

THE EFFECTIVENESS OF THE ROLE OF FARMERS' GROUP ON THE PERFORMANCE OF RICE FARMING IN KEMUMU VILLAGE, ARMA JAYA DISTRICT, NORTH BENGKULU REGENCY

Efektivitas Peran Kelompok Tani Terhadap Kinerja Usahatani Padi Sawah di Kelurahan Kemumu, Kecamatan Arma Jaya, Kabupaten Bengkulu Utara)

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ABSTRACT

Farmer groups have an important role in agricultural activities, such as learning classes and vehicles for cooperation and production units. However, in practice there are still some obstacles, such as the infrequency of farmer groups to carry out farming activities and carry out farming activities together. The purpose of this study was to analyze the performance of rice farming, process innovation, the effectiveness of the farmer groups role and its role on the performance of rice farming directly and through process innovation. The data sources used are primary processed descriptively qualitatively and quantitatively using the SEM-PLS approach. The results of the analysis show that the performance of rice farming, process innovation is in the high category and the effectiveness of the role of farmer groups is in the effective category. Analysis of the influence of the effectiveness of farmer groups on the performance of rice farming yielded negative results but not significant. While the indirect effect states that the role of farmer groups has a positive and significant effect on the performance of rice farming through process innovation. Based on a comparison of direct and indirect effects, process innovation is the biggest contributor to improve the performance of rice farming. With these results, farmer groups must still be able to improve the realization of their role so that farmers as members of farmer groups can still improve farming

performance and farmer groups must be more active in overcoming various farming problems.

Keyword: effectiveness, lowland rice, performance, process innovation, role of farmer groups

ABSTRAK

Kelompok tani merupakan lembaga yang memiliki peran penting dalam kegiatan pertanian karena berperan sebagai kelas belajar, wahana kerjasama dan unit produksi. Namun dalam pelaksanaannya masih terdapat beberapa kendala, seperti masih jarangnyanya kelompok tani melakukan kegiatan usaha tani dan melakukan kegiatan usaha tani secara bersama-sama. Tujuan penelitian ini adalah untuk menganalisis kinerja usahatani padi, inovasi proses, efektivitas peran kelompok tani, efektivitas peran kelompok tani terhadap kinerja usahatani padi. dan efektivitas peran kelompok tani terhadap kinerja usahatani padi melalui inovasi proses. Sumber data yang digunakan yaitu primer dan sekunder, dimana data primer diolah secara deskriptif kualitatif dan kuantitatif dengan menggunakan alat analisis SEM-PLS. Hasil analisis menunjukkan Kinerja usahatani ,inovasi proses berada dalam kategori tinggi dan efektivitas peran kelompok tani dalam kategori efektif. Analisis pengaruh efikasi kelompok tani terhadap kinerja usahatani padi menghasilkan hasil negatif tetapi tidak signifikan. Sedangkan pengaruh tidak langsung menyatakan bahwa peran kelompok tani berpengaruh positif dan signifikan terhadap kinerja usahatani padi melalui inovasi proses. Menurut perbandingan efek langsung dan tidak langsung, inovasi proses merupakan kontributor yang lebih besar yang membantu meningkatkan kinerja usahatani padi. Dengan hasil tersebut kelompok tani harus tetap dapat meningkatkan realisasi peran yang dimilikinya agar petani selaku anggota kelompok tani tetap dapat meningkatkan kinerja usahanya dan kelompok tani harus menjadi lebih aktif mengatasi berbagai permasalahan usahatani.

Kata Kunci: efektivitas, inovasi proses, kinerja, padi sawah, peran kelompok tani

INTRODUCTION

Based on Tedjaningsih (2018) and Prasetya (2015), farmer institutions are one of the determinants of success in farming activities. This is because farmer institutions are subsystems of supporting services that assist farmers in providing agricultural production facilities, managing yields and conducting marketing. One of the farmer institutions that play a role in farming activities is farmer groups. According to Hermanto (2007) farmer groups are institutions that act as a forum for farmers in providing knowledge with the aim of advancing agricultural activities. In addition, based on Minister of Agriculture No. 67 of 2016, farmer groups act as learning classes, vehicles for cooperation

and production units, where this role is needed by farmers in carrying out their farming activities.

Based on data from the agricultural extension management information system (Simultan) for 2022, the number of farmer groups in Bengkulu Province is 12,593 units spread across 10 districts/cities. The area that has the most farmer groups is North Bengkulu Regency with a total of 1,883. Farmer groups are spread across all sub-districts/villages in North Bengkulu Regency and the area with the largest number of farmer groups is Kemumu Village in Arma Jaya District with a total of 13 farmer groups.

Based on these figures, it is hoped that the 13 farmer groups in Kemumu Village will be able to maintain or increase rice production and productivity considering that the region has considerable potential to contribute to food needs in North Bengkulu and in Bengkulu Province itself. Based on the survey that has been conducted, there are problems that occur in farmer groups, namely the infrequent farmer groups hold meetings and carry out farming activities together so that farmers as members of farmer groups do not get and feel the role of farmer groups. In addition, currently with these problems, there are farmer groups that have carried out their roles quite well but have not been maximized because not all group members are involved and routine internal group meetings are rarely held.

The role of farmer groups that have been carried out, namely one of them is the role of a production unit and a vehicle for cooperation, namely being a container for distributing seeds provided with the help of certain parties. This seed assistance is very helpful for farmers in farming activities. Based on its role as a learning class, farmer groups have become a forum for farmers in terms of knowledge needs in carrying out farming activities.

This role is carried out because farmer groups are a forum for farmers who become a forum for sharing information, knowledge, and improving skills in carrying out farming activities. Through this farmer group, farmers can have new abilities or methods in an effort to increase production yields which can be seen through the process innovations carried out by farmers in carrying out farming activities. The process innovation carried out is an illustration of the implementation of the role of farmer groups, where the survey results state that the description of process innovation is that farmers can find out new ways of carrying out farming activities as an effort to increase production, such as how to control pests and diseases and use agricultural inputs effectively.

This process innovation makes farmers more helpful and feel the benefits of the existence of farmer groups. However, currently not all farmer groups are running according to their role. In connection with their very large role in farming activities, this farmer group needs to be managed better and run as expected, supporting the success of rice farming in Kemumu Village so that it has an effectiveness value. Masruri & Muazansyah (2017) and Permatasari et

al., (2020) state that effectiveness will show whether or not the implementation of a job is good and to what extent the desired results are achieved. The effectiveness of the role of farmer groups will describe how well the implementation of the roles carried out by farmer groups in Kemumu Village.

The effectiveness of the role of this farmer group will also show that the farmer group is running as it should and can help farmers properly. One illustration of the effectiveness of farmer groups is the increase in production yields produced by farmers. The results of this production will describe the performance of farming. The higher the output, the higher the agricultural performance. Based on Ali et al., (2018), performance is a response or work result achieved by an individual or group. This means that the performance of farming will describe an achievement that has been achieved by farmers in carrying out their farming activities.

Research on the performance of rice farming is important to do to see the extent to which the ability of farmers to increase rice production and the influence of the effectiveness of the role of farmer groups on the performance of rice farming and process innovation carried out by farmers will illustrate the extent to which the abilities and roles of farmer groups can help farmers achieve the goals of agricultural activities.

RESEARCH METHOD

The Kemumu Village was the site of the research. The study was carried out in February 2022. Both primary data and secondary data were employed in the data collection process for this investigation. Secondary data was gathered from literary sources, Kemumu Village Profile, North Bengkulu in Numbers, Agricultural Extension Information System (Simluhtan, 2022), and Program Kemumu Village Counseling (PDD, 2022), while primary data was obtained from an interview process using a closed questionnaire on a Likert scale to 120 respondents chosen using the simple random sampling method.

Data analysis method

To answer the research objectives one, two and three categories are used to evaluate the effectiveness of the role of farmer groups, process innovation and performance of rice farming. Based on Mitra (2021) to obtain interpretation results, it must first know the highest (maximum) score, score index and score interval.

1. Calculating Highest Score

Maximum Score = Number of Respondents × Likert Highest Score × Number of Likerts

2. Calculating Score Index

$$\text{Indeks Skor (\%)} = \frac{\text{Total skor}}{\text{Skor maksimal}} \times 100$$

3. Interval Formula

$$\text{Interval (I)} = \frac{100}{\text{Jumlah skor likert}}$$

Structural Equation Modeling (SEM) analysis.

To answer the fourth and fifth research objectives, namely knowing the effect of farmer group performance on rice farming and the effect of farmer group performance on rice farming through process innovation, the Structural Equation Modeling (SEM) analysis method was used.

Outer Measurement Model

Validity test

In SEM analysis, the validity test is carried out using convergent validity and discriminant validity.

Convergent validity

According to Ghozali & Latan (2015), convergent validity is a test run in accordance with the idea that construct measures ought to be highly correlated. The criteria for measuring the indicators Average Variance Extracted (AVE) and Outer Loading in this test are AVE value 0.5 and Outer Loading 0.5. These results show that the construct can account for at least 50% of the item variance (Wong, 2013).

Discriminant Validity

This test aims to determine whether a reflection indicator is a good measure or not based on the assumption that construct measurements must have a strong relationship (Ghozali & Latan, 2015). The discriminant validity test was carried out using the Fornell-Larcker criteria and the expected cross loading value was more than 0.7, with the conclusion that the AVE square root value of each construct was greater than the correlation between that construct and other constructs (Wong, 2013).

Reliability Test

In determining the level of stability of a study of the measuring instrument used to see a particular symptom or event, a reliability test is used. In SEM analysis, reliability is measured using a value of 0.7 and a value of Cronbach's alpha composite reliability value of 0.7 (Ghozali & Latan, 2015).

Structural Inner Models

Structural Inner Model is an analysis that aims to examine the effect of a latent variable on other latent variables. In this analysis, measurements were made using the r^2 value and the Q^2 test. The next test is to look at the t-statistic value for each relationship path. The t-statistic value will be compared with the t-table value (Lansia et al., 2021) . The hypothesis used in this study are:

H1 : The effectiveness of the role of farmer groups has a positive and significant effect on the performance of rice farming.

H2 : The effectiveness of the role of farmer groups has a positive and significant effect on the performance of rice farming through process innovation.

RESULT AND DISCUSSION

The Effectiveness of the Role of Farmer Groups

Group effectiveness or the achievement of conditions or changes (physical and non-physical) that satisfy group members is the group's success in fulfilling its goals (Yusuf, 2018; Danim, 2012). In this case it is stated that the effectiveness of the role of farmer groups will describe the success of farmer groups in carrying out its role to achieve the goals that have been set. Based on the results of calculating the index score of all dimensions on the effectiveness of the role of farmer groups, the accumulation is obtained as follows.

Table 1. The Effectiveness of the Role of Farmer Groups

No	Farmer Group Role	Score Index (%)	Category
1	Group Productivity	82.60	Effective
2	Member Satisfaction	83.70	Effective
3	Member Spirit	83.10	Effective
	Average	83.13	Effective

Source: Primary Data Processed, 2022

The value of the effectiveness of the role of farmer groups through group productivity, member satisfaction and member spirit has a high index score percentage of 82.6%, 83.7% and 83.1%. The accumulated average effectiveness of the role of farmer groups is 83.13%. These results indicate that farmer groups in Kemumu Village have carried out their roles effectively.

The findings of this study support Hayati's research (2019) which found that farmer groups were very effective. Production, member satisfaction, and group spirit of farmer groups are used to determine their effectiveness; the greater these three indicators, the more productive, satisfied, and excited the group is.

Process Innovation

Based on Nabiu (2019), process innovation is the ability to create new ways and implement them in the production process up to product distribution and marketing, with the aim of reducing production costs and simultaneously increasing production quality. Based on the results of calculating the index score of all indicators in process innovation, the accumulation is obtained as follows.

Table 2. The Effectiveness of the Farmer Groups Role on Process Innovation

No	Innovation	Score Index (%)	Category
1	Inputs	85.60	High
2	Process	86.30	High
Average		85.95	High

Source: Primary Data Processed, 2022

The resulting index values for the input, process and output dimensions are 85.60%, 86.30% The average accumulated index score for the rice farming performance variable is 85.95%. These results are based on the category score index used, which indicates that process innovation is in the high category. Based on Purwanto (2008) the existence of farmer groups will influence innovations carried out by farmers in running farming businesses and based on research by Triyono & Rahmawati (2018) innovations carried out by these farmers will have a good impact on farmers, namely farmers are able to have production facilities such as fertilizers and pesticides, being able to work together through group dynamics that are formed and being able to increase farmers' income, where this ability according to Gultom & Mayasari (2021) will affect farming performance.

The Performance of Rice Farming

Hasibuan (2016) reveals that performance is an achievement, which is a level of performance obtained after completing a task effectively and efficiently. Based on Putri et al., (2019), if an organization/institution has succeeded in implementing and achieving the targets that must be implemented, then it can be said that the organization/institution is classified as good. The results of calculating the index value of the 4 indicators contained in the output get a percentage of 76.96%. Based on predetermined criteria stated that the performance of farming as measured by the output has a high category. Based on the research of Bani et al., (2020) states that farming performance can be seen from the success of farming in carrying out farming activities which consist of the beginning of farming activities until the desired results are obtained. It was stated that in this study rice farmers in Kemumu Village had been able to carry

out a series of farming activities properly so that they had high performance. This is in line with research by Dewi et al., (2017) which states that the performance of rice farming is included in the high category, where performance is seen through the productivity and efficiency of farming. High performance describes the ability of a farmer to run rice farming.

Structural Equation Modeling (SEM) Analysis with PLS

Analysis tool for structural equation modeling (SEM) Modeling is fairly difficult. There will be multiple stages to this analysis, including measuring the exterior model and the structural inside model.

Outer Measurement Model

A measurement model called the measurement outer model can be utilized to see and demonstrate how research indicators or visible variables represent latent variables. In this instance, an indicator or manifest variable's validity and reliability values will be seen.

Validity Test

The research instrument's capacity to measure what should be measured was examined through the validity test. Convergent validity and discriminant validity were the two components of the validity test used in this study.

Convergent Validity

The loading factor of each item and the AVE value are used to determine the convergent validity value, with the requirement that the value be more than 0.5 to be considered valid. The following figure displays the loading factor values for the indicators utilized in this investigation.

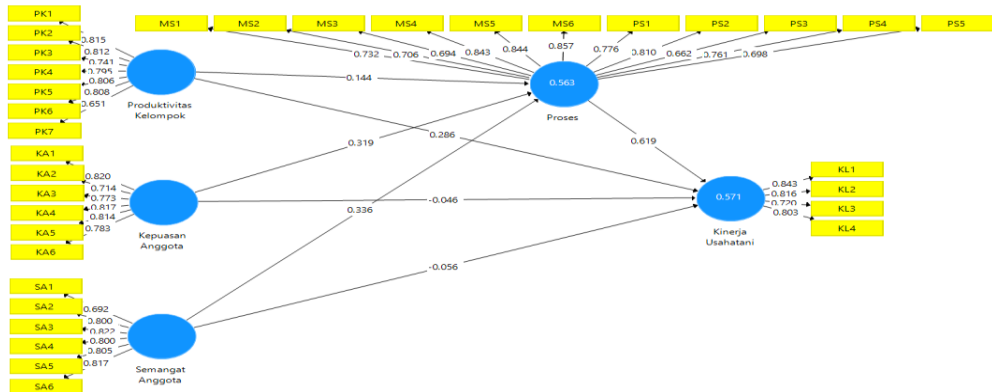


Figure 1. PLS Algorithm Display

According to Chin (1998) in Gozali & Latan (2015), the loading factor value in the preliminary phases of constructing a measuring scale is considered valid if it is greater than 0.5. Figure 1 displays the results of the loading factor, which was obtained from each indicator in the construct employed in this work and has a value greater than 0.5. The indicators utilized in this study are said to be reliable, and the analysis can move on to the following phase.

Examining the Average Variance Extractor (AVE) value is the next convergence test to establish validity. The following table shows the calculated AVE value.

Table 3. Average Variance Extractor (AVE)

No	Build	AVE . score	Information
1	Member Satisfaction	0.620	VALID
2	Rice farming performance	0.635	VALID
3	Group Productivity	0.605	VALID
4	Process	0.585	VALID
5	Member Spirit	0.625	VALID

Source: Primary Data Processed, 2022

Based on Ghozali & Latan (2015) stated that the valid AVE value is more than 0.5. The AVE value obtained at the construct level in Table 1 is above 0.5. This value states that the construct used in the study can be said to be valid.

Discriminant Validity

In this test, the Fornell Lacker Criterion and Cross Loading values will be seen. The Fornell Lacker Criterion Test will show the AVE root value of each construct used, this is based on Ghozali & Latan (2015) which states that a construct that is said to be valid is a construct that has more AVE root values than the correlation between constructs. The results showed that there was a Fornell Lacker Criterion which had a smaller AVE square root value than the correlation between other constructs. These results require elimination of the smallest indicators, namely indicators PK7, KA2 and KA3.

The next Discriminant Validity test is to see the value of the cross loading results. In this test, the indicator correlation value with the variable itself must be higher than the other variables. According to the findings of the study, the relationship between each indicator and its own variable is greater than its relationship to other factors. This finding shows the validity of each indicator used in this study.

Test Reliability

The accuracy and consistency of a measurement tool are shown by its reliability. Reliability testing is carried out in 2 stages, namely looking at the

Cronbach's alpha value and also the composite reliability value. The resulting value of each construct used in this study has shown a number of more than 0.7. These results state that the constructs in this study are reliable and can be continued with other tests (Ghozali & Latan (2015)).

Table 4. Reliability

No	Build	Cronbach's Alpha	Composite Reliability	Information
1	Member Satisfaction	0.877	0.907	Reliable
2	Rice farming Performance	0.809	0.874	Reliable
3	Group Productivity	0.890	0.914	Reliable
4	Process	0.928	0.939	Reliable
5	Member Spirit	0.880	0.909	Reliable

Source: Primary Data Processed, 2022

Structural Inner Models

Structural Inner Model is a test used to see and show the power of estimation between latent or construct variables. In the Structural Inner Model, the goodness of the model will be seen by using the R^2 value to see the predictive power of the structural model and Q^2 to see the relevance of the prediction, besides that it will also be seen the magnitude of the influence between exogenous and endogenous variables through the t statistical test.

Value of R Square (R^2) and Q Square (Q^2)

The rice farming performance variable obtained an R^2 value of 57.2%. This percentage states that the variable performance of rice farming can be explained by endogenous variables of 57.2% while the remaining 42.8% is explained by other variables not used in this study. Based on Chin (1998) in Ghozali & Latan (2015) these results state that the R^2 in the model used in this study is included in the medium category.

The next value is Q^2 which gives a result of 0.35 on the performance variable of rice farming. This value states that the model used in this study has good predictive relevance because the Q^2 value is more than 0. Based on Ghozali & Latan (2015) the results of the Q^2 value obtained on the performance variable of rice farming are in the strong category.

Hypothesis Testing

The t-statistical test is used to test the hypothesis. The test results will show how much the effectiveness of farmer groups in influencing farming performance is compared to the effectiveness of farmer groups in influencing

farming performance through process innovation. The following figure 2 illustrates this influence.

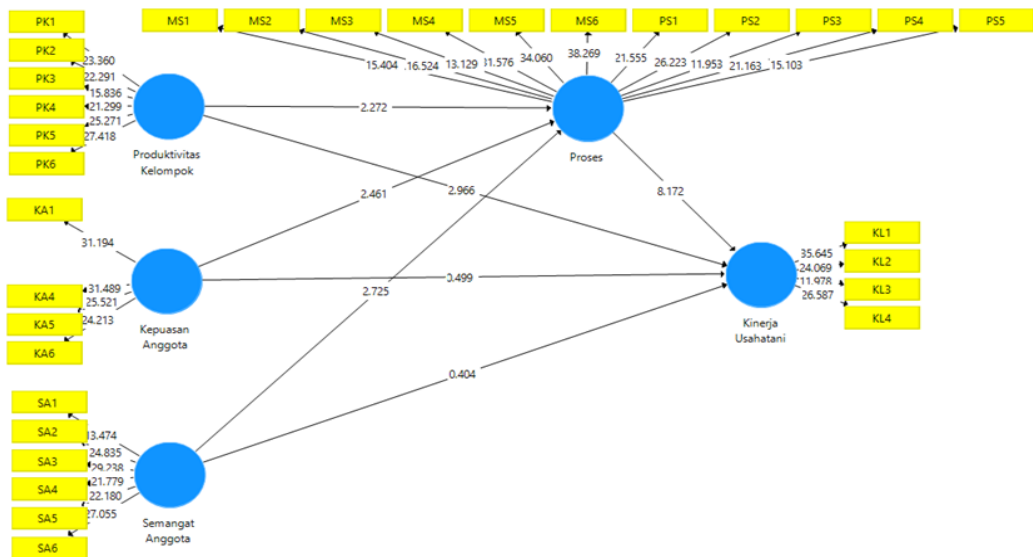


Figure 2.

Bootstrapping the Effect of Effectiveness of the Role of Farmer Groups on the Performance of Rice Farming

The t-statistic value in Figure 2. illustrates how the effectiveness of farmer groups' roles has an impact on farming performance. In this study, two impacts will be put to the test the direct impact of farmer groups' contributions to rice farming performance and the indirect impact of their contributions on rice farming performance as a result of process innovation.

Effectiveness of the Farmer Groups Role on the Performance of Rice Farming

Simultaneous testing was carried out to find out whether the effectiveness of the role of farmer groups affected farming performance, where this effectiveness was seen through group productivity, group member satisfaction and member enthusiasm.

Table 5. presents statistical values ranging from the original sample to p values. It can be seen in the table, the results of the original sample (O) obtained a value of -0.055; 0.276: -0.037. These results state that simultaneously the variables of group productivity, member satisfaction and member spirit have a positive and negative effect on the performance of rice farming. The next value is the t statistic, which can be seen in Table 6. that not all t statistical values show a value that is greater than the t table, which is 1.96.

Table 5. The Effectiveness of the Role of Farmer Groups on Farmer Performance Simultaneously

Influence	Original Sample (O)	Average Sample (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P value
Member Satisfaction -> Performance farming paddy	-0.055	-0.056	0.11	0.499	0.618
Group Productivity -> Performance farming paddy	0.276	0.272	0.093	2.966	0.003
Member Spirit -> Rice farming performance	-0.037	-0.035	0.092	0.404	0.686

Source: Primary Data Processed, 2022

Statistical test results stated that hypothesis one was rejected, which means the effectiveness of the role of farmer groups did not have a positive and significant effect on the performance of rice farming. Based on the study findings, farmer groups have not succeeded in increasing the performance of rice farming in the study area when measured by the factors of group productivity, member satisfaction, and member spirit. The findings of this study concur with research by Sopyan et al., in 2021 which stated that the function of farmer groups had not succeeded in achieving production which would increase farmer income after joining, so the effectiveness of farmer groups in increasing farmer income was low.

Effectiveness of the Farmer Groups Role on the Performance of Rice Farming Through Process Innovation

Purwanto (2008) states that the existence of farmer groups will influence the innovations made by farmers. The better the farmer groups carry out their roles, the higher the level of innovation carried out by farmers. This innovation will have an impact on increasing production results, where innovation in cultivation activities will be better. Based on Heriaty & AR (2021), the application of innovation will affect the level of rice production and productivity which will describe the level of performance of rice farming carried out by farmers in running their farming business. Therefore the next test is to see the indirect effect of the effectiveness of the role of farmer groups on farming performance through process innovation, where effectiveness is seen through group productivity, member satisfaction and member spirit. In addition, this test will produce whether the process innovation variable acts as a mediation or not. The statistical test results generated through the bootstrapping test can be seen in the following table.

Table 6. Effectiveness of the Role of Farmer Groups on Farming Business Performance Through Process Innovation

Influence	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P value
Member Satisfaction -> Process Innovation -> Rice Farming Performance	0.186	0.185	0.077	2.417	0.016
Group Productivity -> Process Innovation -> Rice Farming Performance	0.118	0.119	0.054	2.178	0.030
Member Spirit -> Process Innovation -> Rice farming performance	0.201	0.205	0.081	2.487	0.013

Source: Primary Data Processed, 2022

Table 6. presents statistical values ranging from the original sample to p values. It can be seen in the table, the results of the original sample (O) obtained a value of 0.186; 0.118; 0.201. According to these findings, the performance of rice farming is positively impacted by the variables of group production, member satisfaction, and member spirit through process innovation. The next value is the t statistic, which can be seen in Table 6. all t statistic values indicate a value greater than t table, which is 1.96, indicating that there are multiple variables that are simultaneously having a positive and significant impact. These findings indicate that the second hypothesis is correct, indicating that farmer groups' ability to impact rice farming performance through process innovation is effective.

Based on Table 5. it is evident that there is a direct correlation between farmer groups' effectiveness and rice farming performance as measured by group production, which generates statistics of 2.966, member satisfaction of 0.499, and member spirit of 0.404. The results of the comparison of direct and indirect effects between these variables stated that the direct effect was greater than the indirect effect because the results of the indirect effect test produced a t-statistic value of group productivity of 2.178, member satisfaction 2.417 and member spirit 2.487. Based on Andriani and Putra (2019) states that if the direct effect is smaller than the indirect effect, then the intervening variable is included in the full mediation category. Thus it is simultaneously stated that process innovation is a mediation in the full mediation category in influencing the effectiveness of the role of farmer groups on the performance of rice farming. These results illustrate that if you want to improve farm performance, you must first improve process innovation. The higher the process innovation due to the role of farmer groups, the higher the performance of rice farming.

The indicator in the first indication with a value of 0.821 represents the loading factor value of the effectiveness of the role of farmer groups on the highest group productivity. These findings show that farmer groups have successfully addressed the learning requirements of farmers. Farmers as members of farmer groups feel helped in terms of the need to learn and increase knowledge that will increase the ability of farmers to carry out farming activities. Fulfilling these learning needs will lead to a new ability or innovation in carrying out rice farming activities (Wastika et al., 2014).

The indicator with the highest loading factor is found in the fourth indicator on the dimension of member satisfaction, which is 0.848. This value states that farmers are satisfied with the role of farmer groups so that they always cooperate with providers of agricultural facilities and services determined by farmer groups. An example of process innovation carried out by farmers in this collaboration is the use of quality seeds in farming activities, where the use of quality seeds will benefit farmers who are expected to increase production. Based on Mulyana et al., (2021) states that the use of seeds that are not of good quality causes a decrease in crop yields, this is because the use of quality seeds will affect the quality and quantity of rice production.

The indicator with the highest loading factor is found in the third indicator on the member spirit dimension, which is equal to 0.822. These findings show that farmers actively participate in all teaching and learning activities carried out by farmer organizations. The excitement with which these learning exercises are carried out demonstrates the farmers' interest in participating in farmer groups' activities. Enthusiasm for these activities will keep farmers active and will have an impact on increasing the knowledge gained, this is based on Is et al., (2021) which state that the level of knowledge influences the innovations carried out by rice farmers.

In addition, the indicator with the highest loading factor on the process innovation dimension is the MS6 indicator of 0.857. These results suggest that farmers can implement process innovation as a result of implementing the role of farmer groups in the form of timely pesticide applications, namely when there are signs of starting to attack pests. Where this time is the right time to apply pestidia because it has a low pest attack intensity. This is also supported by research by Satyani et al., (2019) which states that pest control using pesticides when attack symptoms appear or when other controls are no longer able to control pests is a good way to maintain ecosystem balance and environmental sustainability, because in At that time, the intensity of attacks was still relatively low and generally had not yet reached the economic threshold.

CONCLUSION AND SUGGESTION

Conclusion

Based on the results obtained in this study, it can be concluded as follows.

1. The effectiveness of the role of farmer groups in Kemumu Village is included in the effective category. These results indicate that the farmer groups in Kemumu Village have carried out their roles well. However, in the field there are still members who are less active so that farmer groups must carry out activities that are more profitable to attract active members.
2. Process innovation carried out by rice farmers in Kemumu Village is relatively high. These results indicate that farmers have implemented process innovation in their farming activities. However, in the field there are still many farmers who have not been able to adopt innovations due to limited opportunities, time and costs.
3. The performance of rice farming in Kemumu Regency is high. The high performance of this farming business illustrates that farmers have been successful in carrying out farming activities. However, currently there are still farmers who have not been able to carry out farming activities to the fullest due to limited irrigation water, knowledge and also costs.
4. The results of the analysis of the influence of the effectiveness of the role of farmer groups on farming performance that has been carried out state that simultaneously the effectiveness of the role of farmer groups has a negative and insignificant effect on farming performance. These results state that farmer groups must look for problem points that become obstacles to farming performance, so that farmer groups can play a maximum role.

Suggestion

In an effort to increase the effectiveness of the role of farmer groups, farmer groups must always be able to provide and meet the learning needs of farmers regarding farming activities, establish cooperation with providers of agricultural facilities and services that make it easier for farmers to carry them out. agriculture, and encourage farmers to be active in activities carried out by farmers. farmer. In addition, farmer groups must always encourage farmers to accept and implement process innovation in farming activities because the results of the study show the effectiveness of the role of farmer groups does not affect farming performance, but becomes influential when there is mediation by process innovation.

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