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Research Article

Female Farmworkers Participation in the Cultivation of Madurese Local Maize at Pakaan Laok Village

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ABSTRACT

The role of women in the agricultural sector in developing countries is essential. Female farmworkers have dominated the workforce in corn cultivation; nevertheless, it is challenging to apply dissemination materials on corn planting as these workers still use their agricultural insight from generation to generation. This study aimed to determine: 1) the characteristics of female farmworkers who participate in local corn cultivation, 2) the level of women's participation in local corn cultivation activities, and 3) the factors that influence women's participation in local corn cultivation.The research lsite is in Pakaan Laok Village, which was determined by purposive technique. Sample-taking was by simple random sampling. Methods of data analysis used descriptive analysis and multiple linear regression. The results showed that most female farmworkers' age ranges between 40-54 years, did not attend school, and the income ranges between Rp. 0-667,000 per planting season, land ownership status is individual ownership, and their economic motivation is to help their husbands. The variables of education, farm income, and economic motivation partially affect women's participation. In contrast, age and land ownership do not partially affect the participation rate of female farmworkers. The level of participation of women farmers at the planning stage is in a low category, and at the implementation, the stage is in a very high category.

INTRODUCTION

Indonesia's population increases every year; based on the population census data in 2020, Indonesia's total population is 270.20 million, which has increased by 32.56 million from the 2010 population census data or an increase of 3.26 million annually (BPS, 2021). The increase in population is accompanied by an increase in the needs of life, one of which is the need for food, as human being depends on food as one of the needs (Syofya, 2018; Naza & Yuningsih, 2021). The agricultural sector's role is necessary to meet these food needs. Agriculture in Indonesia consists of wetland agriculture (paddy fields) and dryland agriculture (fields). Madura is one of Indonesia's regions dominated by dry land (Rahmah, 2020). Madura Island is a reasonably good area for corn development (Firdaus & Fauziyah, 2020). Corn is an exceptionally strategic crop; thus, corn becomes a commodity of high economic value (Alizah & Rum, 2020). The majority of Madurese people consume local corn

as a staple food due to its delicious and savoury taste; whereas its higher price and longer shelf life make the Madurese prefer local corn and cultivation compared to hybrid maize (Amzeri, 2018; Suprapti & Moninthofa, 2018; dan Sukma, 2017). Bangkalan Regency has the second-largest maize production in Madura, 145,062 tons (BPS Jawa Timur, 2020). One of the sub-districts that has become the highest maize producer in Bangkalan Regency for two consecutive years (Dinper, 2021).

Galis sub-district is an area that only has dry land, where dry land commodities become its common crops, so the majority of people in the area are involved in corn farming (BPP Kecamatan Galis, 2021). Labour is essential in the process of cultivation or farming. Agriculture is related to men's heavy work, but women's role is currently considered necessary in cultivation activities (Hernanda et al., 2015). The role of women is significant in village development, especially in the agricultural sector, as an asset and a potential (Kurniawanto & Anggraini, 2019). The role of women in agriculture is no longer as a helper for men; nowadays, they have an essential role that they can do independently even though agricultural activities are pretty heavy and rough for women (Rifa'i & Mardiansjah, 2018 and Sumuding, 2020). Agriculture is indeed identified with work or is dominated by men, but some farming activities may be dominated by women, for example, rice planting (Sholeh et al., 2020). Almost the entire activities of maize cultivation become women's responsibility; thus, it is necessary to increase knowledge, skills, and opportunities for women to increase labor efficiency (Endang et al., 2014). Female-farmworker is a profession in agriculture done by women and does not look at their educational background.

Participation is the involvement of a person or group of people in a development involving planning, implementation, and evaluation stages, where the related person is participating in utilizing and enjoying the results of the development itself (Normina, 2016). Female farmworkers' existence is a form of women's participation in agricultural activities. In maize farming, women have a complex role comprising planning, implementation, and evaluation (Andriyani et al., 2019). Farm women who decide to participate in corn farming activities have various characteristics. According to Ginting, (2017); Sumarno & Hiola, (2017); Norfahmi et al., (2017); and Prasetyowati & Endang, (2017), the characteristics of female farmworkers that allegedly influence their decision to participate in farming activities are age, formal education, farming acceptance, land ownership, and economic motivation. Few female farmworkers in developing countries who participate in agricultural activities are poor, and at the same time, poor women will decide to participate in agricultural activities. Increasing the productivity of female farmworkers can be an effort to improve agriculture as a whole by increasing productivity, empowering women, and alleviating poverty. Doss (2018) argues that women farmers participate in efforts to develop and increase agricultural production in developing countries.

The participation of female farmworkers in maize cultivation and its characteristics are not supported by dissemination program that involves women farmers as the program often only involves male farmers (Pogoy et al., 2016). Recently, the government formed the Women Farmers Group (KWT) to increase female farmworkers' knowledge and skills. The only KWT in Galis District is located in Pakaan Laok village. Through this KWT, the extension workers deliver dissemination materials about maize cultivation to maximize productivity. However, the community's ancestor knowledge prevents the application of the material provided by the dissemination officers (Ali et al., 2018). That way, agricultural productivity becomes ineffective and inefficient, so farm income cannot improve household welfare. This result can cause female farmworkers to work not to their maximum extent and not have orientation in conducting the work.

From the problems above, this study aims to determine (1) the characteristics of women farmers who participate in local corn farming, (2) the level of women's participation in local corn farming activities, and (3) factors that influence women's participation in local corn farming.

METHOD

This study uses qualitative and quantitative approaches with a descriptive method. The main subjects of this research are women farmers in Pakaan Laok Village, Galis District, Bangkalan Regency. The research location was determined purposively. The location is appointed because Galis Sub-district is the highest maize producer in Bangkalan Regency, Pakaan Laok Village is the village with the most members of farmer groups, and the village has the only Women Farmers Group (KWT) in Galis District. The type of data used in this study is primary data obtained directly from respondents by conducting observations, interviews, and distributing questionnaires. The sampling technique used is a simple random sampling method. This study's population is female farmers involved in local corn farming. The population of women farmers in the study area is 100 people, and the number of samples taken is 35% of the total population, comprising 35 people done randomly (Nasution, 2017).

The first objective of this study was to analyze using descriptive analysis to determine the characteristics of local maize plantation female farmworkers. The characteristics of female farmworkers include age, education, farm income, land ownership, and economic motivation.

The second objective of this study was analyzed using descriptive analysis in the form of an interval scale to determine the level of women's participation in local corn farming. The level of participation of female farmworkers in local maize cultivation consists of four criteria. Determination of these criteria is carried out using the interval formula, which is as follows:

$$\text{Scale range} = \frac{Highest\ scale - Lowest\ scale}{Number\ of\ Scales}$$

Thus, the calculation of the scale range to determine the category of measuring the participation of female farmworkers in local corn farming is as follows:

$$\text{Scale range} = \frac{4-1}{4}$$
$$= 0.75$$

Thus, the criteria for measuring the participation of female farmworkers in local maize farming are as follows: 1) low (1.00-1.75); 2) moderate (1.76-2.50); 3) high (2.51-3.25); and 4) very high (3.26-4.00) (Mulyaningsih et al., 2018; Yusmaniar et al., 2015)

The stages in local maize plantation include three activities: the planning stage, which consists of determining the type of commodity to be planted, plan-making of the plantation production facilities, budgeting plan for the growing season, labor estimation-making for the growing season, and purchasing plantation production facility; implementation stage which consists of land preparation, maize cultivating, fertilization, weeding, pest and disease control, harvesting, drying, and shelling; as well as the evaluation stage which consists of evaluation stage which consists of ongoing monitoring during maize cultivation and checking maize yields (Ginting, 2017; Fay et al., 2018; Anggraini et al., 2020).

The third objective in this study was analyzed using multiple linear regression to determine the factors that influence women's participation in local maize cultivation. The Best Linear Unbiased Estimation (BLUE) applied in this study requires the classical assumption tests that include normality, heteroscedasticity, multicollinearity, and linearity. The form of the regression equation with five independent variables is as follows (Oktavia & Suprapti, 2020):

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 D_1 + \beta_5 D_2 + \varepsilon$$

Where Y is the participation rate of female farmworkers, α is a constant, β_1, β_2, β_3, β_4, dan β_5 is the regression coefficient, X_1 is age, X_2 is education, X_3 is farm income, D_1 is land ownership (value 1 for land). own property and 0 for land that is not owned), D2 is economic motivation (value 1 is motivation to help husband and 0 is motivation to support the family) and is the error term.

The hypothesis of the F test in this study is H1 = There is a significant simultaneous effect between the independent variables (age, education, farm income, land ownership, and economic motivation) on the level of women's participation in local maize cultivation.

The hypothesis of the t-test in this study is H1 = There is a partially significant effect between the independent variables (age, education, farm income, land ownership, or economic motivation) on the level of women's participation in local maize cultivation.

RESULTS AND DISCUSSION

Characteristics of Female Farmworkers Participating in Local Maize Cultivation

The characteristics of female farmworkers in this study include age, education, farm income, land ownership, and economic motivation. At the same time, the categorization or description of the characteristics of respondents is adjusted to the data obtained during data collection. The data on the characteristics of female farmworkers are in Table 1.

Table. 1 Characteristics of Female Farmworkers Participating in Local Maize Cultivation

Characteristics	Explanation	Frequency	Percentage (%)
Age	24-39	4	11.43
	40-54	16	45.71
	55-69	15	42.86
Education	Did not attend school	29	82.86
	Elementary school graduates	5	14.29
	Senior high school graduates	1	2.86
Income from farmland	0-667.000	31	88.57
	668.000-1.334.000	3	8.57
	1.335.000-2.000.000	1	2.86
Land Ownership	Individual ownership	33	94.29
	Other people's ownership	2	5.71
Economic motivation	Helping husband in earning income	29	8.86
	Affording life	6	17.14

Source: Processed Primary Data (2021)

Education is related to one's competence. The higher the education is, the more knowledgeable and skillful a person has. Handayanti & Gunawan (2021); Khairunnisa et al. (2021) which mention that a person is more knowledgeable due to a high level of education. This knowledge and skills impact the mindset of female farmworkers; with a good mindset, they can be more rational. Knowledge, skills, and progress in rational thinking patterns that are getting better allow an increase in the quality of work and one's productivity. The higher the education, the more economic opportunities can be captured. Regarding education, most female farmworkers in Pakaan Laok Village do not go to school, and many are illiterate and cannot speak the national language. Such a situation results in the limited work choice for women in Pakaan Laok Village, causing them to cultivate based on ancient knowledge; besides that, it complicates the process of understanding for female farmworkers in accepting new knowledge, which dissemination workers usually convey.

Most female farmworkers in Pakaan Laok Village range from 40 to 54 years, the productive age range according to the Ministry of Health/ Kemenkes (2021). The dictionary of the Ministry of Health of the Republic of Indonesia data and information center states that the productive age is in the range of 15 to 64 years. This measure is not absolute because some people have certain limitations that make them unable to work or carry out productive activities. The average age of female farmers in Pakaan Laok Village is 52 years. These results indicate that elderly women farmers are the key to implementing local maize cultivation in Pakaan Laok Village; theoretically, their productivity is low, but they still work in local corn farming.

Farming revenue is the sale of corn harvests obtained by the community. The average farm income obtained by farmers is Rp. 349,143. The selling price of dry-shelled corn in Pakaan Laok Village is IDR 4,000/kg. Community yields range from 10-500 kg. The farmers used to sell their crops to the Galis Market because no brokers could accommodate them. Most of the people of Pakaan Laok Village run maize cultivation on their land. In contrast, people who do not own land usually rent property from their relatives or work on other people's land to become farm laborers. This statement is in line with Zuhirsyan (2021); Umyati et al. (2022), who state that the narrowness of agricultural land (arable) is due to the inheritance system. On average, community-owned land is an inheritance given to them by their parents. Regarding the economic motivation of female farmworkers involved in maize cultivation in this study, they are the backbone of the family and help their husbands. Rural women generally do not have many job options. Low education and the demands of the household economy make women farmers participate in productive activities to earn income. Farm women who have husbands with low incomes, their economic motivation in participating in local corn farming activities is to help their husbands to increase their income. The motivation for single female farmworkers and those whose status is widows and who have no family members have the economic motivation to afford their families.

Female Farmworker Participation Level in the Local Maize Cultivation

The participation of female farmworkers in local maize cultivation occurs in several stages, namely planning, implementation, and evaluation. Based on the analysis that has been carried out, the results of the participation level of female farmworkers in local maize cultivation can be seen in Table 2.

Table 2. an Analysis on the Female Farmworker Participation in the Local Maize Cultivation

Stage	Activity	Average Score	Explanation
Planning	Determining crop commodity for a particular planting term	3.34	Very high
	Planning the production facility necessary for the cultivation activity	2.54	High
	Labour estimation for planting season	2.57	High
	Cultivation budgeting for one planting season	2.14	Moderate
	Purchasing of cultivation facility	1.94	Moderate
	Planning average	2.51	Low
Implementation	Land preparation	2.66	High
	Maize planting	3.46	Very high
	Plant fertilization	3.31	Very high
	Weeding	3.63	High
	Pest and disease control	3.14	High
	Harvesting	2.66	Very high
	Drying	3.66	Very high
	Shelling	3.69	Very high
	Implementation average	3.71	Very high
Evaluation	ongoing evaluation during maize cultivation	2.23	Moderate
	checking maize yields	2.77	High
	Evaluation average	2.50	Moderate
Total		47.46	
Female farmworker participation average		2.78	High

Source: Processed Primary Data (2021)

The very high category of female farmworkers' participation in local maize cultivation at the planning stage is planning the types of commodities to be planted. Agricultural land in Pakaan Laok Village is dry land that can only be planted with dry land commodities. The community grows not only maize but also peanuts, long beans, and cassava on their land. So, it is necessary to decide the type of plants for each planting season which women farmers usually do, and some of the respondents do the planning with other family members. The participation of female farmworkers in local corn farming at the planning stage, which is included in the high category, includes planning for the needs of production facilities for farming as well as making estimates of labor needs during the growing season. The study results differ from those of Arifin and Pranajaya (2022), stating that the participation of female farmworkers in lowland rice farming is low and only focuses on planting and maintaining sand post-harvest activities. However, that statement is in line with Suherman et al. (2022), which state that women farmers have high participation in farming. On average, female farmworkers in Pakaan Laok Village estimate the need for production facilities for their farming because this is also related to the planting area, they will work on in a planting season. On average, female farmworkers also plan for human resources needs because this is related to the completion time of the farm, the land they will work on, and the availability and ability to help complete the work on the farm. The participation of female farmworkers in local maize farming at the planning stage, which is included in the medium category, includes the activities of budgeting estimation of cost requirements during the growing season and preparing/purchasing farm production facilities. On average, female farmworkers do not provide cost estimation for the planting season because of their financial limitations, so they buy production facilities accordingly based on their financial situation. The purchase or preparation of farming production facilities is usually the responsibility of the male family members because the distance from the farm stalls is relatively far, and they need to use a motorized vehicle. The low participation of female farmworkers at the planning stage is because they do not have the knowledge and skills in planning and do not know the importance of planning in farming. So, the women farmers in Pakaan Laok Village are not too concerned with the planning stage; the most important thing for these people is that the land is not idle during the rainy season. These women only think about their current situation and leave the rest for later.

The very high level of female farmworkers' participation of female farmworkers in local maize cultivation at the implementation stage includes planting, fertilizing, harvesting, drying, and shelling activities. The study results differ from those of Arifin and Pranajaya (2022) in that the participation of female farmworkers in lowland rice cultivation is low and only focuses on planting, maintaining, and post-harvest activities. However, in line with Suherman et al. (2022), female farmworkers highly participate in farming. Planting is usually done with

land cultivation because farmers in Pakaan Laok Village still use livestock to cultivate the land and use traces of iron plate on cows to cultivate land as spacing. Processing is done by the men and women of the farmers following behind to plant the corn seeds. Female farmworkers and male family members carry out fertilization and weeding, but these have been considered more as women's duties from generation to generation. Generally, harvest time requires more labor than usual, causing female farmworkers to hire labor. If no other family members can prepare food for the farmers, then they do not go to the field because they prepare food at home to be brought to the field as lunch for the workers. This situation only occurs to some female farmworkers who have vast lands. At the same time, most female farmworkers in the research location do not have too large land, so on average, women farmers still participate in harvesting even though they have to make food for other workers. Drying and shelling are usually carried out in their respective homes so that female farmworkers still participate in these activities, including women who cannot go to the fields due to health problems. The participation of female farmworkers in local maize cultivation at the implementation stage, which is included in the high category includes land preparation, weeding, and pest and disease control. The level of participation of female farmworkers in these activities is lower due to several things. They only help prepare and sprinkle manure for the land preparation instead of being operators to plow the land. Although weeding is considered a woman's job, sometimes, these women who have livestock and large land areas usually prefer to hire labor for weeding. The women prefer to look for feed for their livestock rather than weeding weeds while looking for animal feed because the time required is relatively longer. Pest and disease control carried out by women farmers in Pakaan Laok Village does not use organic or chemical pesticides but removes plants that are attacked by pests and diseases for animal feed, but not all women farmers own livestock. Female farmworkers who do not have livestock will uproot plants attacked by pests and diseases and then throw them away; however, some women do not do anything when diseases attack their plants. The average level of participation of women farmers in local corn farming at the implementation stage is 3.71 and is included in the very high category. Most of the farming activities at the implementation stage are thoroughly carried out by women and on average female farmworkers participate in all farming activities at the implementation stage.

The high level of female farmworkers' participation in local maize cultivation at the evaluation stage is the activity to check the harvest. In contrast, the low level of female farmworkers' participation in local maize cultivation at the evaluation stage is the monitoring activity during the cultivation process. The study results differ from those of Arifin and Pranajaya (2022), stating that the female farmworkers' participation in lowland rice farming is low and only focuses on planting, maintaining, and post-harvest activities. However, Suherman et al. (2022) stated that female farmworkers have high participation in farming, which is in line with the finding that they averagely check their harvests not during the harvesting process but during the drying. This activity is because, during the harvest time, these women have minimal time; besides that, drying time is more flexible because it is done at home and is not rushed, meaning they will dry until the maize is completely dry. Only a few female farmworkers can supervise the farming activity because most do the cultivation process themselves despite the labor force they hire. Their busy activity causes them cannot conduct the supervision. The average level of participation of women farmers in local corn farming at the planning stage is 2.50 and is included in the moderate category.

The Factors Analysis Affecting Women Participation in the Local Maize Cultivation

It is strongly believed that women's participation in local maize cultivation is due to age, educational background, income received, land ownership, and economic motives. These factors were analyzed using the double-linear regression analysis method.

Table 3. Simultaneous Regression Test Result *(anova)*

Model	df	F-count	F-table	Sig	Decision
Regression	5	3.029	2.432	0.026[b]	Accepting H1
Residual	29				
Total	34				

Source: Processed Primary Data (2021)

Based on the results of the F test, Table 3 shows that the F count value is 3.029 and the F table value is 2.432 at an error rate of 5%, where the F count value > F table results in the acceptance of H1. In addition, the significance value of 0.026 <0.05; thus, H1 is accepted. From these results, it can be interpreted that the independent variables, including age, educational background, farm income, land ownership, and economic

motives, have a simultaneous effect on the level of women's participation in local maize cultivation in Pakaan Laok Village.

Table 4. Partial Regression Test Result *(coefficients)*

Variabel	Regression coefficient	t-count	t-table	Sig	Decision
Constant	1.996	2.857		0.008	
Age (X_1)	0.003	0.263		0.794	Accepting H0
Educational background (X_2)	-0.101	-2.737	2.032	0.010	Accepting H1
Income (X_3)	0.001	2.284		0.030	Accepting H1
Land ownership (D_1)	0.272	0.632		0.533	Accepting H0
Economic motivation (D_2)	0.588	2.204		0.036	Accepting H1

Source: Processed Primary Data (2021)

Based on the regression coeffiient test result on Table 4, the equation model of regression is as follow:

$$Y = 1.996 + 0.003X_1 – 0.101X_2 + 0.001X_3 + 0.272D_1 + 0.588D_2$$

Based on the results of the t-test, the variables of education, farming acceptance, and economic motivation partially affect the level of female workers in local maize cultivation. The variables of age and land ownership have no partial effect on the participation level of female workers in local maize cultivation.

The education variable negatively affects the participation level of women workers in local maize cultivation. A female worker with a high level of education will have more economic opportunities. This finding is because the level of education often indicates the measurement of a person's knowledge and skills. Therefore, women with higher education levels have a more varied choice of work. The jobs available for women farmers, especially in rural areas, are more limited; most professions for women farmers in rural areas are farmers. This finding is due to the limited knowledge and skills possessed, which are only accessible through formal education. Most female farmworkers who do not attend school comes from families with middle to lower economic levels; in the end, they will do any work to earn income to meet the lacking needs of their families. The above conditions are further supported by the fact that the only available job opportunities in the village are becoming farmers due to the vast agricultural area to be cultivated. The results of research by Arafah et al., (2020) show that women's education affects the income of rural business development because education can determine opportunities and types of work. The study supports the results of this study that women farmers with low education have limited job options, so they can only seize opportunities as farmers. Limited knowledge and skills make them more involved in farming.

The income variable received from the cultivation positively influences the participation level of female workers in local maize cultivation—income results from the multiplication of the production and the selling price of local maize per kilogram. Thus, the income will be higher in line with the production increase. Large production yields are inseparable from the planting area, which is in line with Peniarti et al., (2018), stating that farmers who own broader land will get more production results causing more income compared to those with more narrow land. Women workers with high incomes from agricultural activities generally have a large area of land, resulting in higher use of time and labor. Therefore, female farmworkers with high incomes from agricultural activities will participate more in local maize cultivation, as they want to catch the rainy season and hire a minimum labor force. Another reason female workers have high incomes is that they are more intensive in the cultivation process, causing a higher participation level for local maize cultivation, thus receiving a more optimal income. On the other hand, female farmworkers have low incomes due to their narrow farming land, causing them to receive low income from the cultivation activity. Consequently, they do not have maximum results orientation, which eventually causes a low participation level in local maize cultivation.

The variable of economic motivation has a partially positive effect on the level of participation of women farmers in local corn farming. These results align with the results of research by Prasetyowati & Endang, (2017) believe that motivation positively affects the role of farmer women in applying PTT corn technology because motivation is a driving force for someone to do something or achieve a goal. In this study, the more urgent the economic conditions of the women's families cause them be more motivated to participate in local maize cultivation so that the level of participation in local corn farming is also higher. The household's urgent needs are the economic motivation causing female farmworkers to participate in local maize cultivation. Furthermore, the economic motivation for these women to afford their families can be due to several reasons. The reasons include the passing away of their husbands, having no children, and taking care of their children so they cannot

get any professional jobs. Other reasons are remaining single, having to afford other family members due to their inability to work or to get any, and affording their mother or other siblings because they cannot work or get any job for some reasons. The economic motives for these women to help their husbands include the spouse's late age causing them not to get any job, having an uncertain job, low income, having children who are still in school, and having available land for planting. These conditions determine the urgency of the household's economic condition, which eventually affects female farmworkers' economic motivation.

The age variable has no partial effect on the participation level of women farmers in corn farming, in contrast to the results of Putriani et al., (2018) which show that age can negatively affect participation in water treatment. In this study, younger female farmworkers can have a high or low participation rate. They will have a low participation level for the following reasons: other family members are more competent in completing farming work, having babies or are still at school, having full support from their husbands to afford the family, and having another side job. Young women farmers will have a high participation level due to these reasons: coming from farming families, receiving agricultural knowledge and skill from a young age, trying to minimize labor costs, having low education, having no other skills besides farming, having no job opportunities other than farming, and marry a farmer and stay away from parents. Old female farmers will have a low participation level if they have enough money to hire labor, have health problems, get monthly payments from their children, and become traders. Old women farmers will have a high level of participation because of the following reasons: they do not have health problems that become obstacles in farming, do not have other skills besides farming, come from farming families who have been involved in farming since childhood, whose husbands are no longer working, and having agriculture as their primary profession.

The variable of land ownership has no partial effect on the participation level of women farmers in corn farming. Female farmworkers who own their land but whose participation levels are low occur because of the following reasons: they do not have farming skills, have skillful family members in the agricultural sector, are highly educated and work in addition to farming, have money to hire labor, and or the results of farming are not the primary source of income. Female farmworkers who own their land and have a high level of participation have the following reasons: they can work on their land, help hired labor to finish faster and save more on labor costs, do not have children under five or are still in school, farming results are the primary source of income, do not have money to hire labor, have low education, and or can only farm. Female farmworkers who do not own their land and whose participation level is low resulted from the following reasons: they do not have land ownership or do not have money to rent land. Further, female workers who do not own their land but have a high level of participation are the result of the following reasons: having skills in agriculture, working as farm laborers, and from agriculture-based families but do not have any land to cultivate. Although land ownership does not affect women's participation in local maize cultivation, according to Awami et al., (2018) land ownership can affect production.

CONCLUSION

Based on the study's results, it was found that: 1) most female farmworkers in the research site were of productive age; many were illiterate, receiving an average agricultural income of Rp. 667,000, having land ownership and their economic motivation to help their husbands; 2) The independent variables in the study have a simultaneous effect on the dependent variable; and 3) The variables of education, agricultural income, and economic motivation partially influence women's participation in local maize cultivation, while age and land ownership have no effect. From the research results above, it is necessary to have a program to increase knowledge and skills about the importance of farming management to achieve effective and efficient results. In addition, related institutions can also facilitate illiterate female farmworkers to understand and apply counseling materials, especially about farming activities at the implementation stage.

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