**RJOAS: Russian Journal of Agricultural and Socio-Economic Sciences**
ISSN 2226-1184 (Online) | Issue 3(147), March 2024

UDC 332

# THE ROLE OF EXTENSIONS AND PARTICIPATION OF WOMEN IN DRY LAND CORN FARMING OF JEROWARU DISTRICT, INDONESIA

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## ABSTRACT
This research aims to determine the role of extension workers and the participation of women farmers in dry land corn farming in Jerowaru sub-district, the factors that influence women's participation, and the relationship between the role of extension workers and the participation of women farmers. This research was conducted in two villages, namely Seriwe (Bukit) and Sekaroh (Tegal) using interview techniques (Survey). Structured interviews were conducted with 60 farmer respondents. Data were analyzed using descriptive statistics and the Pearson correlation test. Respondents' assessment of the role of agricultural instructors was in the no role category. The level of participation of women farmers in dry land corn farming is in the high category. Based on the results of the Pearson correlation test, it shows that in general there is no relationship or correlation between the characteristics of respondents and the participation of women farmers with a Pearson correlation value of 0.805 with a very weak relationship with a negative or opposite direction. Meanwhile, the relationship between the role of agricultural instructors and the level of participation of women farmers in dry land corn farming in Jerowaru District obtained a significance value of 0.194. In this case, the relationship between the role of agricultural instructors and the level of participation of women farmers is in the insignificant relationship category with a Pearson Correlation of 0.170, which means the strength of the relationship is very weak but in the same direction.

## KEY WORDS
Role of extension officers, women's participation, influencing factors, relationships.

Indonesia is an agricultural region, because it has fertile land so that the agricultural sector can be used as the center of the community's economy, the agricultural sector even has an important role in the national development process because the agricultural sector is a determinant of price stability and can also influence economic inflation, due to increasing the agricultural sector can reduce imports and increase exports [1].

In agricultural development, women have no small potential, because women contribute energy and skills to help increase family and community income. The importance of the involvement of women farmers in livelihood work, both in carrying out agricultural and non-agricultural activities. The direct involvement of women farmers in earning a living is an opportunity for women farmers to better understand the structure of rural society [2].

Farming women are figures of rural women, both adults and young. They are farmers' wives or members of farming families who are involved directly or indirectly, permanently or at any time in the life and livelihood activities of rural farming families. Women play an important role as housewives with various types of work from heavy to light, such as managing the household, cooking, washing, caring for and educating children. However, in line with technological developments in the agricultural sector, we can take maximum benefit from all types of resources around us in the form of natural resources and human resources [3].

Research [4] states that in farming, women have a high role and participation in the seeding, harvesting, post-harvest and marketing processes becausethese activities require more labor so that the wife's presence is considered to be able to help the husband work rather than having to hire outside labor, does not require more complicated technical treatment and the activity is considered physically lighter, as well as being a social norm that

is formed in society that Women are considered unsuitable for doing heavy work that requires physical strength.

Participation is a form of active community involvement starting from the stage of the decision-making process regarding planned activities, the stage of implementing activities, the stage of enjoying the results and the stage of evaluating the implementation of activities. Several studies emphasize the importance of women's participation in agricultural activities, food production and household food security. Women also contribute to the sustainability of biodiversity and native plant resources, which the world now considers essential for food security [5].

Corn is a strategic crop as food, feed and industrial raw materials. Corn has great economic value and strategic opportunities to be developed. Corn is the second food crop commodity after rice and a source of substitute calories for rice. Corn production increases by 5.6% every year along with increases in productivity and corn area. In Indonesia, corn is cultivated on various types of land taking into account the type of agroecology, soil fertility, water sources, planting season and farmers' financial capabilities. Very large diversity results in diversity in productivity. Apart from being a food requirement, corn is also used for feed and industry, reaching more than 50% of national needs. Cultivated corn has a good economic strategy and perspective [6].

Jerowaru District is one of the sub-districts in East Lombok with an area of 142.78 Ha and is the third largest area in East Lombok district, after Sambelia District and Sembalun District. Dry land of 8,573 Ha, with a fairly large land area, Jerowaru sub-district has the potential to produce corn plants, to support the level of national food security. It has an area of 142.78 km2 with details of 5,454.79 areas of rice fields and 8,573 ha of dry land with a population of 61,616 people with a male population of 29,658 people while the number of women is 31,958 people.

## METHODS OF RESEARCH

This research uses a descriptive method. The unit of analysis in this research is female farmers who cultivate corn on dry land in Jerowaru District, East Lombok Regency. This research was carried out by determining the research area using purposive sampling, namely determining the research area deliberately accompanied by various considerations in selecting the research area. Determining the number of respondents was carried out by selecting 30 female farming respondents from each village where the research was conducted in two villages, namely Seriwe Village and Sekaroh Village so that the number of respondents to be interviewed was 60 respondents. The determination of respondents was carried out using "Accidental Sampling", namely by interviewing respondents or female farmers who happened to be found while conducting direct research in the field. The data in this research consists of qualitative data and quantitative data. The data sources in this research consist of primary data and secondary data. Primary data collection uses interview techniques.

The role of extension agents in improving corn farming consists of extension agents as facilitators, instructors as motivators, instructors as communicators and instructors as organizers. To find out the role of extension workers in improving corn farming, a categorical analysis can be carried out according to score intervals and processing is carried out based on score intervals.

Women Farmers' participation can be seen from their participation in planning, implementing and evaluating corn farming activities. To determine women's participation in improving corn farming, categorical analysis can be carried out according to score intervals and processing is carried out based on score intervals.

To analyze the relationship between the role of agricultural instructors and the level of participation of women farmers, the Pearson correlation test was carried out using SPSS. Pearson correlation is a simple correlation that only involves one dependent variable and one independent variable. Pearson correlation produces a correlation coefficient which functions to measure the strength of the linear relationship between two variables. If the relationship

between two variables is not linear, then the Pearson correlation coefficient does not reflect the strength of the relationship between the two variables being studied, even though the two variables have a strong relationship. The basis for decision making in the correlation test is that if the significant value is <0.05 then it is concluded that there is a significant relationship or correlation between the variables being linked, conversely if the significant value is >0.05 then it is concluded that there is no significant correlation between the variables being linked (Sugiyono 2013:357).

Table 1 – Criteria for Extension Officers in Improving Corn Farming

| Intervals | Category |
|---|---|
| 19 – 32 | No Role |
| 33 – 46 | Just Playing a Role |
| 47 – 60 | Play a role |
| 61 – 74 | Very Involved |

Table 2 – Criteria for Women's Participation in Corn Farming

| Intervals | Category |
|---|---|
| 24 – 41 | Low |
| 42 – 60 | Currently |
| 61 – 78 | Tall |
| 79 – 96 | Very high |

The criteria for the level of relationship (correlation coefficient) between variables range from 0.00 to 1.00. The + sign is positive and the – sign is negative. The interpretation criteria:

- to 0.20 means: almost no correlation;
- 0.21 to 0.40 means: low correlation;
- 0.41 to 0.60 means: moderate correlation;
- 0.61 to 0.80 means: high correlation;
- 0.81 to 1.00 means: very high correlation.

In this research, the role of extension workers is the dependent variable (X) and the participation of women farmers is the independent variable (Y). Testing of each variable is carried out by directly testing the dependent variable with the independent variable which will then be interpreted.

## RESULTS AND DISCUSSION

Age is one of the factors that supports a person's level of productivity, especially physical strength. According to the World Health Organization (WHO), adult age classification is a grouping of human ages based on certain time periods with the aim of making it easier to measure health, social and economic analysis. This classification is also used to determine the stages of human development from childhood to adulthood. Adulthood itself is a period of time that is considered the point at which a person reaches physical, mental and emotional maturity. The adult age classification according to WHO is very important in various fields such as health, public policy, education and economics. Adult age categories are determined based on certain age ranges set by WHO, namely teenagers (10-19 years), young adults (20-34 years), adults (35-54 years), pre-elderly (55-74 years) , and elderly (over 75 years) [8].

The level of education is one of the factors that influences the way respondents think in carrying out and developing the quality of thinking for individuals [9]. The number of family dependents referred to in this research is members of the farming family (respondents) who are members or part of the farming family. This can influence the amount of farmers' expenses and help in earning a living [10].

According to [11], technical and managerial agricultural extension is carried out by an instructor whose function is to provide educational services and information that farmers need, so that farmers can do better farming. Apart from that, [12] stated that the role of agricultural instructors is very much needed to guide farmers in improving farmer skills so

that it is hoped that farmers will adopt high agricultural technology so that they can increase farmers' production results and improve the welfare of farmers and their families. The data on the distribution of respondents' assessments of the role of instructors is presented in Table 4.

Table 3 – Characteristics of Respondents in Jerowaru District

| No | Characteristics | Village | | | | Total | |
|---|---|---|---|---|---|---|---|
| | | Seriwe | | Sekaroh | | | |
| | | ∑ | % | ∑ | % | ∑ | % |
| 1. | Age (Years) | | | | | | |
| | 20- 34 | 19 | 63 | 12 | 40 | 31 | 52 |
| | 35- 54 | 11 | 37 | 18 | 60 | 29 | 48 |
| | 55- 74 | - | | | | 0 | |
| | >74 | - | | - | | 0 | |
| | Total | 30 | 100 | 30 | 100 | 60 | 100 |
| 2. | Level of education | | | | | | |
| | No school | 2 | 7 | 4 | 12 | 6 | 10 |
| | Not completed in primary school | 3 | 10 | 5 | 17 | 8 | 13.3 |
| | Finished elementary school | 6 | 20 | 8 | 27 | 14 | 23.3 |
| | Finished middle school | 7 | 23 | 3 | 10 | 10 | 16.7 |
| | Finished high school | 11 | 37 | 8 | 27 | 19 | 31.7 |
| | Graduated from college | 1 | 3 | 2 | 7 | 3 | 5 |
| | Total | 30 | 100 | 30 | 100 | 60 | 100 |
| 3. | Long time farming | | | | | | |
| | 1–4 | 6 | 20 | 3 | 10 | 9 | 15 |
| | 4–7 | 11 | 37 | 3 | 10 | 14 | 23 |
| | 7–10 | 11 | 37 | 10 | 33 | 21 | 35 |
| | >10 | 2 | 6 | 14 | 47 | 16 | 27 |
| | Total | 30 | 100 | 30 | 100 | 60 | 100 |
| 4. | Dependent Family Members | | | | | | |
| | 0 – 1 | 7 | 23 | 7 | 23 | 14 | 52 |
| | 2 – 3 | 14 | 47 | 15 | 50 | 29 | 42 |
| | 4 - 5 | 8 | 27 | 8 | 27 | 16 | 5 |
| | >6 | 1 | 3 | 0 | 0 | 1 | 1 |
| | Total | 30 | 100 | 30 | 100 | 60 | 100 |
| 5. | Respondent's Occupation | | | | | | |
| | Main | | | | | | |
| | Farmer | 18 | 60 | 19 | 63 | 37 | 62 |
| | Trader | | | 3 | 10 | 3 | 5 |
| | Teacher | | | 2 | 7 | 2 | 3 |
| | IRT | 12 | 40 | 6 | 20 | 18 | 30 |
| | Total | 30 | 100 | 30 | 100 | 60 | 100 |
| | Side | | | | | | |
| | a. Farmer | 1 | 3 | 5 | 16 | 6 | 10 |
| | b. Farm workers | 4 | 13 | 11 | 37 | 15 | 26.7 |
| | c. Fisherman | 5 | 17 | 1 | 3 | 6 | 10 |
| | d. Trader | 3 | 10 | 2 | 7 | 5 | 8.3 |
| | e. Doesn't work | 17 | 57 | 11 | 37 | 28 | 45 |
| | Total | 30 | 100 | 30 | 100 | 60 | 100 |
| 6. | Income | | | | | | |
| | <Rp 10,000,000 | 0 | 0 | 2 | 6.67 | 2 | 3.33 |
| | IDR 10,000,000-IDR 25,000,000 | 1 | 3.33 | 9 | 30 | 10 | 21.67 |
| | IDR 25,000,000-IDR 45,000,000 | 7 | 23.33 | 4 | 13.33 | 11 | 13.3 |
| | >Rp 45,000,000 | 22 | 73.33 | 15 | 50 | 37 | 61.7 |
| | Total | 30 | 100 | 30 | 100 | 60 | 100 |
| 7. | Land Area (Ha) | | | | | | |
| | a. <0.5 | 1 | 3 | 1 | 3 | 2 | 3 |
| | b. 0.5- 1 | 16 | 53 | 14 | 47 | 30 | 50 |
| | c. 1–1.5 | 10 | 33 | 2 | 7 | 12 | 20 |
| | d. >1.5 | 3 | 10 | 13 | 43 | 16 | 27 |
| | Total | 30 | 100 | 30 | 100 | 60 | 100 |

*Source: Processed Primary Data, 2024.*

Table 4 – Obtained Mode Score for Each Indicator of the Role of Extension Officers

| No | Mode (Score) | Number of people) | Percentage (%) | Category |
|---|---|---|---|---|
| 1. | 1 | 43 | 71.67 | No Role |
| 2. | 2 | 7 | 11.67 | Just Playing a Role |
| 3. | 3 | 10 | 16.67 | Play a role |
| 4. | 4 | 0 | 0 | Very Involved |

*Source: Primary Data Processed, 2024.*

Based on Table 4 above, it can be seen that as many as 49 respondents or (71.67) said that extension workers did not play a role as facilitators, communicators, motivators, organizers and educators in Jerowaru sub-district, namely 19 people in Seriwe village and 24 people in Sekaroh village. Meanwhile, the remaining 7 or (11.67%) respondents said that instructors played a sufficient role, namely 4 people in Seriwe village and 3 people in Sekaroh village and 10 people or (16.67%) said that instructors were in the role category, namely 7 people in Seriwe village. and 3 people in Sekaroh village. Based on the results of interviews with extension workers in Jerowaru District, they also said that "extension officers have not been optimal in carrying out their roles because farmers also rarely participate in these activities.

Table 5 – Obtaining the mode for each indicator of the role of extension workers in Jerowaru District

| No | Indicators of the Role of Extension Officers | Mode (Score) | Number of people) | Percentage (%) | Category |
|---|---|---|---|---|---|
| 1. | Facilitator | 2 | 29 | 48.33 | Just Playing a Role |
| 2. | Motivator | 2 | 30 | 50 | Just Playing a Role |
| 3. | Communicator | 1 | 60 | 100 | No Role |
| 4. | Organizer | 1 | 35 | 58.33 | No Role |
| 5. | Educator | 1 | 45 | 75 | No Role |

*Source: Primary Data Processed, 2024.*

Based on table 5, it is known that the 5 indicators of the instructor's role are in the non-role category, namely the indicators of communicator, organizer and educator. Meanwhile, the other two indicators, such as facilitators and motivators, are in the moderately important category. The distribution of respondents' assessments of each indicator is as follows:

- The role of extension workers as facilitators is in the moderately important category with the number of respondents being 29 people (48.33%), namely 12 people in Seriwe village and 17 people in Sekaroh village. Meanwhile, 29 people (48.33%) gave a value of not playing a role, namely 16 people in Seriwe village and 13 people in Sekaroh village. In the role category, there were 2 farmers (3.33%) in Seriwe village who considered extension workers to act as facilitators;
- The role of instructors as Motivators is in the moderately important category with a total of 30 respondents (50%), namely 14 people in Seriwe village and 16 people in Sekaroh village. Meanwhile, 11 people (18.33%) gave a value of not playing a role, namely 3 people in Seriwe village and 8 people in Sekaroh village. In the role category there were 17 people (28.33%), namely 12 people in Seriwe village and 5 people in Sekaroh village. Meanwhile, there were 2 people (3.33%) who stated that the penuluih played a very important role as a motivator, namely 1 person in Seriwe village and one person in Sekaroh village;
- The role of extension workers as communicators is in the non-role category with a total of 60 respondents (100%), namely 30 people in Seriwe village and 30 people in Sekaroh village;
- The role of extension workers as organizers is in the no role category with the number of respondents being 35 people (58.33%), namely 15 people in Seriwe village and 20 people in Sekaroh village. Meanwhile, 17 people (28.33%) gave a sufficient value for their role, namely 10 people in Seriwe village and 17 people in Sekaroh village. In the role category there were 8 people (13.33%), namely 5 people in Seriwe village and 3 people in Sekaroh village;
- The role of instructors as educators is in the no role category with the number of respondents being 45 people (58.33%), namely 19 people in Seriwe village and 26 people in Sekaroh village. Meanwhile, 8 people (13.33%) gave a sufficient score for their role, namely 6 people in Seriwe village and 2 people in Sekaroh village. In the role category there were 7 people (11.67%), namely 5 people in Seriwe village and 2 people in Sekaroh village.

The participation of women farmers in corn farming in this research is measured by the participation of women farmers at each stage starting from planning, implementation, utilization of results to evaluation of the farming business. The level of participation of women in dry land corn farming in Jerowaru District is divided into two, namely on hill land in Seriwe Village and on dry land in Sekaroh Village. Detailed data on women farming participation is described in Table 6.

Table 6 – Distribution of Respondents' Assessment of the Participation of Women in Corn Farming of Jerowaru District

| No | Score Mode | Number of people) | Percentage (%) | Category |
|---|---|---|---|---|
| 1. | 1 | 1 | 1.67 | Low |
| 2. | 2 | 25 | 41.67 | Currently |
| 3. | 3 | 27 | 45.00 | Tall |
| 4. | 4 | 7 | 11.67 | Very high |
| Amount | | 60 | 100 | |

*Source: Processed Primary Data, 2024.*

Based on table 6, the respondents' assessment of the participation of women farmers in Jerowaru sub-district is in the high category, mode score 3 with a total of 27 respondents (45%), namely 14 people in Seriwe village and 13 in Sekaroh village, while the others are in the low category distribution with score mode 1, the number of respondents was 1 person (1.67%), namely 1 person in Sekaroh village, medium category with score mode 2, the number of respondents was 25 people (41.67), namely 13 people in Seriwe village and 12 people in Seriwe village Sekaroh and in the very high category with a score mode of 4, namely 7 people (11.67%), namely 3 people in Seriwe village and 4 people in Sekaroh village.

In terms of women's participation, there are several indicators measured in this research, namely at the planning, implementation, benefit generation and evaluation stages. The score mode obtained for each indicator in the female farmer participation variable is presented in the following table.

Table 7 – Obtaining the score mode for each indicator in the variable participation of women farmers

| No | Indicators of Women Farmer Participation | Score Mode | Spread | | Category |
|---|---|---|---|---|---|
| | | | ∑ | % | |
| 1. | Planning | 2 | 46 | 76.67 | Currently |
| 2. | Implementation | 3 | 35 | 58.33 | Tall |
| 3. | Obtaining Benefits | 4 | 35 | 58.33 | Very high |
| 4. | Evaluation | 3 | 26 | 43.33 | Tall |

*Source: Processed Primary Data, 2024.*

The distribution of respondents based on the table above shows that the participation of women farmers in corn farming in Jerowaru sub-district is in the high category, namely at the implementation and evaluation stages. Meanwhile, the other 2 indicators, namely planning, are in the medium category and benefit generation is in the very high category. The distribution of respondents' assessments of each indicator is as follows:

At the planning stage, there were 46 respondents in the medium category, namely 22 people in Seriwe village and 24 people in Sekaroh village. The planning stage is carried out when women farmers are involved in planning land processing such as spraying grass, cleaning grass and burning grass. Planting planning such as type of seed, planting time, depth of drilling hole, number of seeds to be planted per hole, planting distance, number of workers, and the amount of wages that will be given to the workers. Embroidery planning is planning the embroidery time. Weeding planning such as weeding time, type of herbicide used, and dosage. Fertilization planning such as type of fertilizer, comparison of fertilizer use, and fertilization time. Irrigation planning includes planning and determining the amount and time of irrigation. Pest and disease control planning such as control methods, types of

drugs to be used, dosages of drug use, control time and labor wages. Harvest planning such as time, number of workers, and harvest wages. Post-harvest planning such as transporting the harvest, shelling techniques (machine/manual), number of workers and wages. Capital planning such as the amount of capital, sources of capital, and distribution of capital.

The results of the research show that female farmers are involved in capital planning in both Seriwe village and Sekaroh village in corn farming in Jerowaru District. Female farmers assume that planning for corn farming is carried out by male farmers who are members of farming groups. In this research, the planning aspect is looked at post-harvest, namely women participate in planning the number of workers and labor wages. Meanwhile, in capital planning, women farmers participate in planning the amount of capital, sources of capital, and how the capital will be distributed.

Based on participation indicators in the implementation aspect, the involvement of women corn farmers in Jerowaru sub-district is in the high category with a total of 35 respondents (58.33%), namely 21 people in Seriwe village and 14 people in Sekaroh village. The implementation stage referred to in this research is when female farmers participate in land processing activities such as spraying herbicides, clearing land, and burning grass. Implementation of planting such as type of seed, planting time, depth of drilling hole, number of seeds to be planted per hole, planting distance, number of workers, and the amount of wages that will be given to the workers. Implementation of embroidery is planning the embroidery time. Implementation of weeding such as weeding time, type of herbicide used, and dosage. Implementation of fertilization such as type of fertilizer, comparison of fertilizer use, and timing of fertilization. Irrigation planning includes planning and determining the amount and time of irrigation. Implementation of pest and disease control such as control methods, types of drugs to be used, dosages of drug use, control time and labor wages. Harvest implementation such as time, number of workers, and harvest wages. Post-harvest implementation such as transporting the harvest, shelling techniques (machine/manual), amount of labor and wages. The research results show that female farmers participate highly in land processing, weeding and planting indicators.

Based on the indicators for utilization, the participation of women farmers is in the Very High category, namely 35 people (58.33%), namely 19 people in Seriwe village and 16 people in Sekaroh village. The stage of utilizing the results in question is managing the financial results of corn farming and spending the results of corn farming for household needs.

The results of the research show that respondents from Seriwe and Sekaroh villages said that women fully manage the financial results of corn farming by storing, managing and spending to meet their daily needs. However, some of them said that female farmers play a role in managing together with their husbands.

In the evaluation indicator, female farming participation is in the high category, namely 26 people (43.33%), namely 13 people in Seriwe village and 13 people in Sekaroh village. The results of the research show that women farmers participated in expressing their opinions regarding the evaluation of production assessments, assessments of production inputs and assessments of the production process.

Overall, farmer participation in corn farming is relatively high, this indicates that the involvement of women farmers in planning, implementation and evaluation tends to be high, namely at the implementation and evaluation stages. The product utilization stage has a very high category, which means that women farmers participate in managing the financial results of farming for themselves and their families and spend them for household needs. However, at the planning stage, participation of women farmers was in the medium category. Women farmers admitted that they only participated in planning one indicator item of land processing, planting, replanting, weeding, fertilizing, watering, controlling pests and diseases, harvesting, post-harvest, and capital such as planning herbicides, labor, labor costs, and capital sources.

This is in line with research [13] which states that in the planning indicators female farmers are in the low category while male farmers are in the high category. This is because female farmers assume that farming planning is carried out by men who are members of farmer groups because in planning, male farmers take part in formulating the problems faced

by farmer groups and participate in formulating alternative types of farming activities that will be implemented.

Based on the data in table 8 above, it shows that in general there is no relationship or correlation between the characteristics of respondents and the participation of women farmers with a Pearson correlation value of 0.805 with a very weak relationship with a negative or opposite direction. Meanwhile, the relationship between the role of agricultural instructors and the level of participation of women farmers in dry land corn farming is very weak and a significance value of 0.194 was obtained. In this case, the relationship between the role of agricultural instructors and the level of participation of women farmers is in the insignificant relationship category with a Pearson Correlation of 0.170, which means the strength of the relationship is very weak but in the same direction.

Table 8 – Pearson Correlation Test between the Role of Extension Officers and the Participation of Women Farmers

| Correlations | | | | |
|---|---|---|---|---|
| | | Total Characteristics | Total Roles | Total Participation |
| Total Characteristics | Pearson Correlation | 1 | ,343** | -,032 |
| | Sig. (2-tailed) | | ,007 | ,805 |
| | N | 60 | 60 | 60 |
| Total Roles | Pearson Correlation | ,343** | 1 | ,170 |
| | Sig. (2-tailed) | ,007 | | ,194 |
| | N | 60 | 60 | 60 |
| Total Participation | Pearson Correlation | -,032 | ,170 | 1 |
| | Sig. (2-tailed) | ,805 | ,194 | |
| | N | 60 | 60 | 60 |

***. Correlation is significant at the 0.01 level (2-tailed).*
*Source: Processed Primary Data, 2024.*

This is in line with [14], namely the determining factors of farmer characteristics and the level of participation in farmer groups at the planning and implementation stage have very high participation (84%), the level of farmer participation at the evaluation stage is high (82%) and the level of farmer participation at the enjoy very high yields (89%). The relationship between characteristics and participation has no relationship with the level of education, on the contrary, the variables age, length of farming, cosmopolitan land area and leadership have a significant relationship/correlation with the level of participation in agricultural activities. The results of the interaction of internal factor variables and external factors have a fairly strong level of relationship, where the relationship between farmer characteristics and participation level is in the same direction so that H0 is rejected and Ha is accepted.

Apart from that, according to [15] the calculation results using R-square were 96.91%. Independent variables that have a positive influence on tobacco farmers' income include: the amount of tobacco production ($X_1$), land area (X2), tobacco selling price (X2), farmer's education level (X9), and farming experience (X). Independent variables that have a negative sign include variables X1, X4, X5, and Xs. These four variables are variables that reflect production costs. These variables have a correlation with the farming income variable with a negative sign: In theory, income and costs have a negative correlation. If there is an increase in the use of production costs, it will reduce the value of income obtained by farmers.

## CONCLUSION

Respondents' assessment of the role of agricultural instructors was in the no role category. This shows that extension workers do not carry out their roles as facilitators, motivators, communicators, organizers and educators.

The level of participation of women farmers in dry land corn farming is in the high category. This shows that women participate at the planning, implementation, benefit generation and evaluation stages.

Based on the results of the Pearson correlation test, it shows that in general there is no relationship or correlation between the characteristics of respondents and the participation of women farmers with a Pearson correlation value of 0.805 with a very weak relationship with a negative or opposite direction. Meanwhile, the relationship between the role of agricultural instructors and the level of participation of women farmers in dry land corn farming in Jerowaru District obtained a significance value of 0.194. In this case, the relationship between the role of agricultural instructors and the level of participation of women farmers is in the insignificant relationship category with a Pearson Correlation of 0.170, which means the strength of the relationship is very weak but in the same direction.

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