Agribusiness Journal
https://usnsj.id/index.php/AJ
journalagribusiness@gmail.com
e-ISSN: 2548-2211, p-ISSN: 2548-379X

DOI : https://doi.org/ 10.31327/aj.v8i1.2347

The Role of Farmers' Groups in Increasing Rice Farming Production

Yanti Sasmita[1]*, Fatmah[2], Nurmala[3], Mahdar[4], Sulham[5]
Mujahidin Tolitoli College of Agricultural Sciences
*Correspondence Email:yantisasmita27@gmail.com

Abstract

This study aims to determine the role of farmer groups in the implementation of rice farming activities in Tinigi Village and the relationship between the role of farmer groups in increasing rice farming production in Tinigi Village, Galang District, Tolitoli Regency. The analysis method used is a descriptive analysis method using a Likert Scale and Multiple Linear Regression to determine the influence of learning classes, cooperation facilities and production units. The results of the study show that (1) the role of farmer groups in rice farming is categorized as high, both as a learning class, cooperation facilities and production units (2) The results of the Determination Coefficient Test (R) of multiple linear regression analysis that R is 0.532 or 53.2% means that the percentage of contributions affects learning classes, cooperation facilities and production units. The results of the F Test show that the independent variables simultaneously have a significant effect on the dependent variable. The results of the T Test show that learning classes (X1), cooperation facilities (X2) production units (X3) affect the role of farmer groups, proven by using the T Test.

Keywords: Farmer Group, Production, Rice Fields

A. Introduction

Indonesian agricultural development has been implemented sustainably. with the hope of increasing agricultural production as much as possible So that it will increase farmers' income in achieving well-being. Through increased food production, increased income has an impact. Towards the welfare of farmers is the direction and goal of development Agriculture. Agricultural development is in line with economic development and Society in general. This development produces social changes in values, behaviour, social institutions, and so on to achieve economic growth in society (Sastraadmadja, 2010).

The main target of agricultural development is to increase production. Agriculture and farmers' income, therefore, activities in the agricultural sector are very important.

Endeavoured to ensure that everything runs smoothly according to the initial planning. Increasing food products through intensification, extensification, and diversification. Agriculture is expected to improve the standard of living of farmers, increase farmers' income, expand employment opportunities for groups in society who still depend on the agricultural sector, and improve the welfare of farmers. The government carries out its role as a stimulator and facilitator that will encourage the emergence of economic and social activities of farmers so that they can benefit from increasing their income and welfare (Roidah, 2015).

Farmer groups play a role in improving the performance of farmers. In the form of groups consisting of farmers in each village. Farmer groups can carry out their duties and obligations, including: Coordinate cooperation activities for the management of members' land. Farmer groups take turns coordinating the sale of production results and

Establish relationships with extension workers and agricultural services. The existence of Farmer groups can bring farmers together to solve problems. Existing problems such as the provision of agricultural production facilities, production techniques and marketing of the results. Seeing this potential, farmer groups need to be guided and further empowered so that they can develop optimally (Triwidarti, 2015).

Problems that often arise in farmer institutions are the low quality in managing farming businesses efficiently, low ability to establish cooperation with agribusiness actors and other rural economic institutions, the weak capacity of farmer economic institutions (legal entities), limited access for farmers to sources of financing/capital and marketing and limited access for farmers to science and technology and information so that it affects the ability class of farmer groups (Abay, 2020).

Efforts to increase rice production in lowland rice will not be successful without the use of new technologies in cultivation techniques, seeds, medicines, and fertilisers. However, amid government demands and conditions that require annual increases in rice production, farmers cannot rely solely on themselves to run their farms, especially in terms of development, which requires numerous supporting factors such as production facilities, maintenance, capital, and other resources. This can certainly be achieved by establishing an organisation that brings together farmers as a community with similar professions and shared goals.

Farmer groups are part of the supporting services subsystem, where they must be able to play a role in supporting the subsystem activities of production input procurement, farming, agricultural processing, and marketing. Farmers, as the primary actors, are the subjects in the development of this agricultural system and are consumers of the services provided by supporting institutions. This will work well if there is no gap between supporting institutions and their business activities (Tedjaningsih et al., 2018).

B. Methodology

Types of research

The type of research used is quantitative descriptive research. Descriptive research is conducted to describe phenomena, events, and incidents that occur factually, systematically, and accurately. This research describes quantitative data obtained regarding the condition of subjects or phenomena within a population. According to Sugiyono (2012, in Asnawati, 2021), quantitative descriptive research is research conducted to determine the value of one or more independent variables without making comparisons or linking them to other variables.

Population and Sample

Based on calculations using the Slovin method, a sample of 64 people was obtained from a population of 182 people. Respondents were then selected proportionally from each sample farmer group. Proportional Stratified Random Sampling was used to determine the respondent sample in each sample farmer group. Proportional Stratified Random Sampling is a method of taking samples by considering strata (levels) or numbers in the population (Arikunto, 2002, in Kasriani, 2018).

Data Collection Techniques

Data is one component of research, meaning that without it, there is no research. The data collection techniques used in this study were observation, interviews, and documentation.

Data Analysis Methods

To determine the role of farmer groups in Tinigi Village, Galang District, Tolitoli Regency, descriptive analysis was carried out through scoring using the Likert Scale, and to determine the relationship between farmer groups and rice production in Tinigi Village, a multiple linear regression analysis method was used using the IBM SPSS Statistics 26 for Windows program.

C. Results and Discussion

Tinigi Village is a village located in Galang District, Tolitoli Regency, Central Sulawesi Province, approximately 12 km from the capital of Tolitoli Regency, geographically located at 1˚07'30.4''N 120˚49'46.2''E. The boundaries of Tinigi Village are as follows: To the north, it borders Tende Village, to the east it borders Malangga Village, to the south it borders Kalangkangan Village, and to the west it borders the villages of Lalos and Ginunggung (Tinigi Village Office, 2021). Administratively, Tinigi Village has a total area of 25.6 km2, which, when converted to hectares, is 2,560 ha.

Hypothesis Test 1: The role of farmer groups in implementing farming activities. In farming, the presence of farmer groups plays an important role as a learning class, a means of cooperation and a production unit between farmers (Kholik et al., 2017). According to the function and purpose of farmer groups, which have several roles in increasing production, including as a learning class, a means of cooperation and a production unit, the results of research on the role of farmer groups in rice farming in Tinigi Village can be seen in Table 1 below:

Table 1. Category of the Role of Farmer Groups Based on Factors Influencing Rice Farming Production in Tinigi Village, 2022

No	Factor affecting	Mark
1	Study Class	2.220
2	Collaboration Vehicle	2.226
3	Production Unit	1.584
	Amount	6.030

Source: Processed Primary Data, 2022

Table 1 shows that the role of farmer groups based on learning classes, collaboration platforms, and production units is categorised as high. This is due to the average decision value of 6,030. Based on the research data, it can be concluded that the role of farmer groups in increasing rice farming production in Tinigi Village, Galang District, Tolitoli Regency is categorised as high, with several influencing factors. To see the summation of the factors that play a role in farmer groups, see. This is in line with research (Sasuetata, 2018). Hypothesis Test 2: The Relationship between the Role of Farmer Groups and Increasing Rice Production in Wetlands To see the results of the test of the relationship between farmer group institutions as a learning vehicle, a means of cooperation, and a production unit with the production of rice farming in Tinigi Village. Each hypothesis was tested using a Multiple Linear Regression Test. The data tested were ordinal data that had been converted into interval data using the Method of Successive Interval (MSI). The data can be seen in Table 2 as follows:

Table 2. Results of Multiple Linear Regression Analysis Between Independent Variables and Dependent Variables, 2022

Independent Variables	Regression Coefficient	Standard Error	t Count	Significance (α)
constant	-1,389	0.446	-3,112	0,003
Study Class	0,043	0,020	2.137	0,037
Collaboration Vehicle	0,051	0,018	2.822	0,006
Production Unit	0,061	0,024	2.520	0,014

Source: Processed Primary Data, 2022

Table 2 shows the results of the multiple linear regression analysis that will be used to determine the relationship between the independent variables and the dependent variable. Where the constant value is -1.389, meaning that if the independent variables Learning Class (X1), Cooperation Vehicle (X2), and Production Unit (X3) are zero or constant, then the production of lowland rice farming will decrease by 1.38.

The regression coefficient value of the independent variable of the learning class (X1) has a positive value of 0.043. This indicates that if there is an increase in the role of farmer groups as

learning classes by 1%, then the production of rice farming will increase by 0.043. This means that when farmer groups often conduct training, regularly hold meetings, discussions between group members regarding problems faced, continue to dig up information related to technological developments and use farmer groups as other learning classes, there will be an increase in rice production by 0.043%.

The regression coefficient value of the independent variable of the cooperation vehicle (X2) has a positive value of 0.051. This indicates that if there is an increase in the role of farmer groups as a cooperation vehicle by 1%, then the productivity of rice farming will increase by 0.051. This means that when the role of farmer groups as a cooperation vehicle is increased, such as cooperation in terms of procuring production facilities, cooperation in procuring tools and practical materials, cooperation in creating comfortable situations and conditions in farmer groups and the use of farmer groups as other production units, there will be an increase in rice production by 0.051%.

The regression coefficient value of the independent variable of production unit (X3) has a positive value of 0.061; this indicates that if there is an increase in the role of farmer groups as production units by 1%, then the production of rice farming will increase by 0.61. This means that when the role of farmer groups as production units is further increased, such as the procurement of modern agricultural machinery by the farmer groups themselves, suggestions for the use of fertilisers, pesticides and seeds that will be used in running rice farming, there will be an increase in rice production by 0.043.

The Influence of the Learning Class Variable (X1) on the Role of Farmer Groups. Testing of the learning class variable (X1) has a significance value of 0.037. The significance value is smaller than the confidence level value of 0.05 and the calculated T value ≥ T table where the calculated T of 2.137 is greater than the T table which is 1.671 or 2.137 ≥ 1.671 then Ho is rejected and Ha is accepted meaning that the learning class variable has a positive effect on the production of rice farming in Tinigi Village.

The regression results show a regression coefficient of 0.043. This indicates a positive relationship between the role of farmer groups as production units and rice paddy production. This means that every 1 per cent increase in the average production unit will increase rice paddy production by 0.043 per cent, if other independent variables are held constant. Farmer groups as learning classes have an impact because, as learning classes, farmer groups show satisfactory results, as seen from farmer groups that can serve as a forum or place for farmers, especially members of each farmer group, to learn about the problems faced in running their farming businesses and in understanding the technology and systems that are widely used today. This is in line with research (Asnawati et al., 2021) where the Independent Learning Class variable has a significant effect and has a close relationship with the dependent variable, namely rice paddy production.

The Influence of the Cooperation Vehicle Variable (X2) on the Role of Farmer Groups. Testing of the cooperation vehicle variable (X2) has a significance value of 0.006. The significance value is smaller than the confidence level value of 0.05, or a value of 0.006 ≤ 0.05, then the X2 variable is declared significant and has a positive effect on the role of farmer groups. The X2 variable has a calculated T of 2.822 with a T table of 1.671, or 2.822 ≥ 1.671, so Ho is rejected and Ha is accepted, meaning that the cooperation vehicle variable has a positive effect on the production of rice farming in Tinigi Village.

Based on the regression above, a regression coefficient of 0.51 was obtained. This indicates a positive influence of the role of farmer groups as a means of cooperation on lowland rice production. This means that every 1 per cent increase in the average quality of the class of cooperation means will increase lowland rice farming production by 0.051 per cent if other independent variables are held constant. This can also be interpreted as meaning that the cooperation also has an influence on the role of farmer groups because farmer groups collaborate with fellow farmer group members, field extension workers, and agricultural service providers, showing better results. After all, the results of this collaboration have been able to improve farmers' skills in farming. This is in line with research (Yuliana, 2021) where the independent variables, namely capital structure and dividend policy used in the study, have a relationship with

the dependent variable of company value. Thus, every increase in the quality of the independent variable will also increase the dependent variable if other variables are held constant.

The Influence of Production Unit Variable (X3) on the Role of Farmer Groups. Testing of the cooperation vehicle variable (X3) has a significance value of 0.014. The significance value is smaller than the confidence level value of 0.05 or a value of 0.014 ≤ 0.05, so the X3 variable is declared significant and has a positive effect on the role of farmer groups. The X3 variable has a calculated T of 2.520 with a T table of 1.671, or 2.520 ≥ 1.671, so Ho is rejected and Ha is accepted, meaning that the production unit variable has a positive effect on the production of rice farming businesses in Tinigi Village.

The regression results show a regression coefficient of 0.061. This indicates a positive influence between the role of farmer groups as production units and rice paddy farming production, meaning that every 1 per cent increase in the average production unit will increase rice paddy farming production by 0.061 per cent if other independent variables are held constant. Farmer groups as production units influence because, as production units, farmer groups show satisfactory results, seen from farmer groups that have been able to provide production facilities such as tractors, seeds, fertilisers, and pesticides, both from government assistance and the results of collaboration among fellow farmer group members in providing production units. This is in line with research (Setiawati, 2021) where the independent variable X (dividend policy) affects the dependent variable or bound variable Y (firm value) so that every increase in the quality of the independent variable will also increase the dependent variable t if other variables are held constant.

D. Conclusion

Farmer groups play a role as learning classes, collaborative platforms, and production units. A total of 64 respondents categorised learning classes as having a high role, collaborative platforms as having a high role, and production units as having a high role. The cumulative score for farmer groups was 6,030, with a high score. The role of farmer groups as learning classes, cooperation vehicles and production units has a contribution to production of 0.532, which means it has a close relationship of 53.2% and F count 24.917 ≥ F table 2.761, which together (simultaneously) has a significant relationship. Partially, farmer groups as learning classes have a close relationship where the value of the close relationship is 0.43% where if the average increase in learning classes (holding training and other functions as learning classes) by 1% it will increase production by 0.43%. As a means of cooperation, it has a close relationship of 0.51% where if the average increase in cooperation vehicles (Collaborating with group members, PPL and other functions of farmer groups as a means of cooperation) by 1% it will increase production by 0.43%. As a production unit, it has a close relationship of 0.61%, where if the average increase in production units (procurement of production facilities such as tractors, seeds, fertilisers, pesticides, etc.) is 1%, it will increase production by 0.61%.

E. References

Asnawati I, U. Husnah, E. Afrianto. 2021. Peranan Kelompok Tani dalam Usahatani Padi Sawah di Desa Bungo Tanjung Kecamatan Tebo Ulu Kabupaten Tebo. Jurnal Tabaro, 1 (5) : 524 – 535.

Kasriani. 2018. Peran Kelompok Tani dalam Meningkatkan Produktivitas Tanaman Padi. Skripsi. Makassar : Universitas Hasnuddin. http://digilib.unhas.ac.id [28/01/2024].

Kholik A, W Susilawati, F Fikriman. 2017. Pengaruh Faktor Sosial Dalam Kelompok Tani Terhadap Pendapatan Usahatani Kacang Panjang (Vigna Sinensis L) di Kecamatan Tabir Lintas Kabupaten Merangin. JAS (Jurnal Agri Sains), 1(2): 1 – 9.

Roidah, I.S. 2015. Analisis Pendapatan Usahatani Padi Musim Hujan Dan Musim Kemarau.Jurnal Agribisnis Fakultas Pertanian 1(13): 45.

Sastraatmadja. 2010. Suara Petani. Bandung : Penerbit Masyarakat Geografi Indonesia.

Setiawati, S. 2021. Analisis Pengaruh Kebijakan Deviden Terhadap Nilai Perusahaan Pada Perusahaan Farmasi di BEI. Pekanbaru. Jurnal Inovasi Pertanian, 1 (8) : 1581 – 1590. http://doi.org/10.47492/jip.v1i8.308

Sugiyono, 2012. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Alfabeta. Bandung.

Tedjaningsih T, W. A. Handayani, B. Rofatin. 2019. Peran Kelompok Tani Dalam Meningkatkan Produktivitas Usahatani Padi. Kuningan. Jurnal AGRISTAN 2 (1) : 80 – 88.

Triwidarti, T. 2015. Peran Kelompok Tani Sampuna dalam Peningkatan Pengetahuan Petani dan Hasil Produksi Padi di Desa Jenggawah Kecamatan Jenggawah Kabupaten Jember. Jurnal Artikel Ilmiah Mahasiswa. Vol 1. No 1: 1-6.

Yuliana, 2021. Pengaruh Struktur Modal Dan Kebijakan Deviden Terhadap Nilai Perusahaan Pada Sub Sektor Property Dan Real Estate Di Bursa Efek Indonesia (Bei). Tolitoli. Jurnal Inovasi Penelitian 12 (1) : 2587 – 2600.