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DECISION-MAKING PATTERNS AND FAMILY LABOR CONTRIBUTION ON OIL PALM FARMING: A CASE STUDY IN PONDOK KELAPA SUB-DISTRICT, CENTRAL BENGKULU REGENCY

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ABSTRAK

Pengambilan keputusan merupakan titik akhir pemikiran masalah yang sedang dihadapi oleh suami dan istri terkait dengan aktivitas usahatani kelapa sawit yang mereka kelola. Selain pola pengambilan keputusan, usahatani kelapa sawit juga bisa dilihat dari segi kontribusi tenaga kerja dalam keluarga dan tenaga kerja luar keluarga. Pengambilan keputusan dan kontribusi kedua tenaga kerja ini memberikan peranan penting dalam keberhasilan usahatani kelapa sawit. Adapun tujuan dari penelitan ini: (1) mengidentifikasi pola pengambilan yang dilakukan oleh suami dan istri pada aktivitas usahatani kelapa sawit (2) Untuk menganalisa besarnya kontribusi tenaga kerja dalam (suami, istri, anak), kontribusi tenaga kerja luar keluarga (pria, wanita). Penelitian ini menggunakan metode analisis deskriptif dan uraian verbal, sebanyak 441 populasi petani kelapa sawit, 90 responden dipilih secara acak berdasarkan teori Roscoe, menggunakan analisis data pola pengambilan keputusan menurut Sajogyo dan kontribusi tenaga kerja. Penelitian ini dilaksanakan di Kecamatan Pondok Kelapa pada tanggal 25 Maret – 25 April 2019. Hasil penelitian menunjukan, pengambilan keputusan usahatani kelapa sawit didominasi keputusan suami sendiri dan lebih banyak dilaksanakan suami sendiri. Hasil analisis kontribusi tenaga kerja dalam keluarga suami lebih tinggi kontribusinya dibanding istri dan anak. Sedangkan analisis kontribusi tenaga kerja luar keluarga didapatkan hasil kontribusi pria lebih besar dibanding wanita. Sedangkan untuk kontribusi tenaga kerja secara keseluruhan tenaga kerja dalam keluarga memiliki kontribusi yang paling besar dibanding tenaga kerja luar keluarga.
Kata kunci: *kelapa sawit, pengambilan keputusan, kontribusi tenaga kerja*

ABSTRACT

Decision making is the final point of thinking about the problems being faced by husband and wife related to the oil palm farming activities they manage. In addition to decision making patterns, oil palm farming can also be seen in terms of the contribution of labor in the family and workers outside the family. Decision making and the contribution of these two workers provide an important role in the success of oil palm farmingThe objectives of this research are: (1) to examine the pattern of taking conducted by husband and wife in oil palm farming activities (2) to calculate the amount of the contribution of labor in the husband (husband, wife, children), contribution of workers outside the family (men, women). This study uses descriptive analysis methods and verbal descriptions, as many as 441 populations of oil palm farmers, 90 respondents were randomly selected based on Roscoe's theory, using data analysis of decision-making patterns according to Sajogyo and labor contributions. This research was conducted in the District of Pondok Kelapa on March 25 to April 25 2019. The results showed, palm oil farming decision making was dominated by the decisions of their own husbands and more carried out by their own husbands. The results of the analysis of the contribution of labor in the husband's family's contribution is higher than his wife and children. While the analysis of the contribution of workers outside the family obtained the contribution of men is greater than women. As

for the contribution of the workforce as a whole workforce in the family has the largest contribution compared to workers outside the family.
Keywords: *farming, decision making pattern, labor, palm oil*

INTRODUCTION

Oil palm plantations are one of the production organizations carried out by oil palm farmers to process natural production and labor factors, to obtain satisfactory results both in terms of quality and quantity, farming requires good processing carried out by the farmers themselves.

In Indonesia, oil palm is a prime commodity and the area for oil palm plantations continues to grow. Nowadays, smallholder plantations have developed rapidly. The development of smallholder plantation is one of the government's goals because in addition to become a source of foreign exchange, it is also to expand job opportunities and at the same time improve community welfare. Oil palm plantations, which were originally developed only in North Sumatra and Special Region of Aceh is currently have developed in several provinces, one of which is Bengkulu province.

Central Bengkulu Regency is a district that has the largest number of oil palm plants. The plants in Central Bengkulu are plants that have produced and are still in the productive plant age. One of the sub-districts in Central Bengkulu regency which has a wide land area and high production is Pondok Kelapa Sub-district. Pondok Kelapa sub-district has an area of 765/ha which is in fifth place with a production of 2,865/ton which is in fourth place based on the Statistics Indonesia of Central Bengkulu Province (2018).

In 2017, oil palm was the prime commodity in Pondok Kelapa Sub-district with a production of 2,865 tons and 892 farmers. This number is high compared to the production and the number of farmers in other commodities or types of crops according to the Statistics Indonesia of Central Bengkulu Province (2018).

The pattern of decision making in oil palm farming is determined by decision making on oil palm farming activities in terms of maintenance such as determining (time, type, dose, fertilizers, and pesticides used), harvesting (determining harvest time), to marketing. From this decision-making, it can be seen whose decision is more dominant, whether the wife or the husband or it could be equal between the decisions of husband and wife. Further, in its implementation related to oil palm farming activities, it can be done or carried out by husbands, wives, children, and workers outside the family (external labor).

In oil palm farming, apart from husbands, wives are also involved in working in the oil palm plantations. The wives are usually involved in working activities such as cutting, fertilizing, stacking palm fronds, and collecting oil palm loose fruit. However, during the decision-making process, many wives were not involved in making decisions. Since wives are also involved in working on oil palm plantations, they also need to have the same knowledge as their husbands regarding the dosage of fertilizers and the dosage of pesticides, proper harvest time, and determining where to sell. If one day the husband is unable to make a decision, such as illness or other reasons, the wife can replace the husband to make a decision. Besides, the wife's knowledge about timing and dosage of fertilizer is also minimal. The wife should also be equipped with knowledge about this thing so that the wife can help her husband in contributing some ideas during the decision-making process.

The decision-making pattern that exists in oil palm farming is used to determine the decisions made by husbands and wives. This decision includes maintenance activities such as determining the time to spray, cutting, pruning the fronds, and harvesting also requires the right time. In addition to determining the time, the

fertilization dose and the dosage of pesticides must also be considered according to the proper guidelines. One of the successes of oil palm farming is determined by the cohesiveness of the decision-making patterns carried out by husbands and wives. This decision-making pattern is strongly related to farming because, with the right and harmonious decision-making between husband and wife, it can make farming more successful, especially oil palm farming.

Furthermore, related to the decision-making pattern of husband and wife in the household, according to Sajogyo (1984) in Sudarta (2017) that the pattern of decision making is carried out based on five classifications among others are (1) decision made by the wife herself, (2) the decision made by the husband and wife but dominant wife, (3) decision made by husband and wife but dominant husband, (4) equal decision making between husband and wife, and (5) decision made by the husband alone. The classification of decision making according to Sajogyo on the decision-making pattern of female farmers in vegetable farming, Sudarta (2017) Gender Decision Making of Farmer Households on Subak System Paddy Rice Cultivation in Urban Areas, and Samosir (2017) on women labor in oil palm plantation.

Oil palm plantation workers in Pondok Kelapa subdistrict consist of two workers, workers within the family (internal labor), and workers outside the family (external labor). Each of these workers contributes to working on farming activities from maintenance to harvesting. Furthermore, the contribution of labor has also been researched by Sukiyono and Sriyoto (2005) regarding the contribution of workers in household members of oil palm workers. This study aims to (1) determine the patterns of decision making by husbands and wives in oil palm farming activities (2) to calculate the amount of contribution of internal labor or within the family (husband, wife, children), and contribution of external labor or outside the family (male, female).

RESEARCH METHODS

This research was conducted in three villages, namely the village of Abu Sakim, Talang Boseng, and Kembang Ayun, Pondok Kelapa subdistrict, Central Bengkulu Regency. This location was determined purposively based on the following consideration: (1) most residents of the three villages are oil palm farmers (2) Pondok Kelapa subdistrict is in the fifth place of land area and the fourth place in production which is the highest compared to the other subdistricts in Central Bengkulu Regency.

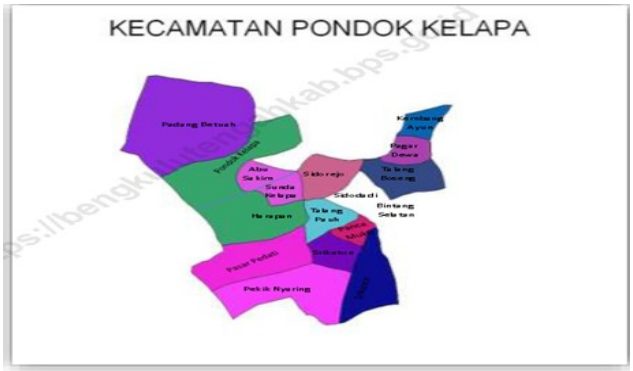

Figure 1. Pondok Kelapa District Map
Source: Statistics Indonesia of Central Bengkulu Province (2018)

The population in this study was farmers who have oil palm plantations, where in this study area the total population of oil palm farmers was 441 families. In this study, 90 farmers were chosen as respondents who were randomly selected using the opinion of Sukiyono (2018). Further, these respondents were interviewed using a questionnaire that had been prepared in advance.

Data Analysis Method

Decision Making Patterns of Oil Palm Farming

The data analysis technique for decision-making patterns uses descriptive analysis and verbal descriptions. According to Sajogyo (1984) in Sudarta (2017), there are five classifications of decision making patterns in oil palm farming including (1) decisions made by husband, (2) decisions

made by the wife, (3) decisions made equally by husband and wife, (4) decisions made by husband and wife but the wife is dominant, (5) decisions made by husband and wife but the husband is dominant.

Labor Contribution Analysis

a Contribution of Labor within the Family

To find out the labor contribution in the family of oil palm farming, it is calculated using the formula according to Sukiyono and Sriyoto (2005), which is as follows:

$$KTKi = \frac{TKDi}{\sum TKDi} x\ 100\ \% KTKi = \frac{TKDi}{\sum TKDi} x\ 100\ \%$$

Where:

KTKi labor contribution in the family to i (HOK/Month); TKD the number of workers in the family to i devoted to oil palm plantations owned by households (HOK/Month); ∑TKD total labor in the family devoted to household oil palm plantations; i husband, wife, children.

b. Contribution of Labor outside the Family

To find out the contribution of labor outside the family of oil palm farming, it is calculated using a modified formula according to Sukiyono and Sriyoto (2005), which is as follows:

$$KTKi = \frac{TKDi}{\sum TKDi} x\ 100\ \% KTKi = \frac{TKDi}{\sum TKDi} x\ 100\ \%$$

Where:

KTKi of labor contributions outside the family i (HOK / Month); TKL The number of labor outside the family to i devoted to oil palm plantations owned by households (HOK/Month); ∑TKL total labor outside the family devoted to household oil palm plantations; i female, male.

RESULTS AND DISCUSSION

Decision Making Patterns and Implementing Decision Making Patterns

One of the main variables in the farming system is the pattern of decision-making within the farmer's household regarding the goals and how to achieve them with existing resources including the type and quality of the plants being cultivated, as well as the techniques and strategies applied. How a farmer household makes decisions on the farm management depends on the characteristics of the household concerned, such as the number of men, women, children; age, health conditions, abilities, desires, needs, farming experience, knowledge, and skills as well as relationships between household members. Decision making is also the final point of thinking about the problem faced and is the beginning of implementing an activity as the mastery of a problem being considered. The family is the smallest unit of organization in society that cannot be separated from problems that must be resolved. To solve the problem, a strategy is needed ranging from deliberation to decision-making between husband and wife in the household. Implementers of decision-making patterns are oil palm farmers who carry out farming activities from maintenance to harvesting, which consists of workers within the family (husband, wife, children) and labor outside the family (men, women). For more details regarding the pattern of decision making and implementing the pattern of decision making can be seen in Table 1.

From Table 1, the decision-making pattern and implementation of the oil palm farming decision-making pattern can be presented using the following analysis of the discussion:

Maintenance (Determining the Time, Type, Dosage of Fertilizers and Pesticides)

a) Spraying the Grass

The pattern of decision making in the activity of determining the time to spray grass, the type, and the dosage of pesticides used was more dominantly made by the husband as many as 44 people with a percentage of 48.89%. The research results are not consistent with Syarif and Zainuddin (2017) on vegetable farming, which states that female farmers play a role in making decisions about the types of pesticides used because they have followed the extension process, they adopt and make natural pesticides using tobacco.

Table 1. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming

Farming Activities	Decision Making Pattern					Decision Making Executor				
						In Family			Outside the Family	
	SS	IS	SIS	SD	ID	H	W	C	M	F
Maintenance (determining the time, type, dosage of fertilizers and pesticides)										
Spraying the grass	44 (48,89 %)	4 (4,44 %)	2 (2,22 %)	38 (42,22%)	2 (2,22 %)	75 (54,35%)	0	11 (7,97 %)	52 (37,68%)	0
Cutting shrubs	38 (42,22 %)	4 (4,44 %)	20 (22,22%)	21 (23,33%)	7 (7,28 %)	74 (41,34%)	54 (30,17%)	10 (5,59 %)	36 (20,11%)	5 (2,79 %)
Fertilization	42 (46,67 %)	4 (4,44 %)	5 (5,56 %)	37 (41,11%)	2 (2,22 %)	75 (40,98%)	56 (30,60%)	11 (6,01)	35 (19,13%)	6 (3,28 %)
Pruning fronds	41 (45,56 %)	5 (5,56 %)	17 (18,89%)	25 (27,78%)	2 (2,22 %)	75 (52,82%)	0	12 (8,45 %)	55 (38,73%)	0
Stacking the oil palm fronds	39 (43,33 %)	6 (6,67 %)	19 (21,11%)	20 (22,22%)	6 (6,67 %)	75 (38,27%)	51 (26,02%)	13 (6,63 %)	56 (28,57%)	1 (0,51 %)
Harvesting (timing)										
Palm fruit cutting	42 (46,67 %)	4 (4,44 %)	14 (15,56%)	28 (31,11%)	2 (2,22 %)	71 (51,08%)	0	12 (8,63)	56 (40,29%)	0
Picking loose palm fruit	38 (42,22 %)	8 (8,89 %)	13 (14,44%)	21 (23,33%)	10 (11,11%)	25 (22,52%)	61 (54,95%)	3 (2,70 %)	20 (18,02%)	2 (1,80 %)
Transport the fresh fruit to the collection point	41 (45,56 %)	4 (4,44 %)	15 (16,67%)	28 (31,11%)	2 (2,22 %)	54 (44,63%)	0	11 (9,09 %)	56 (46,28%)	0
Marketing										
Determining where to sell	42 (46,67 %)	4 (4,44 %)	14 (15,56%)	27 (30%)	3 (3,33 %)	0	0	0	0	0
Average	**40,78 (45,31 %)**	**4,78 (5,31 %)**	**13,22 (14,69%)**	**27 ,22 (30,25%)**	**4 (4,44 %)**	**65,5 (43,25%)**	**27,75 (17,72)**	**10,38 (6,88 %)**	**45,75 (31,10%)**	**1,75 (1,05 %)**

Source: Primary Data Processed, 2019

Information: SS (Only husband), IS (Only wife), SIS (Husband and wife are equal), SD (Dominant by husband), ID (Dominant by wife), H (Husband), W (Wife), C (Children), M (Male), F (Female)

The activity of spraying grass is only done by husbands, children, and male external labor (outside the family), but the husbands tend to do the work by themselves

Table 2. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming in Grass Spraying

Farming Activities	Decision Making Pattern		Decision Making Executor				
			In family			Outside the Family	
			Husband	Wife	Children	Male	Female
Spray the grass	SS	44 (48,89%)	37 (26,81%)	0,00	3 (2,17%)	27 (19,57%)	0,00
	IS	4 (4,44%)	0.00	0,00	1 (0,72%)	3 (2,17%)	0,00
	SIS	2 (2,22%)	2 (1,45%)	0,00	1 (0,72%)	1 (0,72%)	0,00
	SD	38 (42,22%)	35 (25,36%)	0,00	6 (4,35%)	20 (14,49%)	0,00
	ID	2 (2,22%)	1 (0,72%)	0,00	0,00	1 (0,72%)	0,00
Total			**75 (54,35%)**	**0,00**	**11 (7,97%)**	**52 (37,68%)**	**0,00**

Source: Primary Data Processed, 2019

as many as 75 people or 54.35%. Wives and female external labor (outside the family) were not involved in spraying grass. This is because the activity of spraying grass is a heavy job and the husband or man is considered to have a better understanding of the activity of spraying grass. The results of this study are not consistent with a study conducted by Ariesta (2017). In this study, it was found that women who work manual labor such as spraying grass, must bring a sprayer that contains 15 liters of poison liquid.

b) Nebas (Cutting Shrubs)

The pattern of decision making in the activity of determining the time for nebas (cutting shrubs), namely cleaning the piringan (a circle area under a certain diameter of palm oil) or circle weeding to clearing the gawangan (an area that is used as the area of

Table 3. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming in Cutting Shrubs

Farming Activities	Decision Making Pattern		Decision Making Executor				
			In Family			Outside the Family	
			Husband	Wife	Children	Male	Female
Nebas (Cutting Shrubs)	SS	38 (42,22%)	31 (17,32%)	16 (8,94%)	3 (1,68%)	21 (11,73%)	1 (0,56%)
	IS	4 (4,44%)	0,00	2 (1,12%)	1 (0,56%)	3 (1,68%)	0,00
	SIS	20 (22,22%	20 (11,17%)	16 (8,94%)	1 (0,56%)	4 (2,23%)	1 (0,56%)
	SD	21 (23,33%)	17 (9,50%)	13 (7,26%)	5 (2,79%)	5 (2,79%)	2 (1,12%)
	ID	7 (7,78%)	6 (3,35%)	7 (3,91%)	0,00	3 (1,68%)	1 (0,56%)
Total			**74 (41,34%)**	**54 (30,17%)**	**10 (5,59%)**	**36 (20,11%)**	**5 (2,79%)**

Source: Primary Data Processed, 2019

wood and shrubs) or inter-row weeding, was more dominant made by the husband as many as 38 people or 42.22%. In this activity, the wife is mostly only involved in the work process but they are not involved in making decisions. Even though many wives of oil palm farmers make decisions but only a few of them, mostly husbands who make the decisions. The implementation of nebas (cutting shrubs) is carried out by husbands, wives, children, and male and female external workers, however, the husband tends to do the work alone as many as 74 people or 41.34.

In the activity of nebas, wives and female external workers (women workers outside the family members) are involved in cleaning the piringan (circle weeding) and clearing the gawangan (inter-row weeding) because this job is not heavy and can be done casually by them. This research is not in line with Ichwa et al. (2017) that the structure of the working group in cutting the branches (tebas ranting) and clearing the palm trees is mostly carried out by women (housewives) as many as 250 female workers out of 394 total workers.

c) Fertilization

From the research results, it was found that the pattern of decision making in the activity of determining the time of fertilization, the type of fertilizer, and the dose of fertilizer used was more likely the husbands themselves that decided many as 42 people or 46.67%. In the fertilization activity, the husbands' decisions are more dominant, this happens in the same way as the activity of nebas carried out by the wives because the wives are only involved in the work process. Also, the wives are considered to have little understanding about the timing, the type, and the dose of fertilizer. According to Siradjuddin (2015), fertilization is an important factor to increase productivity and the quality of production. Furthermore, according to Walsen (2008), determining the timing of fertilization also has a good effect on the growth and development of all components of the plant.

Fertilization is done by husbands, wives, children labor, and male and female external workers but the husbands tend to do the work alone of 75 people or 40.98%. In this case, wives and women are also involved in fertilizing activity. Similar to nebas activity (cutting shrubs), fertilizing activity is also considered a non-heavy job for women.

Table 4. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming in Fertilization

Farming Activities	Decision Making Pattern		Decision Making Executor				
			In Family			Outside the Family	
			Husband	Wife	Children	Male	Female
Fertilization	SS	42 (46,67%)	35 (19,13%)	20 (10,93%)	3 (1,64%)	23 (12,57%)	2 (1,09%)
	IS	4 (4,44%)	0.00	2 (1,09%)	1 (0,55%)	3 (1,64%)	0,00
	SIS	5 (5,56%)	5 (2,73)	3 (1,64%)	1 (0,55%)	1 (0,55%)	0,00
	SD	37 (41,11%)	34 (18,58%)	29 (15,85%)	6 (3,28%)	7 (3,83%)	3 (1,64%)
	ID	2 (2,22%)	1 (0,55%)	2 (1,09%)	0,00	1 (0,55%)	1 (0,55%)
Total			**75 (40,98%)**	**56 (30,60%)**	**11 (6,01%)**	**35 (19,13%)**	**6 (3,28%)**

Source: Primary Data Processed, 2019

Table 5. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming in Prunning Fronds

Farming Activities	Decision Making Pattern		Decision Making Executor				
			In Family			Outside the Family	
			Husband	Wife	Children	Male	Female
Prunning fronds	SS	41 (45,56%)	34 (23,94%)	0,00	3 (2,11%)	27 (19,01%)	0,00
	IS	5 (5,56%)	1 (0,70%)	0,00	1 (0,70%)	3 (2,11%)	0,00
	SIS	17 (18,89%)	17 (11,97%)	0,00	2 (1,41%)	9 (6,34%)	0,00
	SD	25 (27,78%)	22 (15,49%)	0,00	6 (4,23%)	15 (10,56%)	0,00
	ID	2 (2,22%)	1 (0,70%)	0,00	0,00	1 (0,70%)	0,00
Total			**75 (52,82%)**	**0,00**	**12 (8,45%)**	**55 (38,73%)**	**0,00**

Source: Primary Data Processed, 2019

d) Pruning Fronds

The pattern of decision making in determining the time to cut the fronds was more likely that the husbands themselves who decided as many as 41 people or 45.56%. In the pruning fronds activity, most of the farmer's wives were also not involved in making decisions because the wives' participation in making decisions to pruning the frond is still limited. The wives can involve in decision making with certain conditions, such as when the husband died, divorce, and illness. Thus, the wives can decide by themselves to determine the time to prune the fronds.

Meanwhile, the activity of pruning the fronds is carried out by husbands, children, and male external labor but the husbands are more likely to do it by themselves as many as 75 people or 52.82%. In this case, wives and women workers are not involved because this work is considered to be heavy and dangerous due to the age of oil palm trees has reached dozens of years and the size of oil palm trees is giant.

e) Stacking the Oil Palm Fronds

The activity of stacking the oil palm fronds aims to avoid the fronds scattered around the piringan which can interfere with the activity of the plantation, such as fertilizing. From the research results, the pattern of decision making in determining the time to stacking the palm fronds tend to be done by husbands as many as 39 people or 43.33%. The wives only become the executor in farming activities, one of which is in the activity of stacking the palm fronds, but in the decision-making process, husbands as the head of the family are more dominant to make decisions.

The activity of stacking the palm fronds was carried out by husbands, wives, children, and male and female external workers but the husbands tend to do the work by themselves as many as 75 people or 38.27%. The wives and female external workers are involved in the activity of stacking the palm fronds because this activity is also considered a non-heavy job and less risky for women.

Harvesting (Determine the Time)

a) Palm Fruit Cutting (Dodos and Egrek)

From the research results, it was found that the pattern of decision making in the activity of determining the time for push-cutting with a chisel-like tool (dodos) or pull-cutting with a sickle-like tool (egrek) to

Table 6. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming in Stacking the Oil Palm Fronds

Farming Activities	Decision Making Pattern		Decision Making Executor				
			In Family			Outside the Family	
			Husband	Wife	Children	Male	Female
Stacking the oil palm fronds	SS	39 (43,33%)	32 (16,33%)	16 (8,16%)	3 (1,53%)	25 (12,76%)	1 (0,51%)
	IS	6 (6,67%)	2 (1,02%)	4 (2,04%)	1 (0,51%)	4 (2,04%)	0,00
	SIS	19 (21,11%)	19 (9,69%)	15 (7,65%)	2 (1,02%)	11 (5,61%)	0,00
	SD	20 (22,22%)	17 (8,67%)	11 (5,61%)	6 (3,06%)	12 (6,12%)	0,00
	ID	6 (6,67%)	5 (2,55%)	5 (2,55%)	1 (0,51%)	4 (2,04%)	0,00
Total			**75 (38,27%)**	**51 (26,02%)**	**13 (6,63%)**	**56 (28,57%)**	**1 (0,51%)**

Source: Primary Data Processed, 2019

harvest the fresh fruit bunch of the palm tends to be made by the husbands themselves as many as 42 or 46.67%. It is because the husband has better knowledge including from the aspect of knowledge and the mindset of doing the activity of push-cutting with a chisel-like tool (dodos) or pull-cutting with a sickle-like tool (egrek) to harvest the fresh fruit bunch of the palm. According to Trismiaty et al. (2008) workers must have good knowledge about the criteria of ready-to-harvest fresh fruit bunch of the oil palm. Knowing when to harvest and how to harvest properly.

The activity of push-cutting with a chisel-like tool (dodos) was carried out by husbands, children, and male external workers, but the husbands tend to do the work

Table 7. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming in Palm Fruit Cutting

Farming Activities	Decision Making Pattern		Decision Making Executor				
			In Family			Outside the Family	
			Husband	Wife	Children	Male	Female
Palm fruit cutting	SS	42 (46,67%)	32 (23,02%)	0,00	4 (2,88%)	27 (19,42%)	0,00
	IS	4 (4,44%)	0,00	0,00	1 (0,72%)	3 (2,16%)	0,00
	SIS	14 (15,56%)	14 (10,07%)	0,00	1 (0,72%)	8 (5,76%)	0,00
	SD	28 (31,11%)	24 (17,27%)	0,00	6 (4,32%)	17 (12,23%)	0,00
	ID	2 (2,22%)	1 (0,72%)	0,00	0,00	1 (0,72%)	0,00
Total			**71 (51,08%)**	**0,00**	**12 (8,63%)**	**56 (40,29%)**	**0,00**

Source: Primary Data Processed, 2019

by themselves as many as 71 or 51.08%. Wives and female external workers are not involved in this work because push-cutting with a chisel-like tool (dodos) is considered a heavy job so women can't do it.

b) Picking Loose Palm Fruit

The pattern of decision making in the activity of determining the time to collect oil palm loose fruits tends to be made by the husbands themselves who decided as many as 38 people or 42.22%, this is because the wives are more dominant in making decisions related to domestic activities. The results of this study are not in line with the research conducted by Samosir (2017). The results of the study show that decision making in the family of women loose fruits collectors when it is related to domestic activities, most decision-making based on husband and wife, is equivalent to an average of 21%. This proves that despite the wife has worked to provide additional income in the family, the wife is not dominant in making decisions.

The activity of collecting oil palm loose fruits are carried out by husbands, wives, children, and male and female external workers, but more dominantly carried out by the members in the family (internal labor), namely the wives as many as 61 people or 54.95%. This is because picking up oil palm loose fruit is an easy and non-heavy type of job and thereby many wives of oil palm farmers are involved in this work.

c) Transport the Fresh Fruit Bunches to the Collection Point

From the results of the study, it was found that the pattern of decision making in the activity of determining the time to transport the fresh fruit bunches to the collection point tends to be made by the husbands themselves who decided as many as 41 people or 45.56%. The experience and knowledge of the wives of oil palm farmers in this area are still low so that the husband's involvement in decision-making in this activity is needed. Therefore, the husband's decision is more dominant than the wife.

The activity of transporting fresh fruit bunches to the collection point is carried out by husbands, boys, and external male workers, but it is mostly carried out by the external male workers as many as 56 people or 46.28%. The number of male external workers are more widely used because they are stronger than other workers. As for the implementation, they use handcarts or wheelbarrows and motorbikes as a means of transportation. According to Marviana and

Table 8. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming in Picking Loose Palm Fruit

Farming Activities	Decision Making Pattern		Decision Making Executor				
			In Family			Outside the Family	
			Husband	Wife	Children	Male	Female
Picking loose palm fruit	SS	38 (42,22%)	11 (9,91%)	19 (17,12%)	0,00	12 (10,81%)	1 (0,90%)
	IS	8 (8,89%)	3 (2,70%)	6 (5,41%)	0,00	2 (1,80%)	0,00
	SIS	13 (14,44%)	1 (0,90%)	13 (11,71%)	0,00	0,00	0,00
	SD	21 (23,33%)	9 (8,11%)	13 (11,71%)	0,00	6 (5,41%)	0,00
	ID	10 (11,11%)	1 (0,90%)	10 (9,01%)	3 (2,70%)	0,00	1 (0,90%)
Total			**25 (22,52%)**	**61 (54,95%)**	**3 (2,70%)**	**20 (18,02%)**	**2 (1,80%)**

Source: Primary Data Processed, 2019

Table 9. Decision Making Pattern and Implementation of Decision Making Activities for Oil Palm Farming in Transport the Fresh Fruit Bunches to the Collection Point

Farming Activities	Decision Making Pattern		Decision Making Executor				
			In Family			Outside the Family	
			Husband	Wife	Children	Male	Female
Transport the fresh fruit bunches to the collection point	SS	41 (45,56%)	23 (19,01%)	0,00	4 (3,31%)	27 (22,31%)	0,00
	IS	4 (4,44%)	0,00	0,00	1 (0,83%)	3 (2,48%)	0,00
	SIS	15 (16,67%)	13 (10,74%)	0,00	1 (0,83%)	8 (6,61%)	0,00
	SD	28 (31,11%)	17 (14,05%)	0,00	5 (4,13%)	17 (14,05%)	0,00
	ID	2 (2,22%)	1 (0,83%)	0,00	0,00	1 (0,83%)	0,00
Total			**54 (44,63%)**	**0,00**	**11 (9,09%)**	**56 (46,28%)**	**0,00**

Source: Primary Data Processed, 2019

Indrawati (2014), transporting oil palm is generally done by men. If this work is carried out by women, it will affect their health.

Marketing

This marketing category is related to determining the place to sell because in the research location there are several shops so they have to choose one shop. Besides, several respondents sell it directly to the factory. In this case, for oil palm farmers, the decision-making process was still dominantly decided by the husband as many as 42 people or 46.67%. This study is not in line with Harahap et al. (2018) that the role of husband and wife in decision making is dominantly equal related to selecting marketing channels for salak farmers.

Based on Table 1, overall, from maintenance to marketing activities, the decision-making is dominated by the husbands as many as 45.31%. This is because the husbands have received information, explanations, and description of everything related to farming, so they tend to decide everything related to farming without consulting their wives. The participation and involvement of the wives in decision making are still very limited as many as 5.31%. This is because they only decided with certain conditions such as when the husband dies, divorced, and illness, so the decision in terms of farming activities from maintenance-marketing is determined by the wives themselves.

The decision making of husband and wife is equivalent to 14.69% and dominated by wives by 4.44%. The results show that husbands are still involving their wives in the decision-making process by discussing together and respecting their wives' opinions in terms of decision-making patterns for oil

Table 10. Decision Making Patterns on Palm Oil Marketing Activity

Farming Activities	Decision Making Pattern	
Determine where to sell	IS	4 (4,44%)
	SIS	14 (15,56%)
	SD	27 (30%)
	ID	3 (3,33%)

Source: Primary Data Processed, 2019

palm farming activities. According to research by Surambo et al. (2010), findings in the field show that there have been various forms of injustice experienced by women, such as not being involved in the decision-making process, to the double burden experienced by women workers in oil palm plantation. Likewise with the research results of Yusmaniar et al (2015). They revealed that the decision-making process in oil palm farmers' household are dominantly decided by the wife which means that the wife has an important role in reproductive activities, such as cooking, taking care of children, etc.

The implementation of the decision-making pattern of farming activities as a whole, from maintenance to harvesting, is dominated by husband by 43.25% and male external labor by 31.10%. Husbands occupy the 3rd position with a percentage of 17.72% higher than the percentage of decision making for children 6.88% and women 1.05%. In its implementation, husbands and men indeed dominate because they are more involved in doing all the oil palm farming activities from maintenance to harvesting. In contrast, wives, farmer's children, and female external workers can only do half of the activity.

In addition, the husband has the highest percentage because many oil palm farmers in the research area have 4 hectares of land that can be worked on by themselves. In this case, the husband is more dominant in doing it and then assisted by the family labor including the wife and children of the oil palm farmers themselves. Therefore, it does not require labor outside the family (external labor). It would be different if the land area is more than 4 hectares, of course, it requires workers outside the family (external labor).

Labor Contribution

The labor contribution is the amount of work contribution devoted to the oil palm plantations owned by households to the total workforce of oil palm farming calculated in percent (%). The contribution of labor in the family (internal labor), the contribution of farm labor outside the family (external labor), the contribution of the total workforce of oil palm farming can be seen in Table 11.

Table 11. Contribution of Oil Palm Farming Labor

Contribution of Oil Palm Farming Labor	HOK/Month	Percentage (%)
Contribution of Family Labor		
Husband	608,92	66,08
Wife	232,08	25,19
Children	80,42	8,73
Total	921,42	100,00
Contribution of Outside Family Labor		
Male	894,58	98,44
Female	14,17	1,56
Total	908,75	100,00
Overall Contribution		
Family labor	921,42	50,35
Outside family labor	908,75	49,65
Total	1830,17	100,00

Source: Primary Data Processed, 2019

From Table 11, it can be seen that the results of the analysis of the contribution of labor in the family (internal labor) to the total use of labor in the family for activities in oil palm farming revealed that the husbands have more contribution by 66.08%, which is far compared to the contribution of the wives by 25,19%, and the contribution of children labor by 8.73%.

Furthermore, the reason that causes the wife's contribution is greater than the contribution of child labor is that on average many farmer's children are still school age and choose to work part-time outside the oil palm plantations. Besides, wives spent more of their time on domestic activities such as cooking, washing, taking care of children, etc. This is in line with the results of a study conducted by Sukiyono and Sriyoto (2005), the results show that the husband's contribution is greater than the other workers, the contribution of husbands is 52.3%, wives is 16.0%, children is 26.2%, and other household members is 5.6 %. The husband's contribution is bigger because of the general understanding that the role of the husband in plantation activities is the main workforce, while the wives, children, and other household members are more to be as assistance. Female labor contribution is only 1.56%. The contribution of male labor is greater than the contribution of their female counterpart is because male labor is more needed, especially for activities in terms of maintenance such as spraying, pruning fronds, and for harvesting activities, such as push-cutting with a chisel-like tool (dodos) and transporting FFB to the collection point. Besides, the activity in oil palm plantations is a relatively heavy job and therefore female workers are not much involved.

As for the activities carried out by female workers, such as cutting, collecting palm fronds, and collecting oil palm loose fruits. Similar to the wives labor, female external workers (outside the family members) also spent more of their time on domestic activities. In line with the research of Norfahmi et al. (2017) on rice farming, the results showed that male HOK was greater, which was 58.71 HOK/year, while women only 18.35 HOK/year. This shows that the intensity of male labor is greater in farming because they have a great responsibility for meeting the needs of household members. Meanwhile, women devote more of their time to household activities.

a) Labor Contribution From the Family (Internal Labor)

Based on Table 11, it shows that the contribution of labor in the family (internal labor) has a higher contribution which is 50.35% compared to the contribution of workers outside the family (external labor) which is 49.65%. This research is in line with a study by Mawardati (2016) that the labor used in smallholder oil palm farming is 27.78 ha/year, most of this labor comes from within the farmer's family themselves and only a small portion comes from outside the family.

The average number of family members is more than 2 family members. The total number of family members who can work in the oil palm fields is 830 people consisting of workers within the family (internal labor) and 687 workers outside the family (external labor). Jobs can be handled outside the family, such as spraying grass, fertilizing, and harvesting activities, such as push-cutting with a chisel-like tool (dodos) and transporting fresh fruit bunches. Many factors influence the employment of workers outside the family, namely because the land is too large, having other jobs besides being oil palm farmers, which makes these farmers unable to spend much time managing their farms.

According to the information from the farmer during the interview, he stated that the money spent on paying labor outside the family was not proportional to the yields obtained. This means that if more labor outside the family is used, it will increase the costs that must be incurred by farmers. Thus, oil palm farmers use more labor within the family than using labor outside the family.

b) Labor Contribution Outside the Family (External Labor)

From table 11, it can be seen that the contribution of labor outside the family (external labor) in oil palm farming has a larger contribution. The contribution of male labor is 98.44%, it is far from the contribution of female workers which is only 1.56%. The contribution of male labor is greater than the contribution of women is because male labor is more needed, especially for activities in terms of maintenance such as spraying, pruning fronds, and harvesting activities, such as push-cutting with a chisel-like tool (dodos), transporting FFB to the collection point. Besides, the activity in oil palm plantations is a relatively heavy job and therefore female workers are not much involved.

As for the activities carried out by female workers, such as cutting, collecting palm fronds, and collecting oil palm loose fruits. Similar to the wives labor, female external workers (outside the family members) also spent more of their time on domestic activities. In line with the research of Norfahmi et al. (2017) on rice farming, the results showed that male HOK was greater, which was 58.71 HOK/year, while women only 18.35 HOK/year. This shows that the intensity of male labor is greater in farming because they have a great responsibility for meeting the needs of household members. Meanwhile, women devote more of their time to household activities.

c) Overall Labor Contribution

Based on Table 11, it shows that the contribution of labor in the family (internal labor) has a higher contribution which is 50.35% compared to the contribution of workers outside the family (external labor) which is 49.65%. This study is consistent with a study conducted by Mawardati (2016) that the labor used in smallholder oil palm farming is 27.78 ha/year, most of this labor comes from within the farmer's family themselves and only a small portion comes from outside the family.

According to the information from the farmer during the interview, he stated that the money spent on paying labor outside the family was not proportional to the yields obtained. This means that if more labor outside the family is used, it will increase the costs that must be incurred by farmers. Therefore, oil palm farmers use more labor within the family (internal labor) than using labor outside the family (external labor).

CONCLUSIONS

The decision-making pattern of oil palm farming from maintenance, harvesting to marketing activities was dominated by the decision of the husbands by 40.78 or 45.31%, and for the implementation of the decision-making pattern was also more dominant carried out by the husbands by 65.50 or 43.25%.

The percentage of labor contribution in the husband's family has the largest contribution among labor in other families by 66.08%, respectively. Meanwhile, for the percentage of contribution from the workers outside the family, the percentage for the contribution of male workers was greater by 98.44%. Overall, the contribution of labor in the family is mostly used at 50.35%.

Based on the results of the discussion that has been explained above, there is a need for the implications (involvement) of extension on oil palm farming intended for husbands and wives. The aim is that the husband can involve his wife more in making decisions according to the wife's type of work, such as in the activities of nebas (clearing and cleaning, fertilizing, stacking fronds, and picking up oil palm loose fruits. In addition, with the extension program, it is hoped that the wife will have good knowledge about oil palm farming so that the wife has the same opportunity when making decisions. Looking at the labor contribution opportunity in the family which is quite significant, it also requires an extension program aimed at husbands, wives, and children. The objective is to increase the knowledge and skills of the

labor in the family in obtaining agricultural information. The extension program of oil palm farming also aims to provide understanding to family members, the importance of cultivating oil palm, and to be more focused on cultivating oil palm.

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