

**Determination of Rubber Farmers Selling Bokar to Middlemen  
Around Factory in OKU Regency  
South Sumatera Province**

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**Abstract**

*Residents in Ogan Komering Ulu (OKU) Regency on average have a livelihood as rubber farmers. The phenomenon that appears in OKU Regency today is that there are still many farmers who sell their rubber to middlemen around the rubber factory. This is of course interesting to study, because of that factories were established aimed at helping rubber farmers in terms of marketing rubber. The problem raised in this study is what factors affect farmers around the factory, especially those who sell their rubber to middlemen, not rubber processing factories. This study aims to analyze the factors that influence farmers to sell their rubber to middlemen around the rubber factory in OKU Regency. In Lubuk Raja District there is a rubber processing factory and it is the only rubber processing factory in OKU Regency. The research was carried out in February 2022. The research method used is a case study method where Lubuk Raja District is the only location for a rubber processing factory in OKU and is considered a case unit. The sampling method used is the multistage sampling method. From a population of 257 rubber farmers in Lubuk Raja District, Ogan Komering Ulu Regency, 120 farmers were sampled using the Slovin formula. The research data collection was carried out using a questionnaire containing a list of questions addressed to rubber farmers in Lubuk Raja District, OKU Regency. The data used are primary data and secondary data. Based on the results of research and analysis conducted, it is certain that the factors that determine farmers selling their rubber to middlemen are bokar prices (X1), kinship relations (X2), and loan funds from middlemen (X3). Based on the results of the analysis, it is certain that the local government will continue to motivate farmers to try to sell their rubber at a rubber processing factory as a means of marketing rubber in OKU Regency.*

**Keywords:** *determination, rubber farmers, middleman*

**Abstrak**

Penduduk di Kabupaten Ogan Komering Ulu (OKU) rata-rata memiliki mata pencaharian sebagai petani karet. Fenomena yang muncul di Kabupaten OKU saat ini adalah masih banyaknya petani yang menjual karetnya pada tengkulak di sekitar pabrik karet. Hal ini tentu saja menarik untuk diteliti, karena didirikannya pabrik olah karet ditujukan untuk membantu petani karet dalam hal pemasaran karet. Permasalahan yang diangkat dalam penelitian ini adalah faktor-faktor apa saja yang mempengaruhi petani karet di sekitar pabrik, mayoritas menjual karetnya justru kepada tengkulak, bukan ke pabrik pengolahan karet. Penelitian ini bertujuan untuk menganalisis faktor-faktor yang mempengaruhi petani menjual karetnya kepada tengkulak di sekitar pabrik karet di Kabupaten OKU. Penelitian ini dilakukan di Kecamatan Lubuk Raja, dimana penentuan wilayah dilakukan secara sengaja (*Anto*) mengingat daerah ini merupakan sentra karet di Kabupaten OKU. Di Kecamatan Lubuk Raja terdapat pabrik pengolahan karet dan merupakan satu-satunya pabrik pengolahan karet di Kabupaten OKU. Penelitian dilaksanakan pada bulan Februari 2022. Metode penelitian yang digunakan adalah metode studi kasus dimana Kecamatan Lubuk Raja sebagai satu-satunya lokasi pabrik pengolahan karet di OKU dan dianggap sebagai satuan kasus. Metode penarikan contoh yang digunakan adalah metode multistage sampling atau pengambilan sampel bertahap. Dari sebanyak 257 populasi petani karet di Kecamatan Lubuk Raja Kabupaten Ogan Komering Ulu diambil sampelnya sebanyak 120 petani dengan menggunakan rumus Slovin. Pengumpulan data penelitian dilakukan menggunakan kuisioner berisi daftar pertanyaan yang ditujukan

pada petani karet di Kecamatan Lubuk Raja Kabupaten OKU. Data yang digunakan adalah data primer dan data sekunder. Berdasarkan hasil penelitian dan analisis yang dilakukan, dapat disimpulkan bahwa faktor-faktor yang menjadi determinan petani menjual karetnya kepada tengkulak adalah harga bokar (X1), hubungan kekerabatan (X2), dan dana pinjaman dari tengkulak (X3). Berdasarkan hasil analisis, dapat direkomendasikan kepada pemerintah daerah untuk tetap memotivasi petani karet agar berusaha menjual karetnya pada pabrik pengolahan karet sebagai sarana pemasaran karet di Kabupaten OKU.

**Kata kunci:**Determinan, petani karet, tengkulak

## 1. Introduction

South Sumatra is one of the smallholder rubber-producing provinces in Indonesia, where currently the plantation sub-sector, especially rubber, is still considered a strategic sub-sector and becomes the second advantage after food crops. Currently, the plantation area in South Sumatra is 2,899,146 hectares with a total production of 5,224,792 tons. Most of the plantation areas in South Sumatra are smallholder plantations with 6 leading commodities, including rubber, oil palm, coconut, coffee, cocoa and pepper (Plantation Office of South Sumatra Province, 2019). Ogan Komering Ulu Regency is one of the regencies in South Sumatra that produces a lot of natural rubber. The current condition of natural rubber is still facing various problems, including low productivity, low rubber quality, human resources and institutions that have not been well formed. Low productivity is caused by old plants, which are around the age of 25-50 years. The long trading system and the low quality of rubber also cause the price received by farmers to be low (Erni et al., 2012).

Ogan Komering Ulu Regency is the 8th rubber producer after East Ogan Komering Ulu with a land area of 71,542 ha and a production of 43,315 tons with a productivity of 0.6 tons/ha (Central Bureau of Statistics, 2020). The enforcement of the Regulation of Agriculture Minister and the Regulation of Trade Minister had not been done widely at smallholder level, because marketing agencies still accepted the low quality raw rubber material produced by farmers. The problems of rubber processing and marketing that caused the low quality of raw rubber material and the low of farmers' income were still found in South Sumatera. Serious attention was needed to solve the problems (Syarifita et al., 2013, 2016).

Gapkindo South Sumatra (2020), stated that the decline in rubber prices was due to weak quality standards or net weight sold by farmers. This is none other than the condition of the farmers themselves who lack knowledge of the quality standards of rubber sold to factories so that special skills are needed from the level of collectors to sorters. From the rubber price before covid pandemic, recorded at the factory unloading level, it reached 17,840 rupiah with a net weight condition of 93 percent, while 90 percent reached a price of 17,265 rupiah and a net weight condition of 85 percent at a price of 16,306 rupiah. On the other hand, the price of rubber at the farmer's unloading level for 80 percent net weight reached 15,346 rupiah and 75 percent net weight, namely 14,387 rupiah, while for 70 percent it reached 13,428 rupiah. and the lowest price with a net weight of 60 percent reached 11,510 rupiah. The decline in rubber prices was due to weak quality standards or net weight sold by farmers. This is none other than the condition of the farmers themselves who lack knowledge of the quality standards of rubber sold to factories so that special skills are needed from the level of collectors to sorters (Seli et al., 2020).

In Ogan Komering Ulu Regency, there is a PTPN VII rubber factory which should be able to buy smallholder rubber products at international standard prices. But the phenomenon that occurs is that farmers still selling their rubber to the middleman. If the factory can buy smallholder rubber at a higher price, rubber farmers should be greatly helped but what happens in the field is just the opposite. Currently the price of rubber is around Rp.12,000/kilogram when purchased by the factory, while middlemen buy at the farm level only around Rp. 8000 to

Rp. 7000/kilogram. Many rubber farmers who are actually around the factory still sell rubber to middlemen for various reasons, including not having many conditions that must be met, sales are made faster and cashed out faster. Various reasons put forward by farmers so that this phenomenon becomes interesting to study further regarding the factors that influence farmers who are around rubber processing plants selling their rubber to middlemen.

The same phenomenon with this research stated by (Saputra, 2018) in his research on socio-economic factors that influence farmers to sell bokar through auction markets and non-auction markets in Bungo Regency. The results of the study which were analyzed using the Linear Probability Model (LPM) showed that socio-economic factors that influenced farmers' decisions to sell bokar to the auction and non-auction markets were experience, farmers' attachment to traders and price. Of the three factors, the attachment of farmers to traders has the most probability that influences farmers' decisions in selling their bokar. In line with the research also stated the same thing in their research on the factors that affect rubber prices in the auction and non-auction markets in Muaro Jambi Regency . Based on the research results, in the rubber auction market, farmers are judged based on their quality. The drier the rubber, the better the quality of the rubber and the more expensive the price. On the other hand, selling rubber through village middlemen, the price of rubber is determined by the middlemen. This will certainly cause a difference in the price received by rubber farmers who sell rubber through the auction market compared to rubber farmers who sell rubber through village middlemen. Basically, the rubber auction market was formed in order to control the selling price of rubber from farmers. The aim is to establish a transparent information system and a vehicle for establishing favorable prices for rubber farmers.

The gap of this research showed that there were another factor influence the rubber farmer sell their rubber to the middleman. So, the problem in this study is what factors influence the farmers around the rubber factory sell their rubber to the middlemen. This study aims to analyze the factors that influence farmers selling their rubber to the middlemen around rubber factory at Ogan Komering Ulu Regency, South Sumatera Province. The dependent variable in this research is the farmer decision to sell the rubber to middlemen and the factors suspected of influencing the decision of rubber farmers to sell their rubber to middlemen, are rubber price variable (X1), the relationship (X2), and loan fund (X3).

## **2. Literature Review**

### ***2.1 Farmer's Decision***

The farmer's decision to sell rubber to middlemen even though he lives near a rubber processing factory is, of course, based on several considerations. Every decision made by farmers related to their farming, of course, has different reasons. Several factors are the reason that apart from getting cash in a short time, middlemen do not have special requirements to buy farmers' rubber. Basically the decision made by farmers to sell their farming products to middlemen or to factories undergoes several processes that farmers go through. Decision theory is basically a theory about how humans choose choices among randomly available choices in order to achieve the goals to be achieved. This also happens to farmer households, with the goal to be achieved is in the form of higher income from several farming options that will be cultivated on the land they have.

Decision theory is divided into two types, namely: (1) normative decision theory, which is a theory that contains about how decisions should be made based on the principle of rationality, and (2) descriptive decision theory, which is a theory about how decisions are factually made. In farming households, the decision to switch businesses does not occur suddenly, but through several stages of the process. Condorcet divides the decision-making process into three stages,

which include: (1) the process of proposing the basic principles for decision making, (2) the process of eliminating the available options into the most likely option, and (3) the process of selecting from the various options available. and implement those options.

The decision-making stages then develop into two major groups. There are two models of decision making, namely sequential models of decision making and non-sequential models. The sequential decision-making model assumes that the stages of decision-making occur in a coherent and linear manner, while the non-sequential model assumes that the stages of decision-making do not occur linearly but circularly. At each stage of decision-making, farmer households can be open or closed in determining decision choices. An individual who is open, will not limit choices and often add new options outside of existing choices. On the other hand, an individual who is closed will not add to the existing choices. In real life the possibility of open options is more common. Several opinions and theories that emerged related to the decision-making process were put forward by (Iskandar et al., 2017). Herbert A. Simon divides the decision-making process into 3 phases, including: 1) Intelligence phase, which is information for situations that allow for decision making, 2) Design phase, is a planning activity in decision making which consists of problem identification and problem formulation, 3) Selection phase, is an alternative or action selection phase (Herbert, A. Simon., 1982).

Simon developed a decision model called a descriptive model. Simon developed this model based on the assumption that a decision maker is someone who sees a problem rationally in order to come up with a workable solution based on the information he knows. This model can be used to make decisions that are incompletely informed due to limited time, money, or people and the fact that people will not always choose the best decision. In line with the opinion of (Iskandar et al., 2017) the decision making according to Richard I. Levin undergoes a longer process. The decision-making process according to Richard I. Levin (2010), consists of 6 stages including:

1. Observation stage  
This stage is a process activity of field visits, conferences, observations, and research that can be used as supporting information and data
2. Analysis and problem recognition stage  
This stage can be in the form of the activity of determining the use of the process, determining the purpose, and determining the boundaries that can be a clear guideline or guide to find the solution needed.
3. Model development stage  
This stage can be in the form of process activities or decision-making tools between mathematical model relationships, research that can be the output of processes or models that function under predetermined environmental constraints.
4. Choose the appropriate input data  
This stage can be in the form of internal and external data, facts, opinions, as well as computer bank data that can be an adequate input process output to work on and test the model used.
5. Accountable formulation and testing stage  
This stage is in the form of testing, limitations, and evidence that can be a solution for achieving goals.
6. The stage of implementing the solution  
This stage is in the form of discussion of behavior, throwing ideas, involving management, as well as explanations that become management's understanding to support the operating model in the longer term.

## ***2.1 Selling Rubber to Middlemen***

The farmer's decision to sell rubber to middlemen despite living near a rubber processing factory, of course, goes through several stages and certain considerations. Every decision made by farmers related to their farming has different reasons. Several factors are the reason, besides getting cash quickly, middlemen do not have special requirements to buy farmers' rubber, besides that farmers often get cash loans and can be cashed out in a short time and do not require special requirements. This is what makes many farmers who decide to sell their rubber to middlemen even though they live in the vicinity of the rubber processing factory. Intermediary traders actually play an important role in the marketing of agricultural products (Antoni & Tokuda, 2019).

Agricultural production areas are usually spread out in every place so that it is the middlemen who play a role in collecting agricultural products, sorting them and transporting them to then sell them to the city. The middleman also has a role in protecting the farmers' products at harvest so that they have a positive function in stabilizing prices. At harvest time, this helps to prevent falling prices by selling them to consumers.

In several studies (Ningsih & Harahap, 2017), the existence of middlemen is not liked by the community because middlemen tend to give low prices to farmers' crops because they want to get the highest profit from farmers. This is because the middlemen consider their business to have a short or temporary duration so that on average the middlemen pursue high profits from every transaction made with farmers. In addition, the price received by farmers has been reduced by the loan money that must be repaid by farmers, which on average is given to farmers before harvest. In several other studies, the assumption that farmers' conditions will be better and safer if middlemen can be eradicated is not entirely true. Some of the middlemen are actually villagers themselves and are very close to the farmers. In fact, many villagers feel helped by the existence of middlemen and they do not have special requirements to buy farmers' crops. In-depth research on the rural economy places the function of the government in a reasonable place to invite farmers to sell rubber at factory standards and at reasonable prices, without being able to prohibit the operations of middlemen around the rubber factory.

Several studies related to research, among others, were revealed by Ardhiyan, S (2018) in his research on socio-economic factors that influence farmers to sell bokar through auction markets and non-auction markets in Bungo Regency. The results of the study which were analyzed using the Linear Probability Model (LPM) showed that socio-economic factors that influenced farmers' decisions to sell bokar to the auction and non-auction markets were experience, farmers' attachment to traders and price. Of the three factors, the attachment of farmers to traders has the most probability that influences farmers' decisions in selling their bokar. In line with the research also stated the same thing in their research on the factors that affect rubber prices in the auction and non-auction markets in Muaro Jambi Regency (Hasibuan et al., 2014). Based on the research results, in the rubber auction market, farmers are judged based on their quality. The drier the rubber, the better the quality of the rubber and the more expensive the price. On the other hand, selling rubber through village middlemen, the price of rubber is determined by the middlemen. This will certainly cause a difference in the price received by rubber farmers who sell rubber through the auction market compared to rubber farmers who sell rubber through village middlemen. Basically, the rubber auction market was formed in order to control the selling price of rubber from farmers. The aim is to establish a transparent information system and a vehicle for establishing favorable prices for rubber farmers.

(Purba et al., 2020) in their research on the comparison of the income of rubber farmers who sell bokar to the auction and non-auction markets in Sembawa District, Banyuasin Regency, South Sumatra Province stated that rubber smallholder revenue which sold raw rubber material (IDR

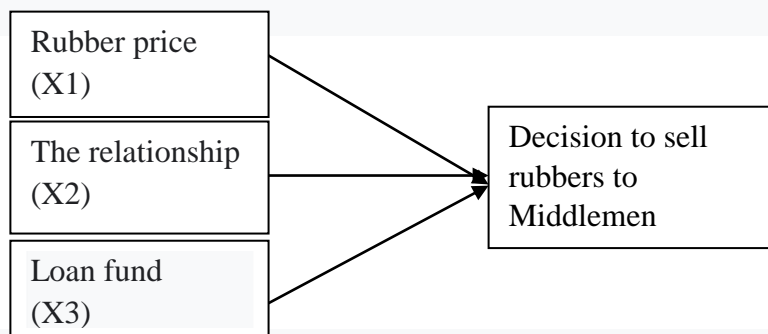
299,273.76) was higher than other which sold raw rubber material at non auction market (IDR 252.524). Moreover statistic analysis indicated that there was difference of rubber smallholder revenue at significant value as 0,00. If it was compared to significant level at 5%, the significant value was lower so it could be summarized that there was significant difference on rubber smallholder revenue. Several other studies on (Duangsathaporn et al., 2020) including the study of rubber in Thailand which stated that currently, the export situation of rubber wood products in Thailand is at a high risk of price and market competition. All relevant organization in Thailand hope to solve these problems sustainably. One of the important ways is to increase the value of rubber wood products and marketing channels for exporting to more countries besides China. This shows that marketing channels have a very important role, especially for farmers in determining prices. The decision to sell rubber to an intermediary trader or factory is a decision that depends on several considerations, including what happened to rubber farmers who were around a rubber processing factory but still decided to sell their rubber to an intermediary trader.

The hypotesis of this research can be stated as follows:

Allegedly the factors that influence the decision of farmers to sell their rubber to middlemen are rubber price variable (X1), the relationship (X2), and loan fund (X3).

The research approach model can be seen in Figure 1 below :

Figure 1. The research approach model



### 3. Research method

This research was conducted at Ogan Komering Ulu Regency, South Sumatera Province on February 2022, at Lubuk Raja District, where the determination of the area was carried out purposively. In Ogan Komering Ulu Regency there is the only one rubber processing factory, at Lubuk Raja District. The research method used is a case study method where Lubuk Raja District as the only location of a rubber processing factory in Ogan Komering Ulu Regency, is considered as a case unit. The sampling method used is multistage sampling or gradual sampling. The stepwise sampling method according to Hardani (2020) is a sampling technique by combining various existing probability sampling techniques. In this sampling technique, farmers are traced who sell their rubber to middlemen, even though they live near the location of the rubber processing factory. From the 257 population of rubber farmers in Lubuk Raja OKU, 120 farmers were taken as the samples.

The data collected in the form of primary data obtained from farmers. The data are then tabulated and processed using Logistics Regression analysis, with the following equation:

$$Y = \left[ \frac{p}{1-p} \right] = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Description :

Y = Decision to sell rubber to the middlemen

- P = Probability of farmers deciding to sell rubber, k ( 1= selling to middlemen, 0 = not selling to middleman)
- X1 = Rubber price (Rp/kg/month)
- X2 = Relationship {0= yes 1= none }
- X3 = Loan fund (Rp/month)
- A = Constant
- b1-b4 = Coefficient
- e = error

This study uses logistic regression analysis because it relates to farmers' decisions in marketing their rubber to middlemen or to rubber factories. The classical assumption test was carried out to ensure that the sample investigated free from interference multicollinearity, autocorrelation, heteroscedasticity and normality. But in this research that used only the multicollinearity test because it is in logistic regression there is already a goodness of fit test.

#### 4. Result and Discussion

The results from this research can be shown at Table 1. Table 1 concluded that the omnibus statistical test on data processing obtained a value of sig = .002 or less than 0.05, which means the decision rule is Ho rejected. From the results analysis, the value of Nagelkerke's R Square coefficient of determination is R<sup>2</sup> = 76.0, which means that the level of variation in the model can be explained jointly by the explanatory variables in the model, which is 84.7% while the rest is 15.3 %. It was explained by other variables not included in this model and obtained a Chi-square value of 4.759 with 0.05. The results of the partial test show that the significant variables are the rubber price variable (X1), the relationship (X2), and loan fund (X3), which can be seen in Table 1 below.

Table 1. Results of logistic regression analysis of rubber farmers' decision making in selling rubber

Variabel	B	S.E.	Wald	Df	Sig.	Exp(B)
1 <sup>a</sup> x1	65.028	48.708	1.782	1	*.002	4.81
X2	2.980	4.304	.479	1	** .089	3.53
X3	1.296	.819	2.508	1	*.013	3.14
Constant	251.916	187.257	1.810	1	.179	2.545E109

Source: Primary Data 2022

Description :

Chi-square = 4,759 with  $\alpha$  0,05

Nagelkerke R<sup>2</sup> = 76,0

\* = Sig at 0,05

\*\* = Sig at 0,10

The model of logistic regression from the analysis is :

$$Y = \left[ \frac{p}{1-p} \right] = 251.916 + 65.028 X1 + 2.980 X2 + 1.296 X3$$

Factors affecting the decision of farmers selling their rubber to the middlemen are :

## 1. Rubber Price (X1)

The results of the analysis show that the rubber price variable (X1) is 65.028% if it is analyzed to get a value of 4.81 with a positive direction on the opportunities for farmers to sell rubber in OKU Regency that if the price of rubber increases by 1% it will reduce the chances of farmers selling rubber to middlemen by 4.81%. Significantly significant effect at the level of level = 0.05 obtained a significant amount of 0.002. This indicates that the higher the price of rubber, the lower the chances of farmers selling their rubber to middlemen. This is also in line with the economic theory that the higher the price level, the less quantity of goods demanded and conversely the lower the price level, the greater the quantity of goods demanded. Regarding the research results, (Syarifa et al., 2013, 2016) stated that the price factor is a factor that has a direct impact on rubber farmers. The decline in rubber prices makes farmers' incomes fall and has an impact on farmers' investment abilities in the future. The price factor is also a factor of consideration for farmers to sell their rubber products. The choice of some farmers to sell rubber to middlemen even though it is below the factory price, farmers feel it is not difficult with the many provisions set by the rubber processing factory.

Furthermore, (Pamungkas & Siregar, 2021) in their research on the analysis of factors that affect the income of rubber farmers in Hayup Village, Haruai District, Tabalong Regency stated that price is a very decisive factor for farmers in deciding to sell their products. Price is a determining factor of income received by farmers. The high price of rubber processing materials (bokar) is determined by the quality of the farmers' bokar. The drier the bokar, the higher the price received by farmers. This is stated by (Syarifa et al., 2016) in their research on evaluating the processing and quality of rubber processing materials (bokar) at the rubber farmer level in South Sumatra. The survey results showed that the enforcement of the Regulation of Agriculture Minister and the Regulation of Trade Minister had not been done widely at smallholder level, because marketing agencies still accepted the low quality raw rubber material produced by farmers. The problems of rubber processing and marketing that caused the low quality of raw rubber material and the low of farmers' income were still found in Musi Rawas and Lubuk Linggau Regencies. Serious attention was needed to solve the problems.

## 2. Relationship (X2)

The results of the analysis show that the relationship variable (X2) is 2.980% if combined it gets a value of 3.53 with a positive direction on the opportunities for farmers to sell rubber because of the closeness of relatives. This shows that if selling rubber increases by 1%, it will increase the opportunity for farmers to sell rubber due to the relationship factor by 3.51%. Significantly no significant effect at the level of = 0.10 obtained a significance of 0.089. This indicates that the easier it is for farmers to sell their rubber due to the familiarity factor, the higher the chances of farmers selling their rubber. In several studies, the existence of middlemen is not liked by the community because middlemen tend to give low prices to farmers' crops because they want to get the highest profit from farmers. This is because the middlemen consider their business to have a short or temporary duration so that on average the middlemen pursue high profits from every transaction made with farmers. In addition, the price received by farmers has been reduced by the loan money that must be repaid by farmers, which on average is given to farmers before harvest. In several other studies, the assumption that farmers' conditions will be better and safer if middlemen can be eradicated is not entirely true.

Some of the middlemen are actually villagers themselves and are very close to the farmers. In fact, many villagers feel helped by the existence of middlemen and they do not have special requirements to buy farmers' crops. In-depth research on the rural economy places the function of the government in a reasonable place to invite farmers to sell rubber at factory standards and



at reasonable prices, without being able to prohibit the operations of middlemen around the rubber factory.

The farmer's decision to sell rubber to middlemen despite living near a rubber processing factory, of course, goes through several stages and certain considerations. Every decision made by farmers related to their farming has different reasons (Siswandi et al., 2018). Several factors are the reason, besides getting cash quickly, middlemen do not have special requirements to buy farmers' rubber, besides that farmers often get cash loans and can be cashed out in a short time and do not require special requirements. This is what makes many farmers who decide to sell their rubber to middlemen even though they live in the vicinity of the rubber processing factory. Similar with this research, (Hasibuan et al., 2014) stated that the attachment factor and family relationship between farmers and middlemen made most of the farmers sell their rubber to middlemen. Furthermore, Ardhiyan, S (2018) stated that the decision of farmers to sell their rubber to the auction and non-auction markets is a factor of experience, the attachment of farmers to collectors, and the price.

Furthermore, the relationship between individual characteristics in rubber marketing is revealed by (Kurniawan et al., 2021) where there is a relationship between the involvement of individual farmers in absorbing information about rubber marketing channels. The results showed that the individual characteristics of farmers that had a relationship with the communication network indicators were age, education, family dependents, farming experience, land area, cosmopolitan, intensity of extension, accuracy of extension channels and number of sources of information.

### **3. Loan fund (X3)**

The results of the analysis show that the loan fund variable from the middleman (X3) is 1.296% if it is analyzed to get a value of 3.14 with a positive direction on the opportunities for farmers to borrow costs from the middleman. This shows that if farmers borrow costs up by 1%, it will increase farmers' chances of selling their rubber to middlemen by 3.14%. Significantly, this has no significant effect at the level of  $\alpha = 0.05$ , which is significant at 0.013. This indicates that many rubber farmers borrow money from middlemen in OKU Regency, the higher the rubber farmers borrow from middlemen, the smaller the chance for farmers to sell their bokar to the factory. Farming capital costs that can be obtained by farmers through loans to traders are one of the reasons why there are still many farmers who sell their rubber to traders even though their residence is around the location of the rubber processing factory. Loan money for farming capital is obtained without difficult conditions, and is returned when farmers sell their rubber products in future production. This convenience makes many farmers willing to sell their rubber products even though the price is slightly lower than the factory price.

The results of the analysis are in line with research conducted by (Iskandar et al., 2017) which states that several factors that influence the decision of farmers to sell rubber to collectors are the rubber farmers' need for business capital in the form of money that can be borrowed through collectors or middlemen with percentage of 66.67%. Other factors that affect farmers are knowledge of marketing institutions, land area, quality of bokar and trust in existing marketing institutions. Similar research results were also stated by (Purba et al., 2020) in their research on the comparison of the income of rubber farmers who sell bokar to the auction and non-auction markets in Sembawa District, Banyuasin Regency, South Sumatra Province stated that rubber smallholder revenue which sold raw rubber material (IDR 299,273.76) was higher than other which sold raw rubber material at non auction market (IDR 252.524). Moreover statistic analysis indicated that there was difference of rubber smallholder revenue at significant value as 0,00. If it was compared to significant level at 5%, the significant value was lower so it could be summarized that there was significant difference on rubber smallholder revenue.

## 5. Conclusion

Based on the results of the research conducted, it can be concluded that the factors that significantly affect the decision of farmers around the rubber factory, selling their rubber to middlemen are rubber prices (X1), relationship (X2), and loan fund (X3). Based on the results of the analysis, it can be recommended to the local government to motivate rubber farmers to use factories to sell their rubber. It is recommended for the next research to include other variables that are thought to have an effect on the decision of farmers to sell their rubber to middlemen.

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