

---

## **THE INFLUENCE OF THE ROLE OF FIELD AGRICULTURAL EXTENSION WORKERS AS MEDIATORS ON THE SUCCESS OF THE RICE FARMING PROGRAM**

**Sri Dewi Maharani, Ainun Sa'adah, Ibnu Aqiel, Mukhammad Khoirudzaki,**

**Achmad Faqih**

Faculty of Agriculture Gunung Jati Swadaya University, Indonesia

Email: achmad.faqih@ugj.ac.id

---

### **Abstract**

Field agricultural extension workers are obliged to have learning concepts to support their role as mediators who will be a bridge in the process of diffusion, innovation, and problem solving in an organization. A mediator is expected to mediate what is needed by farmers and help overcome problems that arise and require appropriate solutions in handling them in the field. The objectives of this study are: 1) to determine the influence of the role of field agricultural extension workers as mediators in the availability of capital sources, study programs, technology dissemination, agro-industry, and simultaneous marketing of agricultural products on the success of the Rice Farming program. 2) knowing the influence of the role of field agricultural extension workers as mediators in the availability of capital sources, study programs, technology dissemination, agro-industry, and partial marketing of agricultural products on the success of the Rice Farming program. The research design used in this study is descriptive research with a quantitative approach. The population used is the Sri Mulya farmer group, Bodesari Village, Plumbon District, Cirebon Regency. The section examined is on the effect of the role of field agricultural extension workers as mediators on the success of rice farming programs. The number of samples used was 32 respondents. The study will be conducted in March - May 2023. Data analysis techniques use validity, reliability and regression tests. The results showed that: 1) the influence of the role of field agricultural extension workers as mediators simultaneously (availability of capital sources, study programs, technology dissemination, agro-industry, and marketing of agricultural products) affects the success of the rice farming program. 2) the influence of the role of field agricultural extension workers as partial mediators (availability of capital sources, study programs, technology dissemination, agro-industry, and marketing of agricultural products) on the success of the rice farming program.

**Keywords** : Mediator; LPP; Role; PPL; Program.

---

### **INTRODUCTION**

Agriculture is a type of production activity based on the growth process of plants and animals. Farmers regulate and intensify the growth of plants and animals in their farming. According to HERNANTO, (2003) agricultural business is defined as an organizational unity between work, capital and management aimed at obtaining production in the agricultural field. In line with this understanding, Soetriono, (2017), stated that there are four things that need to be considered for agricultural business development, namely: (1) farm business organization focused on managing production

elements and business objectives, (2) patterns of farm land ownership, (3) farm work focused on the distribution of labor and unemployment in farming, and (4) farm business capital focused on the proportion and sources of farmer capital.

Development whatever understanding is given to it, always refers to efforts to improve, especially improvements in the quality of human life, both physically, mentally, economically and socio-culturally. Related to this understanding, the purpose of agricultural extension is directed at the realization of technical improvements in farming (Better Farming), improvement of farming business (Better Business) and improvement of farming life and its community (Better Living).

Kartasapoetra (1994) in Wibowo & Pratiwi, (2018), argues that extension activities in agricultural development act as a bridge that connects the practices carried out by farmers with farmer knowledge and technology that always develops into the needs of these farmers. Agricultural extension workers are people who work in extension activities who communicate on extension targets, so that the targets are able to carry out the decision-making process correctly.

## RESEARCH METHOD

This research was conducted in Bodesari Village, Plumbon District, Cirebon Regency. Bodesari Village is located in the UPTD Pertanian Plumbon-Cibeureum work unit, this location was chosen purposive sampling, meaning it was done intentionally. The selection of the research site was based on the consideration that Bodesari Village is one of the locations where the Rice Farming Program (LPP) is implemented. The time for this research to take place is March 2023 to May 2023.

This study used a quantitative research design. According to Sugiyono, (2018) in Imron, (2019), it is called quantitative because research data is in the form of numbers and analysis using statistics. According to Imron, (2019) the problem-solving procedure in the descriptive research method is to describe the object of research at the time of the current situation based on facts as they are, then analyzed and interpreted.

The number of farmers who are members of the Sri Mulya Farmer Group, Bodesari Village, Plumbon District, Cirebon Regency is 32 people. Because there are less than 100 members, census sampling is used, where all group members are sampled. If the population is less than 100, it is better for all populations to be sampled for the study.

Data collection is a systemic and standard primary data procurement procedure for research purposes. The required data type consists of primary data and secondary data. The method of data collection in this study is as follows: (1) Primary Data, namely the main research data obtained through interviews with respondent farmers, using a list of questions that have been prepared before. (2) Secondary Data is a source of research data obtained through intermediate media or indirectly in the form of books, records, existing evidence, or archives that have been publicly published.

## RESULT AND DISCUSSION

### **Description of the Role of Extension Workers as Mediators for the Success of the Rice Farming Program**

The role of extension workers as mediators is a form of the role of an extension

worker who facilitates and serves the needs or needs of farmers in agricultural activities, especially businesses in agriculture. The role of extension workers in facilitating farmers includes the availability of capital sources, study programs, technology dissemination, agro-industry, and marketing of agricultural products. From the results of the questionnaire given to 32 respondents, members of the Sri Mulya Farmer Group were included in the good category, with a score of 344.30 (85.16%) from an expected score of 405. For more details, the results of respondents' assessment of the role of field agricultural extension workers as mediators can be seen in Table 1.

**Table 1. Response of Sri Mulya Farmer Group Members to the Role of Extension Workers as Mediators**

No.	Components of the Extension Worker's Role as a Facilitator	Score		Percen(%)	Categori
		Hope	Real		
1.	Availability of Capital Sources	70	60,03	87,18	Baik
2.	Saprodi	80	63,68	79,60	Baik
3.	Technology Dissemination	80	63,75	79,68	Baik
4.	Agroindustri	90	79,03	87,81	Baik
5.	Marketing of Agricultural Products	85	77,81	91,54	Baik
The Role of Extension Workers as Facilitators		405	344,30	85,16	Baik

From Table 1, an overview of the influence of the role of field agricultural extension workers as mediators in the Mekar Mukti group of Bodesari Village, Plumbon District, Cirebon Regency is as follows:

1. The role of extension workers as mediators based on indicators of the availability of capital sources obtained a score of 60.03 (87.18%) from the expected score, and was classified as good. This means that the role of field agricultural extension workers as mediators in the Sri Mulya Farmer Group is classified as good. The results of respondents' assessment of the role of extension workers as mediators in the availability of capital sources in the Sri Mulya Farmer Group showed that most group members stated that they were classified as good.
2. The role of extension workers as mediators based on the indicators of production infrastructure facilities (saprodi) obtained an expectation score of 63.68 (79.60%) from the expected score, and was classified as good. This means that the role of field agricultural extension workers in the Sri Mulya Farmer Group in carrying out their duties as mediators is good. The results of respondents' assessment of the role of extension workers as mediators in the procurement of study programs in farmer groups showed that most members of the Sri Mulya Farmer Group stated that they were classified as good.
3. The role of extension workers as mediators based on technology dissemination indicators obtained a score of 63.75 (79.75%) from the expected score, and was classified as good. This means that the role of field agricultural extension workers in the Sri Mulya Farmer Group in carrying out their duties as mediators is good.
4. The role of extension workers as mediators based on indicators of agro-industrial facilities obtained an expectation score of 79.03 (87.81%) from the expected score, and was classified as good. This means that the role of field agricultural extension workers in the Sri Mulya Farmer Group in carrying out their duties as mediators is classified as a good category. The results of respondents' assessment of the role of extension workers as mediators in the procurement of study programs in farmer groups

showed that most members of the Sri Mulya Farmer Group stated that they were classified as good.

5. The role of extension workers as mediators based on indicators of agricultural product marketing facilities obtained an expectation score of 77.81 (91.54%) from the expected score, and was classified as good. This means that the role of field agricultural extension workers in the Sri Mulya Farmer Group in carrying out their duties as mediators is classified as a good category

The results of respondents' assessment of the role of extension workers as mediators in the procurement of study programs in farmer groups showed that most members of the Mekar Mukti farmer group stated that they were classified as good. The number of members based on the classification of the role of field agricultural extension workers as mediators in the Mekar Mukti lumung group can be seen in Table 2.

**Table 2. Classification of the Role of Extension Workers as Mediators in Sri Mulya Farmer Groups**

No	The Role of Extension Workers	Jumlah (orang)	Persentase (%)
1.	Not Good (10% – 50%)	0	0,00
2.	Good enough (51% – 75%)	0	0,00
3.	Good (76%–100%)	32	100,00
Sum		32	100,00

Source : Primary Data Processing 2023

From the results of Table 2, it can be seen that the assessment of farmer group members on the role of field agricultural extension workers in carrying out their duties as mediators in the Sri Mulya Farmer Group as a whole is good. The results showed that the role of field agricultural extension workers as mediators in the Sri Mulya Farmer Group of Bodesari Village, Cibeureum District, Cirebon Regency, which includes the availability of capital, study programs, technology dissemination, agro-industry, and marketing of agricultural products, as a whole is in the Good category with a yield of 85.16%. This means that the role of field agricultural extension workers in carrying out their duties as mediators in the Sri Mulya Farmer Group is categorized as good.

Thompson, (2006), suggests that the role of extension workers as mediators is to help individuals or groups through the process of implementing changes in training. The participation between extension workers and related to group dynamics and the skills of extension workers themselves to help farmers move towards change.

Research by Padmaswari et al., (2018), that extension workers as mediators of agricultural businesses in charge of facilitating farmers, namely their roles as educators, mediators, motivators and evaluators are sought more through extension programs, so that farmers increase their interest in agriculture. Koutsouris et al., (2014), the purpose of his research is to investigate through a literature review, the role of intermediaries in agriculture and rural development. First of all a general view of the role of intermediaries (focusing on the two main types of intermediaries i.e. mediators and brokers), as described in the literature is provided. Mediators and brokers in agricultural literature are explored based on the change from reductionist to systematic science as well as from expert syndrome to participatory development.

### **The Influence of the Role of Field Agricultural Extension Workers as Mediators on the Success of the Rice Farming Program**

**Table 3. Simultaneous Significant Results of Test F**

ANOVA <sup>a</sup>					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	956.564	5	191.313	11.095	.000b
Residual	448.311	26	17.243		
Total	1404.875	31			

a. Dependent Variable: Program Usahatani Padi  
b. Predictors: (Constant), PHP, Agroindustri, KSP, Saprodi, Diseminasi Teknologi

Source : Data Analysis SPSS 25.00 for windows. 2023

The test result is F count showing a value of 11,095. so  $F_{\text{calculate}} > F_{\text{table}}$  (11,095 > 2.512) or  $\text{Sig } F < 5\%$  (0.000 < 0.05). This means that simultaneously or together the variables of availability of capital sources (X1), study programs (X2), technology dissemination (X3), agro-industry (X4) and marketing of agricultural products (X5) have a significant effect on the success variables of rice farming programs (Y). Because  $F_{\text{calculate}} > F_{\text{table}}$  and if the significance level  $< \alpha$  (0.05), the independent variable has an effect on the dependent variable.

This study shows that there is a significant influence between the role of field agricultural extension workers as mediators simultaneously on the success of rice farming programs as follows:

1. The role of PPL in the availability of capital sources (formal and informal financing sources, partnering with agricultural product traders, utilization of capital sources) has been going quite well, which has a real effect on the success of rice farming programs. The results in the field prove that the role of PPL in facilitating sources of financing originating from banks in the form of loans and traders of agricultural products in collaboration with farmers so as to provide convenience to farmers in obtaining capital and farmers can make the best use of available capital.
2. The role of PPL in the provision of saprodi (making proposals for saprodi procurement assistance, procurement of independent saprodi, making storage warehouses for agricultural study programs) has been going quite well, which has a real effect on the success of the rice farming program.

The results in the field prove that the role of extension workers in making proposals for the procurement of saprodi so as to make the availability of saprodi guaranteed for members of farmer groups where the saprodi is stored in the saprodi storage warehouse.

1. The role of PPL in technology dissemination in the global era provides information in a short or fast time, in other words, technology dissemination has a real effect because it is needed in the success of rice farming programs to provide information needed by the community. The results in the field prove that the role of extension workers in providing planting pattern information from social media and internet media contained in the technology dissemination program is needed because it provides optimal benefits for the community.
2. The role of PPL in agro-industry is a very productive activity in increasing income and value of a product. In the agro-industry program, this study is real, because it responds quite well to the success of the rice farming program. The results in the field prove that the role of extension workers in providing agro-industrial facilities has an impact on assessing a product and increasing community income.
3. The role of PPL in the scope of marketing agricultural products in this study is real because the product marketing system, partner marketing system that occurs is more

advanced before the research occurs. The results in the field prove that the role of extension workers in providing advice on the marketing of agricultural products has a positive impact on marketing products and partner marketing systems.

The results of this study are in accordance with Wahdjanti's opinion in Dewi et al., (2017), stating that the most important purpose of agricultural extension is for dynamics in changes in farmers as the main actors of agricultural development and business actors and their families. The results of this research are supported by the results of (Halimah & Subari, (2020) research, the role of field agricultural extension in the development of rice farmer groups, this study aims to determine the role of field agricultural extension workers on rice field farmer groups, know the influence of the role of extension workers on the success of the development of rice field farmer groups, know the obstacles faced by extension workers in carrying out their main duties and functions to develop potential farmers and agriculture. In line with the results of research by IDAYANTI, (2019) this study aims to analyze the level of role of field agricultural extension workers, the development of farmer groups and the relationship between the role of field agricultural extension workers and the level of development of farmer groups in Sukoharjo Regency.

## Regression Equation

**Table 4. Regression Equation**

<b>Coefficients<sup>a</sup></b>					
Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error			
1 (Constant)	75.266	19.339		3.892	.001
KSP	-.395	.127	-.370	-3.102	.005
Saprodi	-3.656	1.101	-3.870	-3.321	.003
Diseminasi	3.791	1.130	3.915	3.356	.002
Teknologi					
Agroindustri	.792	.141	.632	5.638	.000
PHP	-.446	.138	-.394	-3.235	.003

a. Dependent Variable: Program Usahatani Padi

Source : Data Analysis SPSS 25.00 for windows. 2023

The interpretation of the regression equation model above is as follows:

1. The coefficient value of 75,266 states that, if the variables of availability of capital sources, study programs, technology dissemination, agro-industry, and marketing of agricultural products have a value of 0, then the variable value of the success of the rice farming program is 75,266 units.
2. The value of the regression coefficient on the variable availability of capital sources (X1) increased by 1 unit will reduce the success of the rice farming program by 0.395 units.
3. The value of the regression coefficient in the saprodi variable (X2) is increased by 1 unit, so it will increase the success of the rice farming program by 3,791 units.
4. The value of the regression coefficient in the technology dissemination variable (X3) is increased by 1 unit, so it will increase the success of the rice farming program by 0.395 units.
5. The value of the regression coefficient in the agro-industrial variable (X4) increased by 1 unit will increase the success of the rice farming program by 0.792 units.

**The value of the regression coefficient in the agricultural product marketing variable (X5) increased by 1 unit will reduce the success of the rice farming program by 0.446 units.**

Based on the results of the regression equation data, it can be concluded that every increase in 1 unit variable of the availability of individual capital sources has a partial effect on decreasing the success of the rice farming program by 3,102 units, every increase of 1 unit of saprodi variable (production infrastructure) has a partial effect on decreasing the success of the rice farming program by 3,321 units, every increase of 1 unit of technology dissemination variable has a partial effect For the increase in the success of the rice farming program by 3,356 units, every increase in 1 unit of agro-industrial variables has a partial effect on the increase in the success of the rice farming program by 5,638 units, every increase of 1 unit of agricultural product marketing variables has a partial effect on the decrease in the success of the rice farming program by 3,235 units. The availability of capital sources for members of the Mekar Mukti granary affects the success of the rice farming program, the influence of the availability of capital sources in carrying out every activity that has been planned by members of the Sri Mulya Farmer Group, the availability of capital sources with indicators including: formal and informal financing sources with several sub-indicators, namely: banking, relatives and friends. Agricultural product traders with several sub-indicators, namely: companies and middlemen, then utilization of capital sources with several sub-indicators, namely: utilization of own capital, utilization of other sources of financing. Saprodi with indicators including: making proposals for spraying procurement assistance with several sub-indicators, namely: facilitated by extension workers and facilitated by village governments. Procurement of independent study programs with sub-indicators, namely: personal funds, cooperation with other farmers. Making a saprodi storage warehouse with several sub-indicators, namely: overcoming the scarcity of saprodi, guaranteed saprodi inventory. Technology Dissemination with indicators including: selection of superior seeds and soil management with several sub-indicators, namely: selection of superior seed varieties, nutrient control. Technology planting and fertilization patterns with several sub-indicators, namely: planting patterns used, organic and inorganic fertilization. Management of irrigation and pest control with several sub-indicators, namely: irrigation of rainfed systems and pumps, integrated pest control. Harvest and post-harvest handling with several sub-indicators: harvest handling, post-harvest handling. Agroindustry with indicators including: product quality with several sub-indicators, namely: the number of products (rice) milled, the amount of rice produced. The availability of jobs for farming families with several sub-indicators, namely: labor employed, labor wages. Added value for farmers with several sub-indicators, namely: increased income, farmer household profits. Then Marketing Agricultural Products with indicators including: analysis of market behavior with several sub-indicators, namely: market behavior activities, pricing activities and payment systems. Cooperation of marketing institutions with several sub-indicators, namely: wholesalers, collectors. Marketing channels with several sub-indicators, namely: through intermediaries, without intermediaries. The results of the study are supported by the opinion of Nurlaili & Wahjuti, (2018) *in* Liow et al., (2017), stating that the most important purpose of agricultural extension workers is for the dynamics of agricultural extension and changes in farmers as the main actors of agricultural development and business actors and their families. In line with the results of Sibarani et al., (2022), regarding the role of extension workers in increasing rice

production in Anese Village, West Andolo District, South Konawe Regency, the results of this study show that extension workers in Anese Village are conducting educational activities to increase rice production, disseminating information to farmers about extension activities and increasing rice production, actively communicating with farmers about the problems faced and motivate and monitor farmers in carrying out their farming business (Febiana, 2021).

**Koefisien Determinasi (R<sup>2</sup>)**

**Table 5. Koefisien Determinasi (R<sup>2</sup>)**

<b>Model Summary</b>						
Mo del	R	R Square	Adjusted	R Square	Std. Error of the Estimate	
1	.825 <sup>a</sup>	.681	.620		4.15244	

a. Predictors: (Constant), PHP, Agroindustri, KSP, Saprodi, Diseminasi Teknologi

Source : Data Analysis SPSS 25.00 for windows. 2023

Based on the data of table 16 above, in detail can be described as follows:

1. The strong influence of the variable role of extension workers as mediators (availability of capital sources, study programs, technology dissemination, agro-industry, marketing of agricultural products) on the success of rice farming programs is shown by the coefficient of simultaneous determination (R<sup>2</sup>) of 0.681, this shows a 'strong' influence of 0.60-0.80. The magnitude of the influence of the role of extension workers as mediators (availability of capital sources, study programs, technology dissemination, agro-industry and marketing of agricultural products) with the success of the rice farming program with a simultaneous determination coefficient of R<sup>2</sup> of 0.681 or 68.10% means that the influence / contribution of the variable role of extension workers as mediators (availability of capital sources, study programs, technology dissemination, agro-industry and marketing of agricultural products) with the success of the rice farming program of 68.10% and the remaining 31.90% were influenced by other variables outside the study variables.
2. This study shows that there is a significant influence between the role of field agricultural extension workers simultaneously on the success of rice farming programs. The role of field agricultural extension workers as mediators for farmer groups has succeeded in running a rice farming program at the Sri Mulya Farmer Group in Bodesari Village, Plumbon District, Cirebon Regency to improve their standard of living, the program activities received positive responses from members of the Mekar Mukti granary running well.

The results of this study are in line with the research of Simpson (2002), which concluded that the level of application of field agricultural extension workers (PPL) to field school programs in Africa is good, in terms of disseminating information/innovation, facilitating supervision, monitoring and evaluation.



**Table 6. Partial Significant Results of T Test**

Model	Coefficients <sup>a</sup>		T	Sig.
	Unstandardized Coefficients	Standardized Coefficients		
	B	Std. Error	Beta	
1 (Constant)	75.266	19.339		3.892 .001
KSP	-.395	.127	-.370	-3.102.005
Saprodi	-3.656	1.101	-3.870	-3.321.003
Diseminasi Teknologi	3.791	1.130	3.915	3.356 .002
Agroindustri	.792	.141	.632	5.638 .000
PHP	-.446	.138	-.394	-3.235.003

a. Dependent Variable: Program Usahatani Padi

Source : Data Analysis SPSS 25.00 for windows. 2023

Based on Table 6 above, it can be explained the influence between the independent variable on the dependent variable of Mekar Rice Farm partially :

### 1. The Effect of the Availability of Capital Sources (X1) on the Success of the Rice Farm Program (Y).

The calculated t value shows that the KSP variable (X1) is -3.102 standard value beta coefficient 0.127 when compared with the table t value, then  $t_{\text{calculate}} - 3.102 > 1.672$ ,  $H_0$  is rejected and  $H_a$  is accepted, meaning that the KSP variable partially has a negative but significant effect on the success of the Rice Farming program (Y) as evidenced by a  $\alpha$  of  $0.005 < 0.05$ . The results showed that the role of field agricultural extension workers in the availability of agricultural capital and the success of the rice farming program had an unsatisfactory but influential influence, because without the availability of capital sources, the farming business process would not run well.

The results in the field prove that the availability of capital sources carried out by the Sri Mulya Farmer Group is running well, such as in improving the management of agricultural capital sources.

In line with the results of Hanafi's research *in* La Jauda et al., (2016), states that the source of capital formation can come from one's own, credit, and capital lease contracts from lease contracts are regulated within a certain period of time until the borrower can return, so that installments belong to the capital owner. Meanwhile, agricultural business capital comes from own capital and borrowed capital. Own capital is the capital issued by the farmer himself which comes from savings or leftovers from previous farming results.

The results of this research are supported by the results of Siagian et al., (2018) research, factors that influence rice farmers in utilizing capital sources. This study aims to determine the factors that influence rice farmers in utilizing available capital sources in Serang district production centers. The results of this study show that factors affecting the use of capital sources are land area and land status.

Hermawan & Andrianyta, (2013), a study aimed at analyzing the role of additional capital sourced from PUAP on rice farming income in Blitar and Ngawi Districts at the end of 2010. The results of Lin et al., (2020) research in China show that it may be easy to understand that increasing agricultural capital can almost certainly increase agricultural output and therefore agricultural GDP growth. Many

factors can affect agricultural productivity factor (TFP) performance. One of the most important factors is technological change (TC).

## **2. The Influence of Saprodi (X2) on the Success of the Rice Farm Program (Y)**

The calculated t value shows that the saprodi variable (X2) is -3.321 standard value, beta coefficient -3.870 when compared with the table t value, then t count  $-3.321 < 1.672$  H0 is rejected and Ha is accepted, meaning that the saprodi variable partially has a negative and significant effect on the success of the Rice Farming Program (Y) as evidenced by a  $\alpha$  of  $0.003 < 0.05$ .

The results showed that the variable role of field agricultural extension workers in saprodi on the success of the agricultural program has a negative influence, meaning that it is less satisfactory but influential, because without the provision of good study programs, the rice farming program will not run smoothly. The results in the field show that the study program carried out by the Sri Mulya Farmer Group is running well, such as providing with proposal submissions, procurement of study programs and providing warehouses to store study programs so that the scarcity of study programs can be overcome.

The results of this research are supported by the results of Kaffi & Zulfahmi, (2019), farmer Activities in the Procurement of Rice Production Facilities This study aims to determine farmers in procurement activities facing the scarcity of rice production equipment in Atari Jaya Village, Lalembu District. The results revealed that the activities of farmers in Atari Jaya village in procuring inputs based on the priority scale as follows: making input stock storage to be used in the next planting season, next activities using organic fertilizers to replace chemical fertilizers and maintain soil fertility and the last activity is to make proposals requesting assistance for rice production facilities to the government.

Results of research Reid et al., (2017). Infrastructure development can still be made possible through community initiatives, whereas individual farmers develop their areas, they can achieve good results by working as communities on development projects. Pooling resources together so as to create synergies and benefits by working together, for example, creating irrigation facilities requires a lot of capital that individuals may not be able to collect. However, if farmers work together to pool resources through a good management process, they will get the desired results.

## **3. The Effect of Technology Dissemination (X3) on the Success of the Rice Farming Program**

The calculated t value shows that the Technology Dissemination variable (X3) is 3.356 standard value beta coefficient 3.915 when compared with the table t value, then calculate  $3.356 > 1.672$ , H0 is rejected and Ha is accepted, meaning that the Technology Dissemination variable partially has a positive and significant effect on the results of research on Rice Farming (Y) as evidenced by a  $\alpha$  of  $0.002 < 0.05$ .

The results showed that the role of agricultural extension workers in technology dissemination on the success of the food lumbng program has a very large influence, but without the role of extension workers in facilitating technology dissemination, it will not run smoothly. The results in the field prove that the dissemination of technology carried out in the farmer group is going well, such as the application of technology, technology management, and post-harvest handling in the Sri Mulya Farmer Group.

The results of this research are supported by the results of Irwanto's in Said, (2017) a study on the adoption of Rice Cultivation in Batanghaari Regency This study

aims to 1). Knowing the adoption rate of rice cultivation technology innovation, 2). Analyze the relationship between the adoption of cultivation technology innovations with increased rice production. The results of this study show the application of average cultivation technology with good categories.

The results of Eigenbrod & Gruda, (2015) research, new technologies in horticultural research need to be adopted for urban horticulture to increase efficiency and productivity in the future. To improve sustainability, urban horticulture must be integrated into urban planning processes and supported through policies.

#### **4. The Effect of Agroindustry (X4) on the Success of the Rice Farm Program (Y)**

The calculated t value shows that the Technology Dissemination variable (X4) is 5.638 standard value beta coefficient 0.632 when compared with the table t value, then  $t_{\text{calculate}} 5.638 > 1.672$ ,  $H_0$  is rejected and  $H_a$  is accepted meaning that the Agroindustry variable partially has a positive and significant effect on the results of research on Rice Farming (Y) as evidenced by a  $\alpha$  of  $0.002 < 0.05$ . The results showed that the role of field agricultural extension workers in agro-industry on the success of the food lumbng program has a very large influence, because without the application of agro-industry, the rice farming program will not run smoothly. The results in the field prove that agro-industry in the field is running well. Soeharjono in Rahman (2015), stated that agroindustry itself is an effort to create a processed product in the form of finished goods and semi-finished goods whose main raw materials are agricultural products. The results of the study were supported by Sriningsih & Asngad, (2014) The Role of Rice Agroindustry in Supporting Food Security of Farmer Households. The results of this study show the ability; (1) Rice agroindustry grinding rice into rice is 64 tons of dry milled grain per month or 41.2 tons of rice per month, the number of rice products produced in Sumbang District is 1,030 tons of rice per month.

#### **5. The Effect of Agricultural Product Marketing (X5) on the Success of the Rice Farm Program (Y)**

The calculated t value shows that the PHP variable (X5) is -3.235 standard value, beta coefficient -0.394 when compared to the table t value, then  $t_{\text{calculate}} -3.235 > 1.672$ ,  $H_0$  is rejected and  $H_a$  is accepted, meaning that the PHP variable partially has a negative and significant effect on the results of research on Rice Farming (Y) as evidenced by a  $\alpha$  of  $0.002 < 0.05$ .

The results showed that the role of field agricultural extension workers in marketing agricultural products has an unsatisfactory influence but influences, because without the marketing of agricultural products, the rice farming program will run smoothly. The results in the field prove that the marketing of agricultural products carried out in farmer groups analyzes and collaborates with agricultural product traders so that the marketing of agricultural products runs well.

Jambeck et al., (2015) revealed that marketing is an organizational function and a collection of processes designed in order to plan, create, communicate, and deliver values to customers.

The results of this study are supported by research by Asmarantaka et al., (2017). Shows that marketing activities are the most important thing in the agribusiness system starting from the provision of production facilities (*input* subsystems), agricultural businesses (*onfarm*), marketing of agricultural products and processing of agricultural products and supporting subsystems. The results of the study are supported Paradigm of Rice Marketing System in Cibeber District, Cianjur Regency Hakim & Saragih,

(2019). The purpose of this study is to analyze the marketing channels, functions, structure, and behavior of rice marketing institutions in Cibeber sub-district.

Gong et al., (2020) Green Agricultural Product Based Marketing Strategy on Consumption Intention shows that Agricultural super docking mode is an effective mode of marketing green agricultural products. First, *docking* super agricultural companies can reduce transaction costs, and change the way agricultural products are transacted, which makes the cost of production factors obtained by production companies from outside continue to decline. Secondly, *the docking mode* of the farm Super enterprises can reduce intermediate circulation links, shorten the supply chain of green agricultural products, reduce circulation loss and circulation costs.

The results of this study show that there is a significant influence between the role of field agricultural extension workers partially on the success of the rice farming program. This shows that the variable role of field agricultural extension workers consists of the availability of capital sources, study programs, technology dissemination, agro-industry and marketing of agricultural products have a real effect on the success of the rice farming program. The role of field agricultural extension workers as facilitators for the success of the rice farming program in the Sri Mulya Farmer Group in Bodesari Village, Plumbon District, Cirebon Regency.

## CONCLUSION

Based on the results of research and discussion, it can be concluded as The role of extension workers as mediators in the availability of capital sources, study programs, technology dissemination, agro-industry, and marketing of agricultural products simultaneously affect the success of the rice farming program in Bodesari Village, Plumbon District, Cirebon Regency. The role of extension workers as mediators for technology and agro-industry dissemination has a partial positive effect on the success of the rice farming program while the availability of capital sources, study programs and marketing of agricultural products has a partial negative effect on the success of the rice farming program.

## REFERENCES

- Asmarantaka, R. W., Atmakusuma, J., Muflikh, Y. N., & Rosiana, N. (2017). Konsep Pemasaran Agribisnis: Pendekatan Ekonomi Dan Manajemen. *Jurnal Agribisnis Indonesia (Journal Of Indonesian Agribusiness)*, 5(2), 151-172.
- Dewi, S. P., Sugiarto, E., & Susanti, M. (2017). Pengantar Akuntansi. Bogor: In Media.
- Eigenbrod, C., & Gruda, N. (2015). Urban Vegetable For Food Security In Cities. A Review. *Agronomy For Sustainable Development*, 35, 483-498.
- Febiana, E. (2021). Peran Penyuluh Pertanian Pada Program Pelatihan Ipdmip (Integrated Participation Development And Management Irrigation Project) Di Jorong Pandam Limo Koto Pasaman. *Jurnal Pendidikan Tambusai*, 5(1), 212-220.
- Gong, Y. F., Gao, X. A., & Lyu, B. (2020). Teaching Chinese As A Second Or Foreign Language To Non-Chinese Learners In Mainland China (2014-2018). *Language Teaching*, 53(1), 44-62.
- Hakim, L., & Saragih, R. (2019). Pengaruh Citra Perusahaan Persepsi Harga Dan

- Kualitas Produk Terhadap Keputusan Pembelian Konsumen Npk Mutiara Di Ud. Bareleng Tani Jaya Batam. *Jurnal Ekobisma*, Vol. 6 (2).
- Halimah, S., & Subari, S. (2020). Peran Penyuluh Pertanian Lapang Dalam Pengembangan Kelompok Tani Padi Sawah (Studi Kasus Kelompok Tani Padi Sawah Di Desa Gili Barat Kecamatan Kamal Kabupaten Bangkalan). *Agriscience*, 1(1), 103–114.
- Hermawan, H., & Andrianyta, H. (2013). Peran Tambahan Modal Terhadap Pendapatan Usahatani Padi Di Kabupaten Blitar Dan Ngawi, Jawa Timur. *Jurnal Pengkajian Dan Pengembangan Teknologi Pertanian*, 16(2), 132–139.
- Hernanto, Y. (2003). Amandemen-Konstitusi Tahun 2000 Dan Rekonsiliasi Nasional Di Sri Lanka. Universitas Gadjah Mada.
- Idayanti, P. (2019). Pengaruh Kinerja Kelompok Dan Faktor Sosial Demografi Terhadap Pendapatan Masyarakat: Studi Di Tiga Kelompok Hutan Kemasyarakatan (Hkm) Kph Iii Bukit Punggur Kabupaten Way Kanan.
- Imron, I. (2019). Analisa Pengaruh Kualitas Produk Terhadap Kepuasan Konsumen Menggunakan Metode Kuantitatif Pada Cv. Meubele Berkah Tangerang. *Indonesian Journal On Software Engineering (Ijse)*, 5(1), 19–28.
- Jambeck, J. R., Geyer, R., Wilcox, C., Siegler, T. R., Perryman, M., Andrady, A., Narayan, R., & Law, K. L. (2015). Plastic Waste Inputs From Land Into The Ocean. *Science*, 347(6223), 768–771.
- Kaffi, S., & Zulfahmi, Z. (2019). Peningkatan Kualitas Beras Siger Berbasis Teknologi Asuh (Aman, Sehat, Utuh, Dan Halal). *Media Kontak Tani Ternak*, 1(2), 21–26.
- Koutsouris, A., Gidarakou, I., Grava, F., & Michailidis, A. (2014). The Phantom Of (Agri) Tourism And Agriculture Symbiosis? A Greek Case Study. *Tourism Management Perspectives*, 12, 94–103.
- La Jauda, R., Laoh, O. E. H., & Timban, J. F. J. (2016). Analisis Pendapatan Usahatani Kakao Di Desa Tikong, Kecamatan Taliabu Utara, Kabupaten Kepulauan Sula. *Agri-Sosioekonomi*, 12(2), 33–40.
- Lin, W., Huang, X., Fang, H., Wang, V., Hua, Y., Wang, J., Yin, H., Yi, D., & Yau, L. (2020). Blockchain Technology In Current Agricultural Systems: From Techniques To Applications. *Ieee Access*, 8, 143920–143937.
- Liow, S. S., Zhou, H., Sugiarto, S., Guo, S., Chalasani, M. L. S., Verma, N. K., Xu, J., & Loh, X. J. (2017). Highly Efficient Supramolecular Aggregation-Induced Emission-Active Pseudorotaxane Luminogen For Functional Bioimaging. *Biomacromolecules*, 18(3), 886–897.
- Nurlaili, N., & Wahjuti, U. (2018). Sikap Penyuluh Pertanian Terhadap Undang-Undang Nomor 23 Tahun 2014 Tentang Pemerintahan Daerah Di Kabupaten Malang. *Agriekstensia: Jurnal Penelitian Terapan Bidang Pertanian*, 17(1), 37–50.
- Padmaswari, N. P. I., Sutjipta, N., & Putra, I. (2018). Peranan Penyuluh Pertanian Lapangan (Ppl) Sebagai Fasilitator Usahatani Petani Di Subak Empas Buah Kecamatan Tabanan Kabupaten Tabanan. *Jurnal Agribisnis Dan Agrowisata (Journal Of Agribusiness And Agritourism)*, 7(2), 277–285.
- Reid, T., Munyanyi, M., & Mduluza, T. (2017). Effect Of Cooking And

- Preservation On Nutritional And Phytochemical Composition Of The Mushroom Amanita Zambiana. *Food Science & Nutrition*, 5(3), 538–544.
- Said, I. (2017). Warung Kopi Dan Gaya Hidup Modern.
- Siagian, V., Mulyaqin, T., & Pohan, A. (2018). Impact Government Policy Toward Competitiveness Of Rice Comodity In Banten Province. *Index*, 520.
- Sibarani, R., Cepriadi, C., & Kausar, K. (2022). Peran Penyuluh Dalam Keberdayaan Petani Padi Sawah Di Desa Belading Kecamatan Sabak Auh Kabupaten Siak. *Journal Of Agribusiness And Community Empowerment (Jace)*, 5, 87–95. <https://doi.org/10.32530/Jace.V5i2.471>
- Soetrisno, S. (2017). Daya Saing Agribisnis Kopi Robusta (Sebuah Perspektif Ekonomi).
- Sriningsih, E., & Asngad, A. (2014). Pemanfaatan Kulit Buah Pisang (*Musa Paradisiaca* L.) Dengan Penambahan Daun Bambu (*Emb*) Dan Em-4 Sebagai Pupuk Cair. Universitas Muhammadiyah Surakarta.
- Sugiyono. (2018). Metode Penelitian Dan Kuantitatif, Kualitatif, Dan R&D. Cv. Alfabeta.
- Thompson, S. (2006). *The Political Theory Of Recognition: A Critical Introduction*. Polity.
- Wibowo, E., & Pratiwi, D. D. (2018). Pengembangan Bahan Ajar Menggunakan Aplikasi Kvisoft Flipbook Maker Materi Himpunan. *Desimal: Jurnal Matematika*, 1(2), 147–156.

**Copyright holders:**

**Sri Dewi Maharani, Ainun Sa'adah, Ibnu Aqiel, Mukhammad Khoirudzaki, Achmad Faqih (2023)**

**First publication right:**

**Injurity - Interdisciplinary Journal and Humanity**



**This article is licensed under a Creative Commons Attribution-ShareAlike 4.0 International**