplish a
Bachelor's Degree in Agriculture At The Faculty Of Agriculture, Sriwijaya
University**



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2020**

APPROVAL SHEET


COMPARISON OF MIDDLEMAN'S PROFIT IN RUBBER MATERIAL MARKETING WITH DIFFERENT QUALITY IN UJAN MAS VILLAGE UJAN MAS SUBDISTRICT MUARA ENIM REGENCY


THESIS

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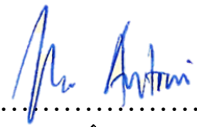
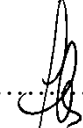
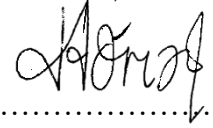
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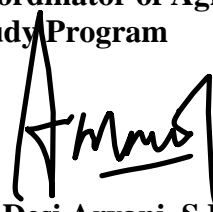
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BIOGRAPHY

The author's full name is Frisela Rut Doriani, who was born on January 11, 2000 in Tugumulyo Village, Lemembu Subdistrict, OKI Regency, South Sumatra. The author is the eldest of three children from Mr. MJ Slitonga and Mrs. Romsita Siregar.

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The author realizes that this thesis still has many flaw, therefore constructive criticism and suggestions are needed to improve the writing in the future. Finally, the author would like to say thank you, hopefully this thesis can add insight and be useful for all of us.

Indralaya, March 2021

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CHAPTER 1

INTRODUCTION

1.1. Background

Rubber has an important role in economic growth in Indonesia. One of the plantation commodities that generate foreign exchange from exports is rubber. All rubber commodities produced by farmers are processed by the rubber industry to be used as raw materials for the next industry, where the final products or semi-finished materials are used domestically and exported. Socially, if there is a change in the price of these commodities, it will directly affect the level of life and livelihood of the farmers. Indonesian rubber plantations consist of Smallholder Rubber Plantations, State-Owned Plantations and Private-Owned Plantations. The rubber area in 2018 reached 3,671,387 hectares. In 2019, the area of Indonesian rubber was 3,246,127 hectares and in 2020 reached 3,255,803 hectares. Based on the cultivation aspect, smallholder rubber plantations have low productivity of 926 kg/ha/year which is much lower than the productivity of state plantations. (1,327 kg/ha/year) and private rubber (1,565 kg/ha/year). Based on the area, small holder plantations have wider area than state-owned and private-owned plantations (Directorate General of Plantations, 2018).

Most of the rubber plantation area in Indonesia is located on Sumatra Island by 70%, Kalimantan by 24% and Java by 4%. The largest rubber plantation area in Indonesia is on the Sumatra Island. The rubber area according to concession status is 3,445,317 hectares, with a total production of 2,770,308 tons (Damanik, 2012). The dominant rubber on Sumatra Island is in South Sumatra Province. Based on the concession status in 2018, the total of smallholder rubber plantations area in South Sumatra Province is 809,436 hectares, state plantations is 10,796 hectares, and private plantations is 38,136 hectares. Rubber production in smallholder plantations is 978,257 tons, state plantations is 14,160 tons, and private plantations is 50,586 tons. South Sumatra occupies the first position on Sumatra Island based on the area of plantations and rubber production. One of the regencies that has a fairly extensive

rubber plantation with quite a lot of rubber productions is in Muara Enim Regency. The rubber cultivating area and production of rubber plantations in Muara Enim Regency in 2018 as shown in Table 1.1. below.

Table 1.1. Rubber Cultivating Area and Production of Rubber Plantations in Muara Enim Regency in 2018

No.	District	Area (Ha)	Production (Tons)
1.	Rambang	20,394	22,724.89
2.	Rambang Dangku	16,453	18,030.15
3.	Gelumbang	13,567	16,209.44
4.	Lubai Ulu	11,164	12,574.24
5.	Tanjung Agung	10,790	11,909.89
6.	Lembak	10,208	10,844.08
7.	Lubai	10,096	11,623.55
8.	Ujan Mas	9,362	10,548.00
9.	Belide Darat	9,202	11,211.20
10.	Belimbing	7,786	9,021.77
11.	Gunung Megang	7,479	8,918.00
12.	Sungai Rotan	7,368	8,702.72
13.	Kelekar	5,008	5,432.00
14.	Benakat	3,771	4,246.00
15.	Lawang Kidul	1,726	1,463.00
16.	Muara Enim	1,617	1,573.00
17.	Muara Belida	1,512	1,643.00
18.	Semende Darat Laut	874	945.00
19.	Semende Darat Tengah	0	0
20.	Semende Darat Ulu	0	0
Jumlah		133,530	167,659.21

Source: Central Bureau of Statistics Muara Enim Regency, (2019).

The data are presented in Table 1.1. describes the area of rubber plantations and the amount of production produced in Muara Enim Regency. The sub-districts that do not have rubber plantations are in Semende Darat Ulu and Semende Darat Tengah. The largest plantations that produce rubber are found in the Districts of Rambang, Rambang Dangku, Gelumbang, Lubai Ulu, Tanjung Agung, Lubai, Lembak, Ujan Mas and

Belide Darat. The area in Ujan Mas District is 9.362 ha and the total production is 10.548 tons.

Marketing is activities carried out to channel goods or services from producers to consumers and includes agricultural products. (Amar, 2017) explained that the marketing of rubber material from farmers cannot directly reach the *crumb rubber* factory. There are enough marketing institutions can cause large production costs and marketing costs so that it will affect the prices received by farmers. Marketing of this rubber processing material has channel to get to the *crumb rubber* factory. This marketing is done through two marketing channels, namely formal institutions with auction system and non-formal institutions or non-auction system. The auction system in this formal institution that there is an auction market and cooperatives, while non-auction system are village collectors and out-of-village middleman.

The existence of middleman in the marketing of rubber material is needed both by smallholder and rubber industry. For farmers, middleman is necessary because with small quantities production and the distance between farmers and industry which is generally located in the provincial capital, it will be inefficient for farmers to bring it directly to the industry (Anindita, 2004). On the other hand, for the industry, the existence of middleman is necessary to avoid delays and shortages of raw material supply which can cause losses for the *crumb rubber* industry. Therefore, it is very difficult to shift the position of middleman because industry owners are very interested in their existence. Between middleman, especially village-level middleman, and smallholder have built a strong relationship (Napitupulu, 2011).

Factors in the decision of farmers to sell rubber material to middleman are farmers' knowledge of prices, farmers' debts, capital owned by middleman and also can occur due to family relationships (Amar, 2017). Farmers who do not have capital can owe middleman for the purposes of rubber production. In general, middleman belongs to the rich group of people. The existence of a family relationship can make farmers prefer to sell their rubber material to the middleman. This bond that has been established creates the attachment and trust of farmers to middleman. Middleman are also able to give real confidence and hope to the farmer.

Muara Enim Regency, which is located in Ujan Mas Lama Village, Ujan Mas District, has a rubber farmer organization, namely Processing and Marketing Unit (PMU) named PMU Sepakat Jaya. PMU Sepakat Jaya has a membership of 200 smallholder. Ujan Mas village has about 1,000 families. The number of smallholder who are not members of the PMU is 70% of the total 700 family heads. This group that is not a member of PMU also participates in marketing the auction system. Buyers of rubber material or middleman come from outside the region and within the region. There are 10 middleman who buy rubber material in the auction system. In addition to buying in the auction system, these middleman also buy rubber material that are not auctioned. The price gap between the auction and non-auction system is IDR 1,000 to IDR 2,000. The middleman or buyers of these rubber material determine the price according to the quality of the rubber offered by the seller. The role of traders or as buyers is very important in determining prices.

The profits obtained by middleman will also be seen from the determination of the price and rubber quality, where the most advantageous position is between high or low quality rubber. This different quality of rubber is seen from the physical aspect which will determine the quality of the rubber, whether it is high or low quality. Usually there are still many low quality rubber materials being marketed and of course at prices that are not too high. How much income is obtained by middleman in the marketing of this community rubber processing material that allows the situation to survive as one of the actors in the marketing channel, namely buyers or traders. In addition to profits, there are several price factors, from market prices to factory prices, that will affect the mechanism for determining the purchase price of rubber material.

1.2. Problem Statement

Based on the explanation of the background above, several problems can be formulated to be studied, namely:

1. Is there any difference in the middleman's profit with different quality rubber material in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency?

2. How is the mechanism for determining the purchase price for rubber material by middleman in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency?
3. What is the strategy used by middleman to keep farmers sell rubber material to them in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency?

1.3. Objectives and Uses

Based on the problem statement above, the objectives to be achieved from this research are as follows:

1. Analyzing the difference in profits for middleman between high and low quality rubber in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, South Sumatra.
2. Knowing the mechanism of determining the purchase price of rubber material by middleman in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, South Sumatra.
3. Knowing the strategies used by middleman so that farmers continue to sell rubber material to them in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, South Sumatra.

The uses of this research are as follows:

1. It is hoped that this research can be a source of information and knowledge regarding the profit of middleman in rubber material marketing in different quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, South Sumatra.
2. It is hoped that this research will be useful as a scientific source for further researchers who want to undertake research related to rubber material middleman.

CHAPTER 2

LITERATURE REVIEW

2.1. Literature Review

2.1.1. Classification of Rubber

Natural Rubber (*Hevea brasiliensis*) originate from Brazil. This plant is the main source of natural rubber material in the world. Before this rubber plant was cultivated, the native in places such as: the United States, Asia and South Africa used other trees that also produce sap. Latex-like sap can also be obtained from the *Castillaelastica* plant (family moraceae). Now the sap of this plant is not being used anymore because the rubber plant is widely known and cultivated. As a latex producer, rubber plants can be said to be the only plants that are planted on a large scale (Budiman, 2012).

According to Sofiani (2018) the classification of the rubber plant *Hevea brasiliensis* is as follows:

Divisio : Spermatophyta
Sub division : Angiospermae
Class : Dicotyledoneae
Sub class : Monoclamydae
Order : Tricoccae
Family : Euphorbiaceae
Genus : Hevea
Species : *Hevea brasiliensis*

Natural rubber were introduced in Indonesia in 1864 during the Dutch colonial period, specifically in Bogor Botanical Gardens as a collection plant. Furthermore, rubber development was carried out in several plantation areas for commercial purposes. The areas that were first used as testing sites for rubber planting were Pamanukan and Ciasem, West Java. The species that was first tested in these two areas was the *Ficus elastica*. The type of rubber *Hevea brasiliensis* was only planted in Eastern Sumatra in 1902 and Java in 1906 (Sofiani, 2018). Natural rubber belongs to the Euphorbiaceae family, genus Hevea. Some Hevea species known are: *Hevea*

brasiliensis, *Hevea benthamiana*, *Hevea spruceana*, *Hevea guinensis*, *Hevea collina*, *Hevea pauciflora*, *Hevea rigidifolia*, *Hevea nitida*, *Hevea confusa*, *Hevea microphylla*. Based on the number of *Hevea* species, only *Hevea brasiliensis* which has economic value as commercial plant, because this species produces a lot of latex.

Rubber has tree that grows tall and large trunk. Plant stems contain a sap called latex. Rubber leaves consist of petioles. The length of main petiole is 3-20 cm. The length of the petiole is about 3-10 cm and the tip is gummy. Usually there are three leaf contained in a rubber leaf. The leaflets are elliptical shape, elongated with tapered tip. Rubber seeds are found in each fruit chamber. The number of seeds is usually three or six according to the number of spaces. The root of the rubber plant is tap root. These roots are able to support plant stems that grow tall and large (Sofiani, 2018).

Rubber plants are tropical plants that grow optimally in 6° South Latitude - 90 South Latitude area. Rubber grows optimally at altitude of less than 200 m above sea level with a tolerance limit of up to 600 above sea level. If it planted at an altitude of more than 600 m above sea level, its growth will be stunted. Good temperature for rubber plants is approximately 28° C. Good rainfall for rubber plants is at least 2000 mm and optimal at 2500-4000 mm/year with 100-150 rainy days per year. When it rains it affects the production of rubber plants, in areas where it rains in the morning the rubber production will be less than optimal (Sofiani, 2018).

Rubber can grow in various types of soil, both on volcanic soil, alluvial and organic soil. The degree of acidity (pH) of the soil for rubber plantations is between 3.0-8.0, but optimal at pH 5.0-6.0. When rubber is planted in soil that has a pH of less than 3.0 or more than 8.0, its growth will be stunted. The desired physical properties of the soil for rubber plantations are soils that have good depth, friability, and the ability to hold water. Areas that have a hard layer (*hard pan*) are not recommended for planting rubber. Wind is also a limiting element in rubber plantations. In areas that are passed by high wind speeds, the selection of wind-resistant clones is recommended.

2.1.2. Natural Rubber Production

Natural rubber is an annual plantation crops that grows tall and produce sap from its stems. Rubber is a very important commodity, both as a source of income, employment opportunities, foreign exchange and as a supporter of economic growth in the center of area around rubber plantations as well as environmental conservation and biological resources. The area of smallholder rubber plantations in Indonesia from 2013 to 2017 has increased. The level of rubber production from 2013 to 2014 decreased, while from 2015 to 2017 it increased. This can happen because of fluctuating world rubber prices so that it affects the results of smallholder rubber production (Siregar, 2019).

Rubber plantations are widespread in various parts of Indonesia, covering an area of 3,671,387 hectares in 2018. Rubber is cultivated and spread in all regions in Indonesia except Nusa Tenggara, West Papua and North Maluku in 2018. There are 10 (ten) provinces that have plant population 88.81% of all plantings. The ten largest province areas are South Sumatra, North Sumatra, Jambi, West Kalimantan, Riau, Central Kalimantan, South Kalimantan, Lampung, West Sumatra and Aceh. Even the West Sumatra Province, all of its business is from smallholder plantations. Most of rubber plantation is cultivated by smallholder farmers or smallholder rubber plantations that are cultivated monoculturally. The area of smallholder rubber plantations in 2018 was 3.235.761 hectares. In addition to smallholder rubber plantations, there are large private plantations with 246,050 hectares of rubber commodities. Indonesia also has a state large plantation with 189,576 hectares (Directorate General of Plantations, 2018). Smallholder rubber plantations are superior to state plantations and private plantations.

Indonesia has several areas that are suitable for rubber plantations and most of them are located on the Sumatra. Sumatra region has a very wide rubber plantation. One of the dominant areas with rubber plantations is in South Sumatra Province. South Sumatra Province is the area with the largest rubber plantations in Indonesia. Rubber plants in this province are indeed one of the types of plants that are easy to find and have even become part of culture and social life, with the amount of data obtained in 2018 the number of rubber plants in this region of 858.368 hectares. Rubber producing areas in Indonesia generally still belong to smallholders, meaning that this plantation

commodity can still be developed by the community (Directorate General of Plantations, 2018).

In 2018, Rubber Production In Indonesia where there are four groups other than non-production, namely provinces with low, medium, high and very high rubber production. There are 10 (ten) provinces which are the largest rubber producing regions in Indonesia with a total contribution of 87.99% to the total production of 3.630.357 tons of Indonesian rubber. The largest province in production is South Sumatra with total rubber production in 2018 of 1.043.003 tons, followed by North Sumatra, Riau, Jambi, West Kalimantan, South Kalimantan, Lampung, Central Kalimantan, West Sumatra and Bengkulu (Directorate General of Plantations, 2018).

2.1.3. The Concept of Quality of Smallholder Rubber Material

Natural rubber has become an international trade commodity, because not all countries in the world are able to produce latex and its coagulated products, but all countries need rubber based products. Making rubber an international commodity can give benefits to exporting countries such as Indonesia, and create jobs for smallholders that produce natural rubber. However, international rubber trade also creates competition among exporting countries.

Competition becomes tougher when consumer countries set high quality standards for natural rubber that enters their country. In order to survive in the international market and continue to produce rubber profitably, rubber producing countries must increase their competitiveness by improving the quality of their rubber processing materials, especially for countries that produce low quality rubber materials such as Indonesia. The low quality of Indonesian rubber material can be seen from the quality of the exported crumb rubber. Indonesia's crumb rubber exports in 2007 as much as 2.121.863 tons or 88.16% of Indonesia's total rubber exports. Of the crumb rubber, 97,20% is SIR 20 (*Standard Indonesian Rubber*), while SIR 10 is only 1,60% (Wiyanto, 2013).

Smallholders rubber material is the raw material for the crumb rubber industry. Rubber material are latex and latex lumps obtained from rubber trees (*Hevea*

brasiliensis). Some people state that rubber material are not produced by large plantations, but rubber material because they are usually obtained from farmers who cultivate rubber plantations. According to the processing, rubber material are divided into 4 types, namely latex, wind sheet, thin slap, and fresh lump. Historically, this industry was originally located in Singapore with processing technology capable of processing low-quality rubber raw materials. The loss of added value of overseas industries has prompted the government to ban exports of low quality rubber, so that the rubber industry in Indonesia has begun to develop. Since then, all the rubber material produced has led to the crumb rubber factory, while the type of rubber material at the farm level is only in the form of slab (Malian, 2016).

Smallholder rubber has four important roles for the Indonesian economy, namely: (1) a source of income and employment; (2) Sources of foreign exchange for the country; (3) Encouraging the growth of agro-industry in the plantation sector; and (4) environmental conservation. As source of income and employment for more than 10 million people, the plantation area and smallholder rubber production in 1996 reached 84,53 percent and 77,89 percent of the total rubber plantations in Indonesia. The total area of Indonesian rubber plantations that year was 3,480 million ha with production of 1,513 million metric tons. During the period 1986 - 1996 the area of smallholder rubber plants increased at a rate of 2,21 percent, while the production rate reached 4,46 percent (Malian, 2016).

The quality of Indonesian export rubber is influenced by the quality of rubber material produced by farmers. Indonesia's export rubber is mostly produced using farmer's rubber materials, which are the backbone of Indonesia's rubber plantations. The current condition of farmer's rubber material quality in general still does not refer to the technical requirements of Indonesian National Standard rubber material. The Indonesian government (National Standardization Agency) maintains the quality of rubber material originating from farmers by issuing the Indonesian National Standard 06-2047-2002 regarding rubber material. The application of quality standards according to ISN is absolutely necessary to improve the quality of Indonesian rubber and can be used as standard in the process of buying and selling (marketing) rubber

material transactions. Socialization activities and implementation of rubber material quality standards according to ISN have been carried out by the government through the relevant ministries and technical offices. The Ministry of Agriculture has issued the Minister of Agriculture Regulation (Permentan) No. 38/Permentan/OT.140/8/2008 concerning Guidelines for Processing and Marketing of Rubber material in the context of implementing ISN (Ministry of Agriculture, 2008). This is in line with the implementation of ISN by the Ministry of Trade as outlined in the Regulation of the Minister of Trade (Permendag) No. 53/M-DAG/PER/10/2009 concerning Quality Control of Standard Indonesian Rubber Export Processed Commodities (Ministry of Trade, 2009).

These regulations include requirements regarding the size of the thickness and cleanliness of the rubber material and the type of coagulant that can be used in the coagulation process. The use of recommended coagulants is very important in order to produce good quality rubber. Formic acid and acetic acid are coagulant or coagulant materials that do not damage the quality of rubber (Triwojoso in Handayani, 2014). Farmers are constrained in obtaining recommended coagulant because the price is relatively expensive and its availability at the farm level is often not easy to find. Around 99% of smallholder in South Sumatra produce rubber material in the form of slabs and lumps. Rubber material weight per chip ranges from 28-80 kg. Smallholder plantations (farmers) are scattered in various locations and regions. The location of this plantation will determine the access to information received by farmers regarding knowledge and technology adoption, both cultivation and processing of natural rubber. The survey results show that the level of technology adoption in smallholder plantations is low (Syarifa, 2012).

The quality of the smallholders rubber material greatly determines the foreign power of Indonesian natural rubber in the international market. With good quality rubber material, the continuity of market demand will be guaranteed in the long term. Therefore, to obtain high-quality rubber material, several technical requirements must be followed, namely not adding impurity ingredients if non rubber, coagulated with antacid at the right dose, ground in fresh state and stored in a shady place and unsoaked.

Quality assessment in technical specifications is based on the results of the analysis and several test requirements set for Standard Indonesia Rubber (SIR), namely Dry Rubber Content, Plasticity Retention Index (PRI), ash content in Standard Indonesia Rubber is intended to ensure that rubber is not too much contain contaminating material. The ash content is influenced by factors, namely contamination of contaminating materials and the type of coagulant used. In general, rubber material with low water content and coagulation using formic acid (antacid) will produce higher and consistent PRI values products. Meanwhile, rubber material with high water content and coagulated with alum, Indian three leaved yam (*Dioscorea hispida*), forest or natural acids such as slab and skrep which usually gives a low PRI value and varies widely (Nefftalia, 2015).

In postharvest handling of latex, generally latex is processed into slabs and lumps and stored in a warehouse where the productions are collected. Storage in the warehouse aims to maintain the quality of rubber material and increase the dry rubber content. Slab and lump are raw materials for natural rubber with technical specifications, especially SIR 10 and SIR 20. This type of rubber is Indonesia's largest export rubber with a percentage of more than 95%. Post-harvest handling of latex is very important to maintain the quality of rubber material, such as slabs and lumps. The things that happens during store the slabs and lumps is weight depreciation due to the release of water from the material. The composition of latex generally consists of 55-60% water, 30-40% rubber particles, and 2-4% non-rubber materials (Central Bureau of Statistics, 2015).

2.1.4. The Concept of Pricing Mechanisms

Prices are very important for the economy, because prices take very important role in the business and business being run. In other words, the price level affects the turnover of goods sold. The quantity of goods sold affects the costs incurred in relation to the procurement of goods for trading companies and production efficiency for manufacturing companies. Then the price affects the income, so the price affects the

operating profit and the financial position of the company. Tjiptono (2014) said that price is used as an indicator of the benefits that consumers get for the goods and services received, this is closely related to the value that consumers get for the price. Value can be defined as the ratio between perceived benefits to price or can be formulated as follows:

$$\text{Value} = \frac{\text{Benefit}}{\text{Price}}$$

From the above equation, the value of goods or services perceived by consumers is influenced by the benefits received which increase at a certain price, and vice versa. It can be said from the various interpretations above that price is the easiest element in marketing. Price has two main roles in the decision-making process of buyers, namely the role of allocation and the role of information:

- a) The allocation role of price, is a function of price in helping buyers to decide how to obtain the highest expected benefit or utility based on their purchasing power. Thus, the existence of prices can help buyers to decide how to allocate their purchasing power to various types of goods and services. The buyer compares the prices of the various available alternatives, then decides on the desired allocation of funds.
- b) The informational role of price, namely the function of price in educating consumers about product factors, such as quality. This is especially useful in situations where buyers have difficulty objectively assessing the product's factors or benefits. The common perception is that high prices reflect high quality.

In determining the price that must be considered are the factors that influence it, either directly or indirectly:

- a) The direct factors are the price of raw materials, production costs, marketing costs, government regulations, and other factors.
- b) Factors that are not direct but closely related to price fixing include the prices of similar products sold by competitors, the influence of prices on the

relationship between substitute products and complementary products, as well as discounts for distributors and consumers.

In setting prices, there are various methods that can be used. Pricing is usually done to add value or the amount of production costs that are calculated against the costs incurred and the sacrifice of energy and time in processing goods or services. In determining the selling price of a product, a company must pay attention to various parties such as end consumers, distributors, competitors, suppliers of funds, workers, and the government. Because the price level is inseparable from the purchasing power of consumers, the reactions of competitors, companies must pay attention to various parties such as final consumers, distributors, competitors, suppliers of funds, workers, and the government. Because the price level is inseparable from the purchasing power of consumers, the reaction of competitors, the type of product and the elasticity of demand as well as the level of company profits.

Tjiptono (2014) explains that the pricing method is grouped into four parts consisting of:

a. Demand based pricing

This method places more emphasis on prices on factors that influence consumer tastes and likes or dislikes decisions. This method ignores factors that usually affect demand such as factors such as costs, profits, and competition. Customer demand itself is based on various considerations, including: the ability of customers to buy (purchasing power), the customer's willingness to buy, the position of a product in the customer's lifestyle, which concerns whether the product is a status symbol or just a product, the benefits provided by the product. to customers, and the prices of substitute products. Included in this method are:

1. Skimming Pricing is strategy that sets a high initial price when new product is launched and will continue to decrease in price over time.
2. Penetration Price Strategy is price strategy that determines the lowest or lowest initial price with the aim of quickly penetrating the market and also building brand loyalty from consumers.

3. Pricing Affects Consumer Psychology In the concept of price, Kotler and Keller also explain that pricing affects consumer psychology, simply focusing on considering three key topics in price, namely reference prices, price-quality assumptions and price endings.

b. Cost Based Pricing Method

In this method the main determining factor is the supply or cost aspect, not the demand aspect. Prices are determined based on production and marketing costs plus a certain amount so as to cover direct costs, overhead costs, and profits.

c. Profit Based Pricing

Method This method seeks to balance revenue and costs in pricing. This effort is carried out on the basis of a specific profit volume target or expressed in the form of a percentage of sales or investment.

d. Competition Based Pricing Method

Apart from being based on considerations of cost, demand, or profit, prices can also be determined on the basis of competition, namely what competitors are doing. There are four types of competition-based pricing methods: customary pricing, above, at, or below market pricing, loss leader pricing, and sealed bid pricing.

Marketing of rubber material with auction system or partnerships has been recommended to increase the efficiency of rubber material marketing in South Sumatra. However, these conditions did not go well so that the marketing of rubber material through auctions and partnerships did not develop rapidly. One of the reasons was because at that time the price of rubber at the farmer level did not have significant difference and the rubber price received by farmers using the traditional rubber material marketing system was still able to meet the family's needs so that organized rubber material marketing was not an option for farmers to market farmers' rubber material.

At this time, the rubber price experienced long degradation accompanied by price increasing for family needs so that the rubber price received by farmers was no longer able to cover the family needs, while farmers could not influence the price of rubber. One way for farmers to increase the share of the price received by farmers is

through organized marketing so that the bargaining position of smallholder will increase.

2.1.5. Middleman

The existence of middleman in the marketing of rubber material is needed by smallholder and the crumb rubber industry. For farmers, middleman are very necessary because with the production produced in small quantities and the distance between farmers and industry which is generally located in the provincial capital, it will be very inefficient for farmers to bring it directly to the industry (Anindita, 2004). On the other hand, for the industry, the existence of middleman is very necessary to avoid delays and shortages of raw material supply which can cause losses for the crumb rubber industry. Therefore, it is very difficult to shift the position of traders because industry owners are very interested in their existence. Between middleman, especially middleman and smallholder, a very strong relationship has also been established (Napitupulu, 2011).

The middlemen are generally wealthy native in their village. Farmers perceive middleman as helping figures, and not as people who harm them. Middleman are always the pillar of hope when farmers have financial difficulties, because no rural financial institution can solve the effectiveness of middleman in overcoming farmers difficulties. In return, farmers will always be loyal to supply the rubber to middleman even though there are often better price options (Napitupulu, 2011).

In addition, good relations have been established between middleman and smallholder. The dependence of farmers on middleman causes farmers did not have an adequate bargaining position. The weak bargaining position of farmers is generally caused by the lack of access to or access to markets, market information and inadequate capital. Loans of money or other needs that are often carried out by farmers will make farmers become attached to the collecting traders (Khaswarina, 2019).

In the smallholder rubber marketing, non formal institutions are often found middlemen as patrons. In practice, the middleman tends to act with considerations that can draw empathy from the client so that there will be a very strong emotional and

kinship bond slowly between patron and client. However, the attachment formed tends to benefit the patron and weakens the client's position in marketing transactions (Napitupulu, 2011).

The relationship between farmers and middleman will take place more closely, if there is a good relationship between farmers and middleman. The dependence of farmers on middleman is so great that they do not have an adequate bargaining position. Loans of money or other needs that are often done by farmers will encourage farmers to enter into middleman and client relationships. Within the farmer's circle there is a close relationship with his relatives, because farmers know each other personally. Every farmer with other farmers has close kinship bond where this will last for the life of both individuals and groups. (Napitupulu, 2011).

2.1.6. Strategy Concept

2.1.6.1. Understanding Strategy

Etymologically is derivative of the Greek word, strategos. The strategos can be translated as "military commander" in the Athenian democracy. At first the term strategy was used in the military world which was defined as way of using all military power to win a war. Meanwhile, in terms of terminology, many experts have put forward a definition.

Strategies with different points of view but basically overall have the same meaning, is achieving goals effectively and efficiently, among the experts who formulate the definition of strategy is one of the processes in which to achieve goal and future-oriented to interact in a competition to achieve goals.

According to Purnomo Setiawan Hari (1999), actually strategy comes from the Greek "strategos" taken from the word stratos which means military and "Ag" which means to lead. So strategy in its original context was defined as general ship, which means something done by the generals in making plans to conquer the enemy and win the war.

According to David Hunger and Thomas L. Wheelen (2003), strategy is a series of managerial decisions and actions that determine the company's long-term

performance. Strategic management includes environmental monitoring, strategy formulation (strategic planning or long-term planning). Strategy implementation, evaluation and control.

Anwar Arifin (2011) state that strategy is the overall conditional satisfaction about the actions to be carried out in order to achieve goals. By looking at some of the opinions above, it can be concluded that the strategy is the stages that must be passed towards the desired target. A good strategy will provide an overview of the main actions and decision patterns that will be chosen to achieve organizational goals.

2.1.6.2. Steps of Strategy

According to Hariadi (2005) to carry out a good strategy required stages that assist in its implementation. The steps of the strategy can be explained as follows.

1. Formulation

- a. Explaining the first stage of the factors that include internal and external environmental analysis is the determination of the vision and mission, planning and strategic objectives.
- b. Strategy formulation is the process of preparing future steps that are intended to build the vision and mission, the strategic objectives and designing strategies to achieve these goals in order to provide the best customer value.
- c. Do internal and external environmental analysis to measure strengths and weaknesses as well as opportunities and threats to be faced.
- d. Set goals and targets.
- e. In the strategy stage above, a leader begins by determining his vision of what he wants to be in the future in the chosen environment and what mission he must fulfill or do now to achieve these goals.

2. Implementation

- a. After the strategy formulation stage is completed, the next crucial stage in the company's strategy is the implementation of the strategy.
- b. Strategy implementation is the process by which strategies and policies are implemented through the development of structures, program development,

budgets and implementation procedures. Strategy implementation is the most difficult stage in the strategy process, considering that there are many factors that can affect implementation in the field and may not match the initial estimate. Successful strategy must be supported by capable company with solid leader, sufficient allocation of resources, the right policies, culture, situation and conditions for the successful implementation of the strategy.

3. Matrix selection of basic strategies

The experience of many strategists shows that the use of matrices is reliable technique in selecting the master strategy. The main idea behind the use of matrices is that there are two types of variables that absolutely need attention in conducting strategic analysis, such as:

- a. The main purpose of determining the basic strategy
- b. The choice of emphasis on external and internal factors that lead to a growth orientation or profitability.

The use of the matrix becomes effective as an analytical instrument because it takes into account various influential external factors and these factors are associated not only with the strengths possessed by the business unit but also with attention to various weaknesses that may be attached to the body of the business unit concerned. The matrix approach allows the business unit to take full advantage of its strengths and at the same time try to eliminate or reduce the negative impact of its weaknesses. The use of matrices shows that attention is paid to the following:

- a. As result of the analysis carried out, various weaknesses of the business unit can be overcome.
- b. Strategists can take steps to maximize the various strength factors they have.
- c. Internally rearrange the use of funds and resources contained in the business unit.
- d. Externally take actions of acquisitions or mergers as a technique to increase the organization's ability to obtain funds and power.

2.1.7. Profit Concept

The larger the marketing margin, the smaller the share of the price received by producer farmers compared to the price paid by consumers, which means the marketing channel is inefficient. Marketing efficiency consists of technical efficiency and economic efficiency. Technical efficiency in marketing activities is related to effectiveness related to the physical aspects of marketing activities, while economic efficiency is related to effectiveness in marketing function activities in terms of profits. This thing will result in low prices received by farmers so that farmer's income does (Lismarwati, 2016).

The profits obtained by farmers depends on the marketing process carried out. The more efficient the marketing, the greater the profit that can be obtained. However, the existence of a marketing agency causes increasing the marketing costs. The marketing costs are then determining the prices given by the middleman to producers. Marketing costs consist of transportation costs, labor costs and depreciation costs. Transportation costs are transportation costs that use vehicles to deliver rubber material from farmers to rubber factories. Labor costs are costs incurred for people who assist in the process of transporting the rubber material. Depreciation costs are costs caused by the high water content in the resulting rubber material (Khaswarina, 2019).

Marketing margin is the difference of price at the farmer level as a producer with the price at the consumer level. Basically, the marketing margin is the sum of the marketing costs and profits of the institutions that provide services in the marketing process. According to Fahrurrozi (2015), mathematically the marketing margin is formulated as follows:

$$M_{ji} = P_{ri} - P_{fi} \text{ or } M_{ji} = B_i + K_i$$

Where:

M_{ji} : Middleman Margin (IDR/Kg)

P_{ri} : Price in next level (IDR/Kg)

P_{fi} : Farmer's Price (IDR/Kg)

B_i : Marketing cost at level I (IDR/Kg)

K_i : Marketing Institution's Profit at Level I (IDR/Kg)

Profit is the amount of money obtained from receipts obtained within a certain period of time which has been reduced by the total costs incurred.

$$K_i = M_{ji} - B_i$$

Description:

K_i : Middleman Profit

M_{ji} : Middleman Margin

B_i : Marketing Cost

Total marketing costs are all costs incurred to flow commodities from producers to final consumers outside of the profits of the institution. Middleman margin costs is obtained from the difference in the price received or the price paid by the final consumer. The profit of middleman is obtained from the price difference minus the costs incurred in distributing rubber material to the final consumer. Margin is the price difference or the difference in price paid by final consumers with the prices received by farmers (Fahrurrozi, 2015). Total marketing costs are all costs incurred to flow commodities from producers to final consumers excluding profits from the institution. Margin at middleman is obtained from the difference in the price received or the price paid by the final consumer. The profit of middleman is obtained from the price difference minus the costs incurred in distributing rubber material to the final consumer. Margin is the price difference or the difference in the price paid by the final consumer with the price received by farmers (Fahrurrozi, 2015).

2.2. Previous Research

Based on research by Syafriyatin (2012), the pull factors for the relationship between smallholder and internal middlemen are; (1) The factor of giving holiday allowances (2) the factor of giving debt (3) the factor of family relations (4) the factor of capital. The pull factors for the relationship between smallholder and outside middlemen are; (1) Price factor. The factors driving the relationship between smallholder and Middleman are: (1) Low price factor. The factors driving the relationship between smallholder and external middleman are: (1) The kindness factor of the internal middleman towards farmers.

The results of the research by Vachlepi, Nugraha and Alamsyah (2016) stated that rubber material mostly came from smallholder plantations in the form of slabs and lumps. As a result, the quality of rubber material in general has not met the standard required by SNI. The slab thickness is 100% including IV quality. The recommended use of coagulation materials is only 1.72%. All slabs produced by farmers are 100% dirty. The slab printing places used are various, namely plastic tubs, wooden boxes and earthen holes.

Based on research by Malian and Djauhari (2016) regarding efforts to improve the quality of smallholder rubber materials, in free trade era, it can be achieved if it has comparative and competitive advantage from competing countries. Efforts in that direction must start from improving the quality of rubber material at the farmer level, by eliminating five main inhibiting factors, namely: (1) the role of farmer groups as a business unit is not yet; (2) The demand for raw materials for the crumb rubber industry which is still oriented towards low-quality rubber material; (3) The dominance of traders in marketing rubber material, and (4) There is no mutually beneficial partnership pattern. (5) The price determination according to attractive quality has not been implemented for the product of wind sats and milled slabs.

The results of the research by Khaswarina, Kusumawaty and Eliza (2019) stated that this study aims to determine the most efficient marketing channel used by smallholder in the research location and to determine the profit value of each marketing agency in each marketing channel. The research method to see marketing efficiency used analysis of marketing margin, *farmer's share*, and Profitability Index. The results showed that the most efficient marketing channel based on the value of marketing margin, farmer's share and profitability index obtained was found in marketing channel III in Ridan Village, with a marketing profit value of IDR 1,037.5 and marketing margin of IDR1,905.

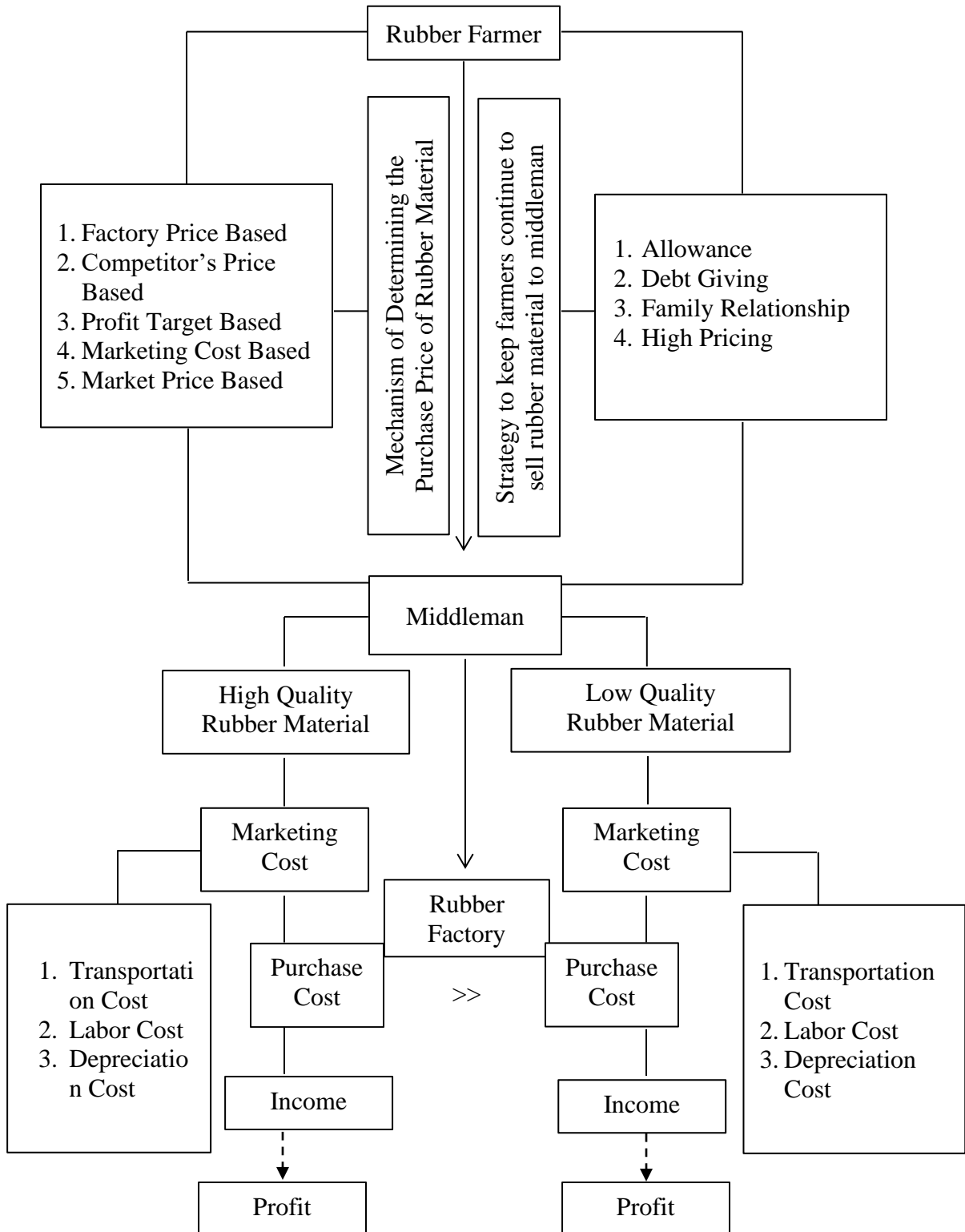
Based on the research of Wiyanto and Kusnadi (2013), the cause of the low quality of smallholder rubber in the research area is the use of another coagulant than ant acid which causes high ash content and low initial plasticity, there are contaminants

in the coagulant, and the absence of separation of production types so that the rubber mixes between low quality (which is black and dry) with new rubber.

The results of Fahrurrozi's (2015) research show that the most efficient rubber material lump bowl marketing channel based on the value of marketing margin, farmer's share and profit level (profitability index) obtained is in marketing channel II with the value of marketing margin, farmer's share and profit level of each of IDR2,331/kg, 68.92 and 2.37 with a marketing profit of IDR1,639.

2.3. Approach Model

The approach model used in this study is a diagrammatic approach model, which is as follows:



Description:

———— = Flow of activities/consisting of - - - - - ► = Obtain
 —————► = Sell Rubber material

Figure 2.1. Diagrammatic Research Approach Model

2.4. Hypothesis

Hypothesis is a temporary answer to a problem whose truth still needs to be tested. The hypothesis is temporary answer to the research problem until it is proven through the data that has been collected (Suharsimi, 2010).

Based on previous research and the theory that has been explained, the hypothesis of this research is that it is suspected that the profit of middleman who buy and sell high quality rubber materials is greater than low quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.

2.5. Limitation of Study

The limitations of study used in this study are as follows:

1. This research was conducted in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.
2. Rubber is very important commodity, both as source of income, employment opportunities, foreign exchange and as a supporter of economic growth in the center of the area around rubber plantations as well as environmental conservation and biological resources.
3. The marketing actors in this study are rubber material's middleman in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.
4. The middleman used in this study are traders who buy smallholder rubber material in Ujan Mas Lama Village.
5. The middlemen are generally wealthy native in their village. Farmers perceive middleman as helping figures, and not as people who harm them.

6. The mechanism for determining the purchase price for rubber material is way for someone, middleman, to determine the purchase price for rubber material offered by rubber material farmers.
7. The pricing mechanism consists of pricing based on factory prices, competitor prices, profit targets, marketing costs and market prices.
8. Strategy is a series of managerial decisions and actions that determine the company's performance in the long term.
9. The strategy of middleman is carried out so that farmers continue to sell smallholder rubber material to them.
10. The quality parameters of community rubber material consist of dry rubber content, recommended coagulant material, no contaminants, unsoaked in water, unexposed to direct sunlight.
11. Standard Indonesian Rubber (SIR) crumb rubber is the most widely produced and traded type of rubber recently.
12. Marketing is activities carried out to channel goods or services from producers to consumers and includes agricultural products.
13. Economic efficiency is related to effectiveness in marketing function activities in terms of profit.
14. Profit is the net income of middleman obtained from the marketing of smallholder rubber materials.
15. Marketing margin is the price difference at the farmer level as a producer with the price at the consumer level.
16. Basically the marketing margin is the sum of the costs and profits of the institutions that provide services in the marketing process.
17. Marketing costs are all costs incurred to flow commodities from producers to final consumers outside of the profits of the institution.

CHAPTER 3

RESEARCH IMPLEMENTATION

3.1. Place and Time

This research was conducted in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, South Sumatra Province. The research location was determined purposively with the consideration that Ujan Mas Lama Village is one of the areas where there are very large rubber plantations. In addition to the extensive rubber plantations, several traders buy rubber material in Ujan Mas Lama Village. Data collection and retrieval was carried out in December 2020.

3.2. Research Methods

The research method used is survey method. This survey method was carried out directly using a list of questions and statements in the form of a questionnaire and direct interviews with middleman who bought smallholder rubber material in Ujan Mas Lama Village and technical institutions in Ujan Mas District, Muara Enim Regency, South Sumatra Province.

3.3. Sampling Method

The sampling method in this research is *purposive sampling* and *snowball sampling*. According to Sugiyono (2008) *purposive sampling* is a sampling technique of data sources with certain considerations or in other words based on research needs. The sample of middleman taken is 50% of the population of middleman who buy smallholder rubber material in Ujan Mas Lama Village. It is because the population in this study is less than 100, so 50% of the population is taken as the research sample. The criteria for the sample of middleman are traders who buy and sell high and low quality. The population of high quality rubber middleman is 10 traders so that the number of samples used in the study is 5 samples. The population of low quality rubber middleman is 10 traders so that the number of samples used in this study is 5 samples. In addition to the sample of traders, a sample of farmers will also be taken to check the

accuracy of information from middleman. The method used is *snowball sampling* which is sampling technique is able to provide data that used to complement the previous data, so we have to look for other samples that can be used as data sources. The sample taken is rubber material farmers who sell to middleman where the sample taken is 10 farmers.

3.4. Data Collection Method

Data collection method is method used to collect data and other information in research on the problem research. The data used in this study are primary data and secondary data. Primary data collection was carried out by conducting direct surveys to middleman by means of interviews using questionnaires in Ujan Mas Lama Village, Ujan Mas District as the object of research. The purpose of this study was to obtain accurate data. Secondary data was obtained from literature and related institutions, such as the Central Statistics Agency, the Office of the Village Head of Ujan Mas Lama, the Muara Enim Regency Plantation Service, journals, theses and previous research that were used according to research needs.

3.5. Data Processing Method

The method used to answer the first objective regarding the mechanism for determining the purchase price of rubber material bby middleman traders in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency will be answered using descriptive method. Pricing methods can be grouped into four parts consisting of:

a. Factory Price-Based

Method based on factory price is used to see how much price is determined by the factory to buy smallholder rubber material from middleman. The price that has been determined will make middleman consider the purchase price of rubber material from farmers.

b. Based on Competitor Prices

In marketing rubber material, not only one institution is able to market rubber material, but also there are many traders who can buy farmer's rubber material. This

creates competition between traders of rubber material so that one trader must be able to be superior to other traders so that farmers want to sell their rubber material to these traders.

c. Profit Target-Based

This method seeks to balance revenue and costs in pricing. Target profit pricing is generally in the form of determination of the size of the profit target that is stated specifically. The profit to be achieved will make the middleman take steps to get more profit.

d. Based Costs Marketing

Marketing costs have become part of the marketing flow for smallholder rubber materials. Marketing costs consist of transportation costs, labor costs and storage costs. When the marketing costs incurred are high, the purchase price of farmers' rubber material will also be higher.

e. Based on Market Price

Apart from being based on factory prices, competitor prices, profit targets and marketing costs can also be determined on the basis of market prices. This can be seen by how much rubber material prices have been circulating at the farmer level. The middleman will consider how much the purchase price will be based on the market price.

In the second objective, the strategy of middleman so that farmers continue to sell rubber material to them will be answered using a descriptive method. Middleman make strategies that can be assessed more to attract and embrace farmers in order to gain high trust and continue to sell smallholder rubber material to middleman.

In addition to the mechanism for determining the purchase price of rubber material and the strategy of the middleman, the researcher also calculates the profit of the middleman. This profit calculation is carried out to see if there is a difference in the profits of middlemen rubber material between high and low quality. According to Fahrurrozi (2015), mathematically the marketing margin is formulated as follows:

$$M_{ji} = P_{ri} - P_{fi} \text{ or } M_{ji} = B_i + K_i$$

Where:

M_{ji} = Middleman Margin (IDR/Kg)

P_{ri} = Price at the next level (IDR/Kg)

P_{fi} = Price at Farmer's Level (IDR/Kg)

B_i = Marketing costs at the 1st institution (IDR/Kg)

K_i = Middleman Profit (IDR/Kg)

Profit is the amount of money earned from receipts earned within a certain period of time subtract the total costs incurred.

$$K_i = M_{ji} - B_i$$

Description:

K_i : Middleman Profits

M_{ji} : Middleman Margin

B_i : Marketing Costs

Then, to see the truth that the profit of middleman who buy and sell high quality rubber material is greater than low quality in Ujan Mas Lama Village, District In Ujan Mas, Muara Enim Regency, parametric statistical test was carried out by using the independent sample t-test, which is one of the hypothesis testing models. The t-test equations are:

$$t_{\text{hitung}} = \frac{X_1 - X_2}{\sqrt{\frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{n_1+n_2-2} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Notes:

X_1 : Average profit of middleman of high quality rubber processing materials

X_2 : Average profit of middleman of low quality rubber materials

S_1 : Standard deviation for middleman of high quality rubber processing materials profit

S_2 : Standard deviation for middleman of low quality rubber processing materials profit

S_1^2 : Profit variance of middleman of high quality rubber processing materials

S_2^2 : Profit variance of middleman of low quality rubber processing materials

n_1 : Number of samples of middleman of high quality rubber processing materials

n_2 : Number of samples of middleman of low quality rubber material

r : The correlation between the profits of middlemen of smallholder rubber materials between high and low quality.

For decision making rules in testing the research hypotheses that have been proposed, they are as follows:

1. $t_{\text{count}} < t_{\text{table}}$: reject H_1 accept H_0 , meaning that the profits of middlemen who buy and sell high quality rubber material are the same with low quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.
2. $t_{\text{count}} > t_{\text{table}}$: accept H_1 reject H_0 , meaning that middleman who buy and sell high quality rubber material is greater than low quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.

CHAPTER 4

RESULTS AND DISCUSSION

4.1. General Condition of the Research Area

This research was conducted in Ujan Mas District, Muara Enim Regency. One of the areas chosen as the location for this research is Ujan Mas Lama Village. This is supported by the consideration that Ujan Mas Lama Village is one of the most extensive rubber plantation areas and there are middleman for smallholder rubber materials where these middleman buy rubber material with different qualities.

4.1.1. Location and General Administrative Boundaries

Ujan Mas Subdistrict is one of the areas in Muara Enim, South Sumatra. Ujan Mas District is located in the western part of Muara Enim where the distance from the capital of this subdistrict to the capital of Muara Enim is ± 17 km, Ujan Mas District is bordered by:

1. North : Benakat District
2. South : Muara Enim District and Lahat District
3. East : Gunung Megang District
4. West : Lahat District

The administrative area of Ujan Mas District consists of Tanjung Raman Village, Muara Gula Baru Village, Muara Gula Lama Village, Pinang Belarik Village, Ujan Mas Lama Village, Ujan Mas Baru Village, Village Guci and Ulak Village, Bandung. The capital of the subdistrict is in Ujan Mas Baru Village, which is ± 17 km from Muara Enim District which is the capital of Muara Enim Regency. The research site, which is located in Ujan Mas Lama Village, has administrative boundaries, namely as follows.

1. North side : Bordered by Padang Bindu Village, Guci Village, Ulak Bandung Village.
2. South side : Bordering with Pinang Belarik Village, Gedung Agung Village.

3. West side : Bordered by Musi Rawas Village, Gedung Agung Village.

4. East : Bordered by Ujanmas Baru Village.

Ujan Mas Lama Village has an area of approximately 8.128,03 Ha. Ujan Mas Lama village consists of 8 hamlets consisting of Hamlet Grogol Jaya, Karang Belimbing, Prabu Jaya, Mangku Raja, Aremantai, Adipati, Jawi and Cifu.

4.1.2. Geographical and Topographical Conditions

Ujan Mas Lama Village is topographically located in the highlands. Ujan Mas Lama Village has an area of around 3,542 ha used for settlements, cemeteries, rice fields, plantations, cultivation, animal husbandry, mining, and public infrastructure. The soil in Ujan Mas Lama Village has yellow and black colors with clay and sandy textures. The climate in Ujan Mas Lama Village is generally the same as the climate in South Sumatra, tropical climate with an average maximum air temperature of 30.57° and an average minimum air temperature of 22.16°. Because it is in a tropical climate, Ujan Mas Lama Village has a dry season and a rainy season. The dry season occurs from April to September, while the rainy season occurs from October to March. The average monthly rainfall in Ujan Mas Lama Village is 15.22 mm.

4.1.3. Number of Population by Circumstances

The total population in Ujan Mas Lama Village is 4,598 with a total of 1,295 households. To see in more detail the population is grouped according to their respective circumstances. The population based on these conditions and criteria consists of residents based on gender which is divided into 2 criteria, are male and female. The population based on the livelihood conditions divides into 9 criteria, are military/police, entrepreneur, medics, farmer, civil servant, private sector, labor, traders and lecturer. While the condition of the population based on the level of education is divided into 6 criteria, such as elementary school equivalent, junior high school equivalent, senior high school equivalent, undergraduate and postgraduate. The population in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency according to the conditions and criteria are as follows.

Table 4.1. Population According to Circumstances

No.	Description	Amount (Soul)	Percentage (%)
1.	Gender		
	1. Male	2,389	52
	2. Female	2,209	48
	Total	4,598	100
2.	Livelihood		
	1. Military/Police	3	0
	2. Entrepreneur	80	4
	3. Medics	10	0
	4. Farmers	1,634	81
	5. Civil Servants	25	1
	6. Private Employees	136	7
	7. Labor	84	4
	8. Merchant	41	2
	9. Lecturer	1	0
	Total	2,014	100
3.	Education Level		
	1. Elementary School Equivalent	725	33
	2. Junior High School Equivalent	521	24
	3. Senior High School Equivalent	822	38
	4. Academy/Diploma	44	2
	5. Undergraduate	52	2
	6. Postgraduate	5	0
	Jumlah	2,169	100

Source: Recapitulation of Ujan Mas Lama Village, 2020.

Based on Table 4.1. The number of population according to gender in Ujan Mas Lama Village, which is male, is greater in number, namely 2,389 people, equivalent to 52 percent of the female population. The population according to the state of livelihood in Ujan Mas Lama Village is 2,014 people. The population whose livelihood as farmers is larger in number, is 1,634 people, equivalent to 81 percent compared to the livelihoods of the military or police, entrepreneurs, medical professionals, civil servants, private employees, laborers, traders and lecturers. It because the village is an agricultural and plantation area.

Total population according to education level in Ujan Mas Lama Village is 2,169 people. The highest education level of Ujan Mas Lama residents is senior high school with total of 822 people, equivalent to 38 percent compared to Elementary

School Equivalent, Junior High School Equivalent, Academy or Diploma, Undergraduate and Postgraduate. The small number of residents who do not continue their education to the undergraduate and postgraduate levels due to limited costs and the low mindset of the population about the importance of education.

4.1.4. Facilities and Infrastructure

Facilities are all objects that can be moved or moved. Meanwhile, infrastructure is all objects that remain in place and cannot be moved, because if they are moved they can be damaged. The following are the facilities and infrastructure in Ujan Mas Lama Village.

Table 4.2. Facilities and infrastructure

No.	Facilities and Infrastructure	Number (Units)
1.	Religion	
	Mosque	2
	Musola	4
2.	Education	
	Village/Urban	1
	Kindergarten Building	1
	Reading Gardens	1
3.	Transportation	
	Sirtu Village Road	3.1 (km)
	Regency Asphalt Road	2.0 (km)
	District Road Past the Village	2.0 (km)
4.	Health	
	Health Center	2
	Posyandu	1
	Doctor's Office	1
	Maternity Home	1
5.	Office	
	Village Head Office	1
	BPD office	1
	LKD Office	1
6.	Water Source	
	PAM	1
7.	Sport	
	Soccer Field	1
	Badminton Court	1
	Volleyball Field	6

Source: Recapitulation of Ujan Mas Lama Village, 2020.

Based on Table 4.2. the facilities and infrastructure found in Ujan Mas Lama Village include 2 mosque units and 4 prayer rooms in the religious field. Then in education field, there is 1 library unit, 1 unit of kindergarten building, 1 reading garden building. In transportation field, there are 3 roads, those are the village sirtu road along 3,1 km, the district asphalt road along 2,0 km, while for the district road passing through the village along the 2,0 km. In the health sector, there are 2 community health centers units, 1 integrated service post unit, 1 village practice office unit and 1 maternity home unit. The offices in Ujan Mas Lama Village have 1 village head office unit, 1 BPD office unit and 1 LKD office unit. As for the known water source, there is 1 drinking water company unit. In addition, there is also sports infrastructure consisting of 1 unit of a soccer field, 1 unit of a badminton court and 1 unit of a volleyball field.

4.2. Characteristics of Middleman and Farmers

Sample middleman are traders who are studied as respondents to obtain direct information and information and represent the existing population. The respondents studied were 10 traders of smallholder rubber materials who bought rubber material with different quality, both high and low quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency. The number of farmers who were taken in this study were also 10 people. Sample farmers were taken to ensure answers from middleman who bought rubber material from these farmers. Sampling under study was based on purposive sampling method. Purposive sampling is a sampling technique for data sources with certain considerations (Sugiyono, 2016). The identity of the sample middleman in this study includes age, education level, business experience, number of family members, and side jobs.

4.2.1. Middleman

The age of middleman is one of the factors that influence the activities of traders in conducting rubber material marketing efforts. The majority of middleman have reached adulthood. The characteristics of middleman in Ujan Mas Lama Village can be seen in Table 4.3.

Table 4.3. Characteristics of Middleman in Ujan Mas Lama Village

Component	Average (Year)	Highest Average (Year)	Lowest Average (Year)	Standard Deviation (Year)
Age	45	59	24	11.63
Length of Education	12	16	6	3.37
Experience Business	10	24	4	5.57
Total Dependents	4	6	2	1.58

Source: Primary Data Processed (2021)

In Table 4.3. written on the age level component of middleman in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency. The average age of middleman is 45 years. The highest average age of middleman is 59 years old and the lowest average age of traders is 24 years old. Standard deviation of the age is 11.63. The middleman who were taken as research samples were aged from 24 years to 59 years.

In component of education level, there are elementary school, junior high school, high school, undergraduate colleges and diplomas. Education level is grouped which is converted into years. The average length of education for middlemen is 12 years. The highest average length of education for middleman is 16 years and the lowest average length of education for middleman is 6 years. The standard deviation of the education of middleman is 3.37. The length of education of middleman starts from 6 years to 16 years.

Business experience is how long the middleman carry out their business activities, both trading and farming rubber. Rubber material middleman usually have different business experiences, some have been doing this business for a long time and some are new to doing it. The business experience of middleman in Ujan Mas Lama Village has an average length of 10 years. The highest average business experience is 24 years while the lowest is 4 years. The standard deviation of the middleman business experience is 5.57. This middleman business experience starts from 4 years to 24 years.

The number of middleman dependent is also one of the factors that influence them to do business because they need money to pay for their children's school fees.

The average of middleman dependent in Ujan Mas Lama Village has 4 people. The highest average number of middleman dependent is 6 people and the lowest is 2 people. The standard deviation of the middleman dependents is 1.58. The number of dependents of middleman here is from 2 to 6 people.

4.2.2. Farmers

In addition to the characteristics of middleman, there are also characteristics of smallholder in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency. The number of farmers who were taken were 10 where the farmers who sold their rubber material to middleman who had previously been interviewed. The characteristics of smallholder can be seen in Table 4.4.

Table 4.4. Characteristics of Farmers in Ujan Mas Lama Village

Component	Average (Year)	Highest Average (Year)	Lowest Average (Year)	Standard Deviation (Year)
Age	44	65	27	9.14
Length of Education	10	16	0	4.09
Business Experience	13	28	2	8.41
Total Dependents	4	5	3	0.83

Source: Primary Data Processed (2021)

In Table 4.4. written on the component of farmer's age level in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency. The average age of farmers is 44 years old. The highest average age of farmers is 65 years and the lowest is 27 years. The standard deviation of the age is 9,14. Farmers who were taken as research samples were from 27 years old to 65 years old.

In education, there are elementary school, junior high school, high school and undergraduate. Education level is grouped which is converted into years. The average length of education for farmers is 10 years. The highest average length of farmer education is 16 years and the lowest is 0 years or the equivalent of not attending school.

The standard deviation of farmer education is 4,09. The length of education of this middleman starts from not attending school until 16 years.

Business experience is how long the farmer has been doing rubber farming activities. Rubber material farmers usually have different business experiences, some have been doing this business for a long time and some are new. The business experience of farmers in Ujan Mas Lama Village has an average length of 13 years. The highest average of farmer's business experience is 28 years and the lowest is 2 years. The standard deviation of the farmer's business experience component is 8,41. The farming experience of this rubber material farmer starts from 2 to 28 years.

The quantity of farmers dependent is also one of the factors that influence farmers to cultivate smallholder rubber material because farmers need to pay for family needs. The average of farmers dependent is 4 people. The highest average of farmers dependent is 5 people and the lowest is 3 people. The standard deviation of the number of dependents of farmers is 0.83. The number of dependents of farmers is from 3 to 5 people.

4.3. Rubber Farming Conditions in Ujan Mas Lama

Farming in Ujan Mas Lama Village has agricultural and plantation sectors. The agricultural sector consists of food crops and live pharmacy plants. Total ownership of agricultural land for food crops are 1.250 families. and 1.500 families who own fruit plantations. Apart from agriculture, there are 1.295 families who own plantation area. Marketing of these plantation products is sold directly to consumers, cooperative, middlemen and retailers.

Indonesia has several areas that are suitable for rubber plantations and most of them are located on Sumatra. The Sumatra region has a very wide rubber plantation. One of the dominant areas with rubber plantations is in South Sumatra. South Sumatra is the area with the largest rubber plantations in Indonesia. The research area is in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency, where famous for its high quality rubber material. The area of smallholder rubber plantations in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency is 1.023 hectares. Rubber plantations

are more dominant than other plantations. The average for smallholder in Ujan Mas Lama Village has high quality rubber material. Low quality rubber material also still exists and marketed there.

The marketing of rubber material in Ujan Mas Lama Village can be through several institutions such as Processing and Marketing Unit (PMU), or directly through middleman. Sometimes when marketed through the Processing and Marketing Unit (PMU), the price of rubber material is quite high. This is because there are terms and conditions and can be sold at good price too. Furthermore, if it is directly sold through middleman, the purchased may have low quality so the price used as a benchmark according to the quality. The Rubber material in Ujan Mas Lama Village is generally of high quality, but some are still of low quality.

4.4. Profit of High and Low Quality Rubber Material Middleman

Profits of middleman in Ujan Mas Lama Village are divided into two groups, which is the profits who buy high and low quality rubber materials. The goal is to see the differences in actual profits are obtained but with different qualities. In accordance with the research hypothesis in chapter 2, it is assumed that the profits of middlemen who buy high quality rubber material are greater than those of low quality ones. This must be verified by calculating the profit of the middleman.

4.4.1. High and Low Quality Rubber Material

Rubber material is divided into two types, namely high and low quality rubber material. High quality rubber material is worthy to be marketed and the purchase price is also high. Beside the low quality one can be said to be far from good quality, which is usually low in price. Table 4.5. is the criteria for high and low quality rubber material based on interviews with middleman in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.

Table 4.5. High and Low Quality Rubber Material Criteria

No.	High Quality	Low Quality
-----	--------------	-------------

1. Clean and no dirt	There is dirt on the rubber material
2. Less water content	Lot of water content
3. Usually use ant acid coagulant	Usually use fertilizer or alum as the coagulant
4. Contain contaminants <5%, there are pieces of tree bark from leads, leaf debris	Containing contaminants >5%, there is soil, sand, mud, burlap sacks and plastic.
5. Usually the rubber material is not exposed to direct sunlight to keep from the damaged.	Exposed to direct sunlight, causing damage to the rubber material

Source: Primary Data processed (2021)

Table 4.5. explain how to classify which high and quality rubber material. High quality rubber material has less water content so the dry rubber content is also high. The dry rubber content is very important because it will affect the shrinkage rate of rubber material. In addition, high quality rubber material usually uses ant acid as the coagulant, while the low quality rubber material does not.

4.4.2. Marketing Costs

Marketing costs are all costs incurred by middleman in smallholder rubber material marketing consisting of depreciation costs, labor costs and transportation costs. Depreciation costs are costs resulting from depreciation of rubber material purchased from farmers to factory, and then risk of decreasing in rubber weight (IDR/month). Labor costs are costs incurred for employees who work to assist the process of transporting rubber material (IDR/month).

4.4.2.1. Depreciation Costs

Depreciation costs are calculated based on the purchase price of smallholder rubber material at the farmer level, the weight of the rubber material at the farmer and factory level. The following is in Table 4.6. is the average depreciation cost of middleman rubber material.

Table 4.6. Depreciation Costs of Middleman in Ujan Mas Lama Village Per Month

No	Component	Depreciation	Cost
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	Purchase Volume	(Kg)	(%)	(IDR/month)	(Kg)	
1	High Quality Rubber Material	6,163	99	1,6	1,044,988	170
2	Low Quality Rubber Material	5,472	241	4,4	1,574,048	288
	Margin	691	-142	-2,8	-529,060	-78

Source: Primary Data Processed (2021)

Based on Table 4.6. can be seen that the average depreciation cost by middleman who buy and sell high quality rubber materials is IDR 170/Kg, while the low quality is IDR 288/Kg. The average of total depreciation cost for high quality rubber material is lower than low quality one with a difference of IDR 78/Kg. Details of the depreciation cost of rubber material can be seen in Appendix 6 for the depreciation cost of high quality rubber material and Appendix 7 for the depreciation cost of low quality rubber material.

4.4.2.2. Labor Costs

The labor costs consist of the wages of middleman. These employees assist in all the transportation processes for rubber purchased by traders from farmers. Labor costs in Ujan Mas Lama consist of high quality labor and low quality labor. The following is in Table 4.7. is the average labor cost.

Table 4.7. Labor Costs for Middleman of People's Rubber Materials

No	Component	Purchase Volume	Cost	
			(IDR/Month)	(IDR/Kg)
1	High Quality Rubber material	6,163	1,000,000	162
2	Low Quality Rubber material	5,472	880,000	161
	Margin	691	120,000	1

Source: Primary Data Processed (2021)

Based on Table 4.7. can be seen that the average labor cost for marketing high quality rubber materials in Ujan Mas Lama Village is IDR 1,000,000/month and the average labor cost for marketing low quality rubber materials in Ujan Mas Lama

Village is IDR 162/Kg. The average total labor cost of high quality rubber materials is higher than low quality rubber materials with a difference of IDR 1/Kg. Details of the labor costs for rubber material can be seen in Appendix 8 for high quality rubber material labor costs and Appendix 9 for low quality rubber material labor costs.

4.4.2.3. Transportation Costs

Transportation costs are costs incurred for transportation used as rubber material carriers that are purchased from farmers and then sold to rubber factories. The transportation used by rubber material middleman in Ujan Mas Lama Village is rented trucks and some are using their own vehicles. Based on data obtained in the field, total of traders who rent trucks are 9 people and for those who use their own vehicles there are 1 person. Table 4.8. is the average transportation cost of middleman rubber materials.

Table 4.8. Transportation Costs for Middleman Rubber Material

No	Component	Purchase Volume	Cost	
			(IDR/Month)	(IDR/Kg)
1	High Quality Rubber material	6,163	1,110,000	180
2	Low Quality Rubber material	5,472	960,000	175
	Margin	691	150,000	5

Source: Primary Data Processed (2021)

Based on Table 4.8. It can be seen that the average transportation cost for high quality rubber materials in Ujan Mas Lama Village is IDR 180/Kg and the low quality rubber materials is IDR 175/Kg. The average total labor cost of high quality rubber materials is higher than low quality rubber materials with a difference of IDR 5/Kg. Details of rubber material transportation costs can be seen in Appendix 10 for high quality rubber material transportation costs and Appendix 11 for low quality rubber material transportation costs.

4.4.2.4. Total Cost

Total cost is the cost incurred in terms of depreciation, labor, and transportation used as rubber material carriers that are purchased from farmers and then sold to rubber

factories. In general, the total cost is the result of the sum of depreciation costs, labor costs and transportation costs. The following is in Table 4.9. is the average total cost incurred by middleman of smallholder rubber materials.

Table 4.9. Total Cost of Middleman of People's Rubber Materials in the Ujan Mas Lama Per Month

No	Component			Purchase Volume	Cost	
					(IDR/Month)	(IDR/Kg)
1	High material	Quality	Rubber	6,163	3,154,988	512
2	Low material	Quality	Rubber	5,472	3,414,048	624
	Margin			691	-259,060	-112

Source: Primary Data Processed (2021)

Based on Table 4.9. It can be seen that the average total cost of high quality rubber material marketing in Ujan Mas Lama Village is IDR 512/Kg and the average total cost for low quality rubber material in Ujan Mas Lama Village is IDR 624/Kg. The average total cost of high quality rubber material is lower than low quality rubber material with a difference of IDR 112/Kg. Details of the total cost of rubber material can be seen in Appendix 12 for the total cost of high quality rubber material and Appendix 13 for the total cost of low quality rubber material.

4.4.3. Production and Revenue of Middleman

The resulting production determines the amount of revenue obtained, the higher the production, the higher the revenue obtained. Revenue is the product of the amount of production and the selling price. The production of rubber material purchased by middleman from these farmers is at a different price for each middleman, which is around IDR 10,400/kg to IDR 10,700/kg for high quality rubber material. The purchase price for low quality rubber material is around IDR 6,324/kg to IDR 6,708/kg. Details of the production and revenue of high quality rubber material can be seen in Appendix 14 and 15 for details of the production and revenue of low quality rubber material. The

average production and revenue of high and low quality rubber material can be seen in Table 4.10.

Table 4.10. Average Revenue of High and Low Quality Rubber Material in Ujan Mas Lama Village

No	Components	Rubber Material		
		High Quality	Low Quality	Margin
1.	Volume of Rubber material in Factory (Kg/Month)	6,064	5,231	833
2.	Selling Price (IDR/Kg)	12,680	8,150	4,530
Revenue (IDR/Month)		76,887,716	42,631,835	34,255,881
Revenue (IDR/Kg)		12,476	7,791	4,685

Source: Primary Data Processed (2021)

Based on Table 4.10. can be seen that the average volume of rubber material at the farmer level for high quality in Ujan Mas Lama Village is 6,163 Kg/month and the low quality is 5,472 Kg/month. The average purchase price for high quality rubber materials is IDR 10,540/kg/month and the low quality rubber materials is IDR 6,513/kg/month. The average volume of rubber material at the factory level for high quality in Ujan Mas Lama Village is 6,064 Kg/month and low quality in Ujan Mas Lama Village is 5,231 Kg/month. The average selling price of high quality rubber material is IDR 12,680/kg/month and the low quality rubber material is IDR 8,150/kg/month. The average revenue for high-quality rubber material is IDR 12,476/Kg and for low quality, it is IDR7,791/Kg.

4.4.4. Middleman's Profit

Profit or Income is the difference between the margin received by the middleman and the total marketing costs incurred by the merchant, the size of the profit received by the middleman is determined by the margin and total marketing costs. There are two kinds of profit in this study, consist of the profits of middleman who buy and sell high and low quality rubber material.

The average profit obtained by high quality rubber material middleman is IDR 1,426/Kg and the average profit obtained by low quality rubber material middleman is IDR 1,013/Kg. It can be seen that the total profit of low quality rubber material middleman is lower than that of high quality with a difference of IDR 615/Kg. Details of the benefits of rubber material can be seen in Appendix 16 for the benefits of high quality rubber material and Appendix 17 for the benefits of low quality rubber material. The summary of the profit of high and low quality rubber material middleman can be seen in Table 4.11.

Table 4.11. Average Profits of High and Low Quality Rubber Material Middleman in Ujan Mas Lama Village

No	Components	Rubber Material		
		High Quality	Low Quality	Margin
1.	Selling Price (IDR/Kg)	12,680	8,150	4,530
2.	Purchase Price (IDR/Kg)	10,540	6,513	4,027
3.	Margin (IDR/Kg)	2,140	1,637	503
4.	Total Cost (IDR/Kg)	512	624	-112
	Depreciation Cost (IDR/Kg)	170	288	-118
	Labor Cost (IDR/Kg)	162	161	1
	Transportation Cost (IDR/Kg)	180	175	5
	Profit (IDR/Kg)	1,628	1,013	615

Source: Primary Data Processed Personally (2021)

4.4.5. The Difference Between the Profit of High and Low Quality Rubber Material Middleman

Test independent sample t-test is part of different test or comparison test. In the independent sample t-test, there are conditions that must be met, is normality test. The normality test used is the Shapiro Wilk normality test. The data for both samples must be normally distributed. Before making a conclusion whether the profit data of rubber material middleman at high and low quality is normally distributed or not, then first look at the theory about the basis of decision making in the Shapiro Wilk normality test. According to Singgih Santoso (2014), the basis for decision making is as follows.

1. If the value of Sig. > 0.05 then the data is normally distributed

2. If the value of Sig. < 0.05 then the data is not normally distributed

The results of the Shapiro Wilk normality test, obtained of the value of sig. for high quality rubber material is 0.491 and sig. for low quality rubber material is 0.850. Because the value of sig. for the two rubber material qualities > 0.05 , then as the basis for decision making in the Shapiro Wilk normality test above, it can be concluded that the profit data of rubber material traders for high quality and low quality is normally distributed. Details of the Shapiro Wilk normality test can be seen in Appendix 18.

The profit of rubber material middleman in this study are divided into two types, is the profit of high and low quality rubber material. The profit seen from the most profitable between high and low quality rubber material.

The test used SPSS to see the differencing of high and low quality rubber material profit, namely the Independent Sample T-test. The formulation of research hypothesis to determine whether there is difference between the profits of high and low quality rubber material middleman is as follows.

H0 : The profit of middleman who buy and sell high quality rubber material is the same as low quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.

H1 : The profit of middleman who buy and sell high quality rubber material is greater than low quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.

The basis for decision making in the independent sample t test in this study is as follows.

1. If the value of Sig. (2-tailed) > 0.05 , then H0 is accepted and H1 is rejected, which means that the profit of middleman who buy and sell high quality rubber material is the same as low quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.
2. If the value of Sig. (2-tailed) < 0.05 , then H0 is rejected and H1 is accepted, which means that the profit of middleman who buy and sell high quality rubber material is greater than low quality in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.

The results of the middleman profit test using Independent sample t-test between high and low quality can be seen in Appendix 18. The sig. (2-tailed) obtained a value of 0.000 which is smaller than the real level (α) 0.05, which means that H1 accepted, meaning that it can be concluded that the profit of middleman who buy and sell high quality rubber material is greater than the low one.

High quality rubber material is clearly visible in the high purchase price section. This is one of the reasons why the profit of high quality rubber material profit are greater. Rubber material which is of low quality is most likely for the price it is also definitely low. When compared with high quality, there must be price difference where the highest position falls in the high quality rubber material.

4.5. Rubber Material Pricing Mechanism in Ujan Mas Lama Village

Purchase price determined by middleman to buy rubber material from farmers in Ujan Mas Lama Village, Ujan Mas Subdistrict, Muara Enim Regency was made into several groups to explain the pricing method, grouped into four sections consisting of based on factory price, competitor price, profit target, marketing cost and market price.

4.5.1. Factory Price Based

Factory price based method is used to see how much price is determined by the factory to buy smallholder rubber material from middleman. The results of interviews with middleman explain that they look at factory prices to determine the purchase price of farmers' rubber material so they can get profits according to the middleman's plan. Table 4.12. there is mechanism or method for middleman to determine the purchase price of high and low quality rubber material based on factory prices in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.

Table 4.12. Determination of High Quality and Low Quality Rubber material Purchase Price Based on Factory Price

No Res	Purchase Volume	Factory Price	Purchase Price
High Quality	(Kg)	(IDR/Kg)	(IDR/Kg)

1.	5,700	12,680	10,500
2.	6,000	12,680	10,500
3.	6,500	12,680	10,600
4.	5,980	12,680	10,700
5.	6,635	12,680	10,400
Average	6,163	12,680	10,540
No Res Low Quality	Purchase Volume (Kg)	Factory Price (IDR/Kg)	Purchase Price (IDR/Kg)
1.	4,950	8,150	6,324
2.	5,360	8,150	6,500
3.	5,750	8,150	6,708
4.	5,500	8,150	6,324
5.	5,800	8,150	6,708
Average	5,472	8,150	6,513
Margin	691	4,530	4,027

Source: Primary Data Processed (2021)

Based on Table 4.12. it can be seen that the middleman determines the purchase price of rubber material by looking at the factory price where the factory price of the five middleman was IDR 12,680. The factory price makes middleman decide the purchase price of rubber material starting from IDR 10,400 to IDR 10,700. The first respondent decided that the purchase price was IDR 10.500 so will make more profit and stable. The second respondent set the same as first respondent purchase price, IDR 10,500. The third respondent set the price of IDR 10,600, due to the fact that farmers sell their rubber material more often to middleman so still get profit. Even the fourth respondent, the purchase price was IDR 10,700 that it will attracts the interest of farmers and still earns a profit. The fifth respondent was shown that the purchase price of rubber material was IDR 10,400, with such a price the middleman would get a bigger profit. In addition, there is also determination of the purchase price of low quality rubber materials based on factory prices in Ujan Mas Lama Village, Ujan Mas District,

Muara Enim Regency. The middleman determines the purchase price of the rubber material by looking at the factory price where the factory price of the five middleman is IDR 8,150. The factory price made middleman decide the purchase price of rubber material starting from IDR 6,324 to IDR 6,708. The margin of volume between high and low quality rubber material is 691 Kg. The margin of the factory price of high and low quality rubber material is IDR 4,530/Kg. The margin of the purchase price of high quality rubber material and low quality rubber material is IDR 4,027/Kg.

4.5.2. Based on Competitor Prices

In marketing rubber material, not only one institution is able to market rubber material, but there are many traders who can buy farmers' rubber material. This is what creates a competition between traders of rubber material so one trader must be able to be superior to other traders so that farmers want to sell their rubber material to these traders. The results of interviews that middleman look at their competitors prices to determine the purchase price of rubber material so that middleman are not less competitive in getting customers, which they can get profits. The following is in Table 4.13. there is a mechanism or method for middleman to determine the purchase price of high and low quality rubber material based on competitors' prices.

Table 4.13. Determination of High Quality and Low Quality Rubber material Purchase Prices Based on Competitor Prices

No Res	Purchase Volume	Competitors Price	Purchase Price
High Quality	(Kg)	(IDR/Kg)	(IDR/Kg)
1.	5,700	10,400	10,500
2.	6,000	10,500	10,500
3.	6,500	10,700	10,600
4.	5,980	10,500	10,700
5.	6,635	10,600	10,400
Average	6,163	10,540	10,540
Res	Purchase Volume	Competitor Price	Purchase Price
Low Quality	(Kg)	(IDR/Kg)	(IDR/Kg)
1.	4,950	6,708	6,324
2.	5,360	6,324	6,500
3.	5,750	6,324	6,708
4.	5,500	6,708	6,324
5.	5,800	6,500	6,708
Average	5,472	6,513	6,513
Margin	691	4,027	4,027

Source: Primary Data Processed (2021)

Based on Table 4.13. it can be seen that middleman determines the purchase price of rubber material by looking at the competitor's price or the price of other middleman where the competitor's price to the first respondent is IDR 10,400, but middleman prefer to determine a higher price of IDR 10,500. In the second respondent, the competitor's price is IDR 10,500 and the middleman sets the same price here, which is IDR 10,500. In the third respondent, it can be seen that the competitor's price is IDR 10,700, then the middleman also determines a lower purchase price, which is IDR 10,600. In the fourth respondent, the competitor's price is IDR 10,500 and the trader determines the purchase price of rubber material is higher, which is IDR 10,700. The

fifth respondent, the competitor's price is IDR 10,600 and the middleman determines the purchase price of IDR 10,400. In addition, there is also determination of the purchase price of low quality rubber material based on competitors' prices. The middleman determines the purchase price of rubber material by looking at the competitor's price or the price of other middleman where the competitor's price to the first respondent is IDR 6,708, but traders prefer to determine a cheaper price of IDR 6,324. In the second respondent, the competitor's price is IDR 6,324 and the trader sets a higher price here, which is IDR 6,500 in order to attract farmers to sell their rubber material. In the third respondent, it can be seen that the competitor's price is IDR 6,324, then middleman also determine higher purchase price, which is IDR 6,708. In the fourth respondent, the competitor's price is IDR 6,708 and the middleman determines lower purchase price, which is IDR 6,324. The competitor's price of fifth respondent is IDR 6,500 and IDR 6,708 as the purchase price. The margin of purchase volume between high and low quality rubber material is 691 Kg. The margin of competitor prices between high and low quality rubber material is IDR 4,027/Kg. The margin of purchase price between the high and low quality rubber material is IDR 4,027/Kg.

4.5.3. Profit Target-Based

This method try to balance revenue and costs in pricing. The profit to be achieved will make the middleman take steps to get more profit. These middlemen certainly want to achieve the greatest profit. Therefore, the middleman also calculate how much profit they want to achieve, then after that the middleman determine the purchase price of the farmer's rubber material with the amount of production that already exists. The following is in Table 4.14. there is a mechanism or method for middleman to determine the purchase price of high and low quality rubber material based on profit targets.

Table 4.14. Determination of High Quality and Low Quality Rubber material Purchase Prices Based on Profit Targets

No Res High Quality	Factory Price (IDR/Kg)	Total Cost (IDR/Kg)	Profit Target (IDR/Kg)	Purchase Price (IDR/Kg)
1.	12,680	560	1,500	10,620
2.	12,680	472	1,400	10,808
3.	12,680	535	1,500	10,645
4.	12,680	450	1,300	10,930
5.	12,680	540	1,400	10,740
Average	12,680	511	1,420	10,749
Res No. Low Quality	Factory Price (IDR/Kg)	Total Cost (IDR/Kg)	Target Profit (IDR/Kg)	Purchase Price (IDR/Kg)
1.	8,150	596	900	6,654
2.	8,150	605	800	6,745
3.	8,150	683	800	6,667
4.	8,150	580	900	6,670
5.	8,150	648	850	6,652
Average	8,150	624	850	6,678
Margin	4,530	-112	570	4,071

Source: Primary Data Processed (2021)

Based on Table 4.14. obtained the purchase price of high quality smallholder rubber materials. The cost of goods is obtained from the factory price, total costs and profit targets to be achieved by rubber material middleman. Each respondent has a different cost of goods where the highest cost of goods here is in the fourth respondent with a cost of IDR 10,930. Before this cost was immediately used as the purchase price, all respondents also looked at market prices and competitor's prices. In addition, middlemen determine the purchase price of low quality rubber material based on profit targets.

Based on Table 4.14. obtained the cost of goods of low quality rubber material. The cost of goods is obtained from the factory price, total costs and profit targets to be achieved by rubber material middleman. Each respondent has a different cost of goods where the highest cost of goods here is in the second respondent with a cost of IDR 6,745. Before this cost of goods is directly used as the purchase price, all respondents

also look at the market price and also the price of competitors or other. The factory price margin of high and low quality rubber material is IDR 4,530/Kg. The margin in total cost between high and low-quality rubber material is IDR 112/Kg. The profit target margin of high and low quality rubber material is IDR 570/Kg. The margin in the purchase price between high and low quality rubber material is IDR 4,071/Kg.

4.5.4. Marketing Cost Based

Marketing costs have become part of the marketing flow for smallholder rubber materials. Marketing costs consist of transportation costs, labor costs and storage costs. When the marketing costs incurred are high, the purchase price of rubber material will also be higher. The middleman also see the marketing costs incurred for marketing rubber material purchased from farmers. If the marketing costs incurred are high, it is necessary for middleman to increase the purchase price of rubber material so that traders have no loss. The following is in Table 4.15. there is mechanism for middleman to determine the purchase price of high and low quality rubber material based on marketing costs.

Table 4.15. Determination of High and Low Quality Rubber Material Purchase Prices Based On Marketing Costs

No Res High Quality	Factory Price (IDR/Kg)	Marketing			Costs Total
		Costs Depreciation	Costs Labor	Costs Transportation Costs	
1.	12,680	210	175	175	560
2.	12,680	105	167	200	472
3.	12,680	212	154	169	535
4.	12,680	107	167	176	450
5.	12,680	208	151	181	540
Average	12,680	170	162	180	511
No Res			Marketing		Costs Total

High Quality	Factory Price (IDR/Kg)	Costs Depreciation	Costs Labor	Costs Transportation Costs	
1.	8,150	253	162	182	596
2.	8,150	325	149	131	605
3.	8,150	335	174	174	683
4.	8,150	253	145	182	580
5.	8,150	268	172	207	648
Average	8,150	288	161	175	624
Margin	4,530	-118	1	5	-112

Source: Primary Data Processed (2021)

Based on Table 4.15. there is a selling price of rubber material to the factory, which is IDR 12,680/Kg. Marketing costs for each middleman are calculated to keep the profit target can be achieved. The total cost for the first respondent is IDR 560/Kg, the second respondent is IDR 472/Kg, the third respondent is IDR 535/Kg, the fourth respondent is IDR 450/Kg and the fifth respondent is IDR 540/Kg. In addition, there is also a determination of the purchase price of low quality rubber materials based on marketing costs in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency. Based on Table 4.15. there is a selling price of rubber material to the factory, which is IDR 8,150/Kg. Marketing costs for each middleman are calculated to achieve the profit. The total cost for the first respondent is IDR 596/Kg, the second respondent is IDR 605/Kg, the third respondent is IDR 683/Kg, the fourth respondent is IDR 580/Kg and the fifth respondent is IDR 648/Kg. The margin of factory price between high and low quality is IDR 4,530/Kg. The margin of depreciation cost between high and low quality rubber material is IDR 118/Kg. The margin of labor costs between high and low quality rubber material is IDR 1/Kg. The margin of transportation costs between high and low quality rubber materials is IDR 5/Kg.

4.5.5. Market Price Based

Apart from being based on factory prices, competitor prices, profit targets and marketing costs, the purchase price also be determined on the basis of market prices. This is seen by how much rubber material prices have been circulating at the farmer level. The broker will consider how much the purchase price will be based on the market price. In interviews with middleman when asked how to determine the purchase price, whether to look at the market price. On average, middleman answered yes because market prices are very important so that they don't make the wrong decision to buy rubber material from farmers. The goal is to make the rubber material price remains stable and they still get profits. The following is in Table 4.16. there is mechanism or method for middleman to determine the purchase price of high and low quality rubber material based on market prices.

Table 4.16. Determination of High and Low Quality Rubber Material Purchase Price Based on Market Price

No Res High Quality	Purchase Volume (Kg)	Market Price (IDR/Kg)	Purchase Price (IDR/Kg)
1.	5,700	10,500	10,500
2.	6,000	10,500	10,500
3.	6,500	10,500	10,600
4.	5,980	10,500	10,700
5.	6,635	10,500	10,400
Average	6,163	10,500	10,540
No Res Low Quality	Purchase Volume (Kg)	Market Price (IDR/Kg)	Purchase Price (IDR/Kg)
1.	4,950	6,324	6,324
2.	5,360	6,324	6,500
3.	5,750	6,324	6,708
4.	5,500	6,324	6,324
5.	5,800	6,324	6,708
Average	5,472	6,324	6,513
Margin	691	4,176	4,027

Source: Primary Data Processed (2021)

Based on Table 4.16. the purchase price determined by the middleman is the same and some is different. In the first respondent, seen by the price that is usually

available in the market, it is IDR 10,500, so the purchase price for the first respondent takes the price of IDR 10,500. In the second respondent, the participating middleman also determine the purchase price is the same as the market price, so it remains at IDR 10,500. The third respondent is a middleman who prefers a higher price than the price that is usually marketed because it can be seen that middleman still get more profits. In the fourth respondent here, the trader determines the purchase price is IDR 10,700, this is also due to the lower market price is IDR 10,500. In the fifth respondent, the rubber material middleman choose a lower price than the market price, which was IDR 10,400. In addition, there is also a determination of the purchase price of low quality rubber material based on market prices.

Based on Table 4.16. the purchase price determined by middleman is the same and some is different. In the first respondent, judging by the price that is usually in the market, it is IDR 6,324 and middleman take the same price as the market price, which is IDR 6,324. In the second respondent, the participating middleman also increased the purchase price by more than the market price of IDR 6,500. The third respondent here, middleman prefer a higher price than the usual market price, which is IDR 6,708 because middleman still get more profits even though the price is higher and can attract farmers to sell rubber material to third respondent. In the fourth respondent, the middleman determines the purchase price of rubber material of IDR 6,324, this is also because the price is equated with the market price of IDR 6,324. In the fifth respondent, middleman choose higher price than the market price, which was IDR 6,708. The purchase volume margin between high and low quality rubber material is 691 Kg. The market price margin between high and low quality rubber material is IDR 4,176/Kg. The margin in the purchase price between high and low quality rubber material is IDR 4,027/Kg.

4.6. Strategy of Rubber Material Middlemen in Ujan Mas Lama Village

The strategy of middlemen in Ujan Mas Lama Village, Ujan Mas Subdistrict, Muara Enim Regency which was carried out to maintain rubber material farmers as customers, all traders gave something that could help rubber material farmers. Middleman hope that in some way it will attract the interest of rubber material farmers to continue selling their rubber material to them. The strategy is divided into 4 components, those are the provision of allowances, the provision of debt, the existence of family relationships and the provision of high rubber material purchase prices. The following is in Table 4.17. is the number of traders who use 5 strategies to keep farmers from selling their rubber material.

Table 4.17. Total of Traders Using 4 Strategies to Maintaining Farmers

High	Quality		Low Quality	
	(People)	(%)	(People)	(%)
Allowance	5	28	5	28
Debt Granting	5	28	5	28
Family Relations	3	16	5	28
High Pricing	5	28	3	16
Total	18	100	18	100

Source : Primary data processed (2021)

Table 4.17. shows the total of traders who use strategies to keep farmers from selling their rubber material to middleman. The total of middleman who provision of allowances is 10 traders, then there are 10 traders in debt, 8 traders with family relationships, and 8 traders for providing capital and giving high prices as one of the strategies to attract the attention of farmers are 8 traders. When confirmed to middleman, they provide allowances such as holiday allowance such as food and drinks. This has become the tradition there for holidays or big days. After that, farmers were also interviewed to find out whether it was true that middleman gave allowances and farmers answered that they received it from traders. The following is farmer's answer about the assistance that comes from the middleman.

Table 4.18. Total of Farmers Who Receive 4 Trader Strategy

Component	High		Quality Low Quality	
	(person)	(%)	(person)	(%)
Allowance	5	28	5	28
Debt	5	28	5	28
Family Relationship	3	16	5	28
High Rubber material Purchase Price	5	28	3	16
Total	18	100	18	100

Source: Primary Data Processed (2021)

Rubber material farmers are not always able to fulfill their needs. This is usually constrained by the availability of farmer funds. Most farmers have debts to buy equipment, seeds, seedlings, fertilizers for rubber farming. During interviews with middleman, middleman gave loans to farmers around IDR 1,000,000 per month. This causes farmers sell their rubber material to middleman. Even during interviews with farmers, they were given a loan if the farmer wanted to borrow the money. In addition, family relationships are also included in the strategy of middlemen. There are middleman and farmers in Ujan Mas Lama Village who have family relationship. The farmer will automatically sell his rubber material to the closest person or a relative whose profession is a rubber material middleman.

Furthermore, there is the provision of capital to rubber material farmers. At the time of the interview with the middleman, the result was that no one had provided capital for the rubber material farmers. Traders only give loans to farmers for their needs in rubber farming. When asked to farmers as well, farmers answered that they had never been given capital by the middleman.

In this rubber material marketing, the price is determined by the middleman. One of the middleman strategie in Ujan Mas Lama Village is to give high prices to farmers so that farmers want to sell their rubber material to traders. At interview with the middleman, they also gave a fairly high price but the profit could still be calculated. When confirmed to the farmer, they answered that sometimes the middleman gave the farmer a high price. It has been seen how the strategy of middlemn so that farmers continue to sell their rubber material to middleman in Ujan Mas Lama Village.

According to farmer's responses, rubber material farmers prefer the part of providing allowances or holiday allowance and giving high rubber material purchase prices. This is due to the needs of farmers where farmers need money obtained from the sale of rubber material, with the high price obtained by farmers it will meet the needs of farmers and make farmers happier. Likewise with the provision of holiday allowance, farmers are happy to get holiday allowance because it can complement their needs as well. The strategy of rubber material middleman preferred by farmers can be seen in Table 4.19.

Table 4.19. Trader Strategy Preferred by Rubber material Farmers

Component	High Quality		Low Quality	
	(person)	(%)	(person)	(%)
Allowance	5	50	5	50
High Purchase Price	5	50	5	50
Total	10	100	10	100

Source: Primary Data Processed (2021)

CHAPTER 5

CONCLUSIONS AND SUGGESTIONS

5.1. Conclusion

Based on the results of the research and discussion that has been carried out, the conclusions are as follows:

1. The average total profit of middleman who buy and sell high quality rubber material is greater than middleman who buy and sell low quality rubber material in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency.
2. The average mechanism for determining the purchase price for rubber materials by middleman in Ujan Mas Lama Village, Ujan Mas District, Muara Enim Regency is based on factory prices, competitor prices, profit targets, marketing costs and market prices.
3. The average strategy carried out by middleman is to keep farmers sell their rubber material to middleman in Ujan Mas Lama Village namely provide allowances such as holiday allowance, provide debt to farmers, have family relationships with farmers and provide high purchase prices. The most favored strategy by farmers is the provision of holiday allowance and high rubber material buying prices.

5.2. Suggestions

Based on the results of research and discussion, there are several suggestions that are recommended for consideration, as follows:

1. It is better if the middleman prefer to buy and sell high quality rubber material so that the profits obtained are also high, both from the middleman and the rubber material farmers.
2. Middleman should support to farmers such as capital assistance to maintain rubber material farmers as farming actors who sell their rubber material to middleman.

REFERENCES

- Alamsyah, A., I.S. Nugraha, D.S. Agustina and A. Vachlepi. 2017. The Implementation of Processing and Marketing Unit of Raw Rubber Material in Supporting Movement of Clean Raw Rubber Material in South Sumatra (Tinjauan Penerapan Unit Pengolahan dan Pemasaran Rubber material untuk Mendukung Gerakan Rubber material Bersih Di Sumatera Selatan). *Warta Perkaratan* 2017, 36 (2), 159-172.
- Amar, A., S. Murdy, and I. Sardi. 2017. The Relationship Between Farmer's Trust in Sales of Processed Rubber Materials to Collecting Traders in Muaro Jambi Regency Jambi Province (Hubungan Kepercayaan Petani Terhadap Penjualan Bahan Olah Karet Kepada Pedagang Pengumpul di Kabupaten Muaro Jambi Provinsi Jambi). *Journal of SocioEconomic Business*, 20(1), 1-10.
- Atmadji. 2007. Factors that Determine the Remaining Profits of Cooperatives from Financial and Non-financial Aspects (Faktor-faktor yang Menentukan Besarnya Sisa Hasil Usaha Koperasi dari Aspek Keuangan dan Non-keuangan). *Journal of Business and Management*, 7(2), 217-232.
- Central Bureau of Statistics. 2015. *Indonesia Rubber Statistics (Statistik Karet Indonesia)*. Jakarta, Indonesia: Central Bureau of Statistics.
- Central Bureau of Statistics Muara Enim. 2019. *Muara Enim Regency in Numbers (Kabupaten Muara Enim dalam Angka)*. Muara Enim: Central Bureau of Statistics Muara Enim.
- National Standarization Agency of Indonesia. 2002. *Indonesian Nasional Standard SNI 06-2047-2002: Rubber Material (Standar Nasional Indonesia SNI 06-2047-2002: Bahan Olah Karet)*. Jakarta: National Standarization Agency of Indonesia.
- Boeree, G. 2008. *The Basic of Psychology (Dasar - dasar Psikologi)*. Yogyakarta: Prismaophie.
- Budiman H. 2012. *Superior Rubber Cultivation (Budidaya Karet Unggul)*. Yogyakarta: Pustaka Baru Press.
- Damanik, S. 2012. The Development of Rubber (*Havea brasiliensis*) in Indonesia (Pengembangan Karet (*Havea brasiliensis*) Berkelanjutan di Indonesia). *Perspective Journal*, 11(1), 91-102.
- The National Ministry of Education. 2012. *Official dictionory of the Indonesian Language Fourth Edition (Kamus Besar Bahasa Indonesia Pusat Bahasa Edisi Keempat)*. Jakarta: PT. Gramedia Pustaka Utama.
- Directorate General of Agriculture. 2018. *Indonesian Plantation Statistics for Rubber Commodities in 2018-2020*. Agriculture Department Directorate General of Agriculture. Jakarta.

- Elaine, B.J. 2007. *Contextual Teaching & Learning: Making Teaching and Learning Activities Fun and Meaningful* (Menjadikan Kegiatan Belajar Mengajar Mengasyikan dan Bermakna). Bandung: MLC.
- Fahrurrozi. 2015. Analysis of The Efficiency of Marketing Channels for Rubber Material (Rubber material) from Kompas Raya Village North Pinoh District Melawi Regency (Analisis efisiensi saluran pemasaran bahan olahan karet rakyat (Rubber material) lump mangkok dari Desa Kompas Raya Kecamatan Pinoh Utara Kabupaten Melawi). *Agrise Journal*.
- Hafsah, F.M., P.C. Violeta, C. Pratama, and Novindra. 2014. Research Report: Analysis of Income and Welfare Level of Rubber Farmers in Plasma Plantation in Sungai Hijau Village, Pangkalan Banteng District West Waringin City Regency Central Kalimantan (Analisis Pendapatan dan Tingkat Kesejahteraan Petani Karet Perkebunan Plasma Desa Sungai Hijau Kecamatan Pangkalan Banteng Kabupaten Kota Waringin Barat Kalimantan Tengah).
- Handayani, H. 2014. The Impact of Various Types of Solid Agglomerates on the Quality of Coagulum and Natural Rubber Vulcanisate (Pengaruh Berbagai Jenis Penggumpal Padat Terhadap Mutu Koagulum Dan Vulkanisat Karet Alam). *Journal of Rubber Research*, 32(1), 74-80.
- Ihsan, F. 2005. *The Basic of Education*. Jakarta: PT Rineka Cipta.
- Ministry of Trade. 2009. Regulation of The Minister of Trade No. 53/M-DAG/PER/10/2009 Concerning Quality Control of Exported Standard Indonesian Rubber Processed Commodities That Are Traded.
- Ministry of Trade. (2008). Minister of Agriculture Regulation No. 38/permentan/ot.140/8/2008 concerning Processing and Marketing of Rubber Processing Materials. Jakarta, Indonesia: Ministry of Agriculture.
- Khaswarina, S., K. Yeni and Eliza. 2018. Analysis of Marketing Channels and Marketing Margin of Rubber Material (Rubber material) in Kampar Regency (Analisis Saluran Pemasaran dan Marjin Pemasaran Bahan Olahan Karet Rakyat (Rubber material) di Kabupaten Kampar). *Unri Conference Series: Agriculture and Food Security*, 1:88-97.
- Malian, H. and D. Aman. 2016. The Effort to Improve The Quality of Rubber Material (Upaya Perbaikan Kualitas Bahan Olah Karet Rakyat). *Journal of Agro Economic*, 17(2), 43-50.
- Napitulu. 2011. Natural Rubber Trading System Study: Efforts to Improve Farmers' Welfare. *Journal of Rubber Research*, 29(1), 76-92.
- Nefftalia, Y.M., H.B. Daulay and F.E.D. Surawan. 2015. Identification of People's Rubber material (Rubber Processing Materials) Entering PTPN VI (Persero) Padang Pelawi Unit, Seluma Regency (Identifikasi Rubber material (Bahan Olah

Karet) Rakyat Yang Masuk Ke Ptpn Vii (Persero) Unit Padang Pelawi Kabupaten Seluma). *Journal of Agroindustry*, 5(2), 95-108.

- Notoatmodjo, S. 2010. *Behavioral Health Sciences*. Jakarta: Rineka Cipta.
- Nugraha, S.I., A. Aprizal dan S.A. Dwi. 2019. Peningkatan Bagian Harga yang Diterima Petani Karet Melalui Pemasaran Terorganisir. *Jurnal Warta Perkaratan*, 38(1), 35-46.
- Rahman, H. (2015). Increasing the Share of Prices Received by Rubber Farmers Through Organized Marketing. *Journal of Rubber News (Pengembangan pasar lelang forward komoditas bahan olah karet (rubber material) di Provinsi Sumatera Selatan)*. *Jurnal Agri Ekonomika*, 4(2), 185-197.
- Regina, Y. (2016). Social Impact after the Decline in Rubber Prices (Study in Mangat Baru Village, Dedai District, Sintang Regency, West Kalimantan) (Dampak Sosial Pasca Penurunan Harga Karet (Studi di Desa Mangat Baru Kecamatan Dedai Kabupaten Sintang, Kalimantan Barat)). *Journal of Sociology*, 4(2), 1-17.
- Salim, A., A.N. Zozy dan Suwirman. 2015. Growth of Rubber Seeds (*Hevea brasiliensis* Mull Arg.) After Administration of Several Doses of Indigineous Arbuscular Mycorrhizal Fungi (FMA) from Biological Education and Research Forest (HPPB) Andalas University, Padang (Pertumbuhan Bibit Karet (*Hevea brasiliensis* Mull Arg.) Setelah Pemberian Beberapa Dosis Fungi Mikoriza Arbuskula (FMA) Indigineous Dari Hutan Pendidikan Dan Penelitian Biologi (HPPB) Universitas Andalas Padang). *Andalas University Biology Journal.*, 4(1), 31-37.
- Santoso, Singgih. 2014. *Statistik Parametrik Edisi Revisi*. Jakarta: Elex Media Komputindo.
- Siregar, F. 2019. Risk of Farmers' Rubber Production in the District of Vocational Youth, Aceh Tamiang Regency (Risiko Produksi Karet Petani di Kecamatan Kejuruan Muda Kabupaten Aceh Tamiang). *Journal of Agrisamudra Research.*, 5(1), 68-75.
- Sofiani. 2018. Cultivation of Rubber Plants (*Hevea brasiliensis*) in Indonesia and its Economic Study (Budidaya Tanaman Karet (*Hevea brasiliensis*) di Indonesia dan Kajian Ekonominya). *Journal of Agrotechnology*.
- Sugiyono. 2008. *Qualitative Quantitative Research Methods and R&D*. Bandung: Alfabeta
- Syafriyatin, Y. and S. Khaswarina. 2012. Pattern of Relationship Between Rubber Farmers and Toke (*Patron-Client*) in Sawah Village, North Kampar District, Kampar Regency (Pola Hubungan Antara Petani Karet Dengan Toke (*Patron-Client*) Di Desa Sawah Kecamatan Kampar Utara Kabupaten Kampar).
- Syarifa, L.F., D.S. Agustina, C. Nancy, and M. Supriadi. 2012. Evaluation of the adoption rate of superior clones at the rubber farmer level in South Sumatra

- Province (Evaluasi tingkat adopsi klon unggul di tingkat petani karet di Provinsi Sumatera Selatan). *Journal of Rubber Research*, 30, 1, 12-22.
- Tjiptono, Fandy. 2014. *Service Marketing, Principles, Application and Research (Pemasaran Jasa, Prinsip, Penerapan dan Penelitian)*. Yogyakarta: Andi Offset.
- Vachlepi, A and M. Solichin. 2008. Application of Deorub K liquid smoke formula as a latex coagulant (Aplikasi formula asap cair Deorub K sebagai penggumpal lateks). *Warta Perkaretan*, 27, 2, 80-87.
- , A., Nugraha, I. S., & Alamsyah, A. (2016). Quality of rubber material from farmers' gardens in the mining operational area of Musi Banyuasin Regency (Mutu rubber material dari kebun petani di areal operasional tambang Kabupaten Musi Banyuasin). *Standardization Journal*, 18(2), 83-90.
- Wiyanto, and N. Kusnadi. 2013. Factors affecting the quality of smallholder rubber (the case of smallholder plantations in Tulang Bawang Tengah District, Tulang Bawang Regency, Lampung) (Faktor-faktor yang mempengaruhi kualitas karet perkebunan rakyat (kasus perkebunan rakyat di Kecamatan Tulang Bawang Tengah Kabupaten Tulang Bawang Lampung)). *Indonesian Agribusiness Journal*, 1(1), 39-58.