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THE FACTORS AFFECTING THE SPEED OF PPT INNOVATION ADOPTION IN THE RICE FIELD SL-PTT PROGRAM

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ABSTRACT

This study aims to determine: (1) the effect of the nature of innovation, the nature of potential users, innovation decision-making, communication channels and PPL qualifications simultaneously on the speed of adoption of PTT innovations in the lowland rice SL-PTT program, and (2) the effect of the nature of innovation, the nature of potential users, innovation decision making, communication channels and PPL qualifications partially on the speed of adoption of PTT innovations in the lowland rice SL-PTT program. The research design used in this study is a quantitative research with a quantitative descriptive survey technique. The sampling method used was the census technique, meaning that 20 members of the farmer group working on lowland rice farming were taken as samples. To determine the effect of the independent variables, namely the influencing factors (nature of innovation, nature of prospective users, decision-making, communication/media channels and PPL qualifications) on the speed of adoption of the SLPTT program of lowland rice cultivation, a multiple linear regression model test was used. The results showed that: (1) The nature of innovation, the nature of potential users, innovation decision-making, communication channels and PPL qualifications simultaneously had a significant effect on the speed of adoption of PTT innovations in the lowland rice SL-PTT program, and (2) The nature of innovation, the nature of candidates users, innovation decision making, communication channels and PPL qualifications partially have a significant positive effect on the speed of adoption of PTT innovations in the lowland rice SL-PTT program.

KEYWORDS *Innovation Adoption; Factors; SLPTT Program; Lowland Rice*

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INTRODUCTION

In Indonesia, the agricultural sector is one of the sectors that plays an important role in increasing economic development. This is because agriculture is the main livelihood sector of most Indonesians. As a process, agricultural development is a process of interaction from many parties that are directly or indirectly related to efforts to increase agricultural productivity and increase income and improve the quality of life, through the application of selected technology. Innovation is not just something new, but broader than that, namely something that is considered new or can encourage renewal in society or in certain localities. The definition of "new", contains the meaning not only "newly known" by the mind (cognitive), but also new because it has not been widely accepted by all community members in the sense of attitude, and also new in the sense that it has not been accepted and implemented or applied by all local farmers.

Since the start of the "green revolution" in Indonesia in the early 1970s, agricultural development has focused more on increasing the quality of intensification that is pursued through the application of innovations, both technical innovations and social innovations, so it is very important to study the adoption of these innovations. The adoption of these innovations requires a long time and process (Putri et al., 2016).

To increase rice production in Indonesia, the Integrated Crop Management (PTT) method was applied. PTT is an ecoregional approach taken to increase the productivity of food crops by taking into account the principles of efficiency. In the development of technological innovations using the PTT approach, the principle of synergism is used, namely that the influence of the technological components together on productivity is higher than the influence of the individual technological components (Yahya et al., 2012, 2012).

Paddy Integrated Crop Management Field School (SL-PTT) which is an innovative and dynamic approach in an effort to increase farmer production and income through participatory assembling of technological components with farmers which includes: new superior varieties, quality and labeled seeds, provision of organic materials through returns straw or manure to paddy fields in the form of compost, optimum plant population regulation, fertilization based on plant requirements and soil nutrient status, OPT (plant-disturbing organisms) control with an IPM (integrated pest control) approach, soil management according to season and cropping pattern, use young seedlings (<21 days), planting 1-3 stems per clump, irrigation effectively and efficiently, weeding with porcupines or gasrok,as well as harvesting on time and the grain is immediately threshed (Agency for Agricultural Research and Development, 2014).

Bodesari Village is the working area of the Agricultural UTPD, Plumbon District, Cirebon Regency, which carries out SL-PTT activities for lowland rice in the context of delivering technology to increase productivity, production and income and welfare of farmers. In the implementation of PTT technology, it is suspected that it has not been optimal because the factors that influence it include the nature of innovation, the nature of prospective users, the type of innovation decision, communication channels and qualifications of PPL have not supported the success of the SLPTT program.

Starting from the attitude of farmers who do not easily accept the adoption of innovations, research is needed on what factors can influence the speed of farmers adopting agricultural innovations, which were originally intended to improve farmers' welfare.

The purpose of this study was to determine the effect of the nature of innovation, the nature of potential users, innovation decision making, communication channels and PPL qualifications simultaneously and partially on the speed of adoption of PTT innovations in the lowland rice SL-PTT program.

RESEARCH METHOD

This research was conducted in Bodesari Village, Plumbon District, Cirebon Regency. The time of the research was conducted from January to March 2023. The research design used in this research was quantitative research, with a survey method. The sampling method used was the census technique, meaning that 20 members of the farmer group working on lowland rice farming were taken as samples.

Multiple linear regression analysis is used to explain the influence between the variables of the factors that influence the speed of adoption of PTT innovations in the SLPTT program (X) consisting of the nature of the innovation (X1), the nature of potential users (X2), innovation decision making (X3), channel communication (X4), PPL qualification (X5), and implementation of SLPTT program innovation adoption (Y).

RESULT AND DISCUSSION

Characteristics of Respondents

The number of respondents who were used as the object of this study were 20 people. Characteristics of the respondents included age, last education, experience in business, area of arable land and number of family dependents.

The age of the respondent farmers ranged from 22-62 years, with an average of 43 years. Most are between 43-52 years as many as 9 people (45%). The education level of the farmers of the Sri Mulya farmer group, in general, is still relatively low, most of them graduated from 9 elementary schools (45%), 6 junior high school graduates (30%), 4 high school graduates (20%) and 1 undergraduate graduate. (5%). Respondent farmers are mostly experienced between 17-23 years as many as 11 people (55%) experience farmers with farming experience between 10-16 years as many as 4 people (20%), with experience between 3-9 years as many as 3 people (15%), and the rest are farmers with farming experience between 24-30 years as many as 2 people (10%).

The area of land cultivated by members of the Sri Mulya farmer group who participated in the SLPTT program ranged from 0.25 ha to 1.25 ha, with an average cultivated land area of 0.495 ha. most of the lowland rice farmers with arable land area smaller than 0.50 ha are as many as 12 people (60%).

The number of dependents of farmer families belonging to the Sri Mulya

farmer group ranges from 1 - 6 people. Most of them have family dependents of 3-4 people as many as 11 people (55%). Family dependents are one of the agricultural human resource assets owned by farmers, especially those who are of productive age and help in their farming business.

Description of Nature/Characteristics of Innovation

From the results of the questionnaire given to 20 respondent farmers who are members of the Sri Mulya farmer group, it shows that the nature/characteristics of the SLPTT program innovation are in the good category, with an innovation score of 658 or 65.80% of the expected score of 1,000. (Table 1).

Table 1. Nature/Characteristics of SLPTT Program Innovations

No.	Component Nature/Characteristics of Innovation	Score		Percent (%)	Category
		Hope	Reality		
1.	Relative Advantage	200	126	63.00	Good
2.	Compatibility/Compatibility	200	138	69.00	Good
3.	Complexity/complexity	200	132	66.00	Good
4.	Trialability / Trialability	200	130	65.00	Good
5.	Observability/Observability	200	132	66.00	Good
	Nature/Characteristics of Innovation	1,000	658	65,80	Good

Source: Results of Data Analysis (2023)

Based on the description above, the researcher can conclude that the innovative nature of the SLPTT program is good, but still needs to be improved, especially in increasing relative benefits (economic and social benefits) so that these innovations can truly bring economic and social benefits.

In line with the results of Yos Wahyu Harinta's research (2010), it shows that the factors that influence the speed of adoption of agricultural innovations are: Nature of Innovation, Nature of Prospective Users; Communication Channel. From the nature of innovation factors, the indicators that affect the speed of innovation adoption are relative advantage and observability. From the nature of potential users, indicators that have a significant influence on the speed of innovation adoption are socio-economic status, namely land tenure; personality variables, namely the courage to take risks; and communication behavior, namely the level of participation in farmer groups, interpersonal communication and information seeking. Meanwhile, from the communication channel factor, the influential indicators are interpersonal channels and the mass media.

Therefore, it is necessary to further promote new agricultural technologies by designing them based on farmers' problems and needs. As the results of Melesse B's research (2018), significant variables influencing the adoption of new agricultural technology in Ethiopia are age, education level, family size, farm size, provision of extension services and access to credit. To solve the problem of inadequate use of production technology, decision makers have pursued various policies and strategies to increase agricultural production and productivity. Program development in Ethiopia over the past two decades has incorporated several new technologies. Among the newest ones introduced are superior seeds, pesticides,

improved storage techniques on agricultural land, small-scale irrigation methods and use of fertilizers. However, there has not been widespread provision and adoption of this technology in Ethiopia. Various socio-economic factors and the level of risk aversion can cause the level of technology adoption to be not optimal.

Description of The Nature/Characteristics of Potential Innovation Users

From the results of the questionnaire given to 20 farmer respondents who are members of the Sri Mulya farmer group, it shows that the characteristics/characteristics of prospective users of the SLPTT program are in the good category, with a score of prospective users' characteristics of 636 or 63.60% of the expected score of 1,000.
(Table 2).

Table 2. Characteristics of Prospective SLPTT Program Users

No.	Nature/Prospective User Component	Score		Percent (%)	Category
		Hope	Reality		
1.	Socioeconomic status	400	225	63.75	Good
2.	Personality	300	188	62,67	Good
3.	Communication behavior	300	193	64,33	Good
	Nature/Characteristics of potential users	1,000	636	63,60	Good

Source: Results of Data Analysis (2023)

Respondents' assessment of the nature of prospective users of the SLPTT program in the Sri Mulya farmer group, Bodesari Village, Plumbon District, most of the respondent farmers were classified as good, as much as 85% and as many as 15%, they were quite good.

Innovations that are expensive and complex for farmers to apply will not be well received by farmers and will even be rejected. Therefore, agricultural agents or officers must ensure that innovations for farmers must be relatively affordable to farmers. These innovations should also be simple enough for farmers to understand and use by themselves without the need for a lot of assistance and the innovations introduced must be in accordance with the norms and beliefs in society (Rousan M., 2007). People who actively seek new information and ideas are usually more innovative than passive people, especially those who are always skeptical (don't believe) of something new (Sundahri et al., 2023).

In line with Yos Wahyu Harinta's research (2011), it shows that the factors that influence the speed of adoption of agricultural innovations are: Nature of Innovation; Nature of Prospective Users; Communication Channel. From the characteristics of potential users, indicators that have a significant effect on the speed of innovation adoption are socio-economic status, namely land tenure; personality variables, namely the courage to take risks; and communication behavior, namely the level of participation in farmer groups, interpersonal communication and information seeking.

Technology adoption is recognized as one of the potential explanations for the stagnant growth of agricultural output in developing countries, which threatens food security (Aker, 2011), especially in the current situation where population is

increasing and agricultural area is shrinking. Adoption of agricultural innovations should be encouraged to increase agricultural productivity per hectare, especially for farmers in developing countries. Among the various options available, adopting improved agricultural input technologies (IAIT) appears to be the most feasible and easiest to adopt solution (Shah et al., 2016). IAIT can be in the form of superior varieties (HYV), improved fertilizer formulas, nutrients and other input variables. Although IAIT alone is not a panacea.

Description of Innovation Adoption Decision Maker

From the results of the questionnaire given to 20 farmer respondents who are members of the Sri Mulya farmer group, it shows that the decision makers adopting innovations in the SLPTT program are in the good category, with a score of decision makers adopting innovations of 387 or 64.50% of the expected score of 600 (Table 3).

Table 3. SLPTT Program Innovation Decision Making

No.	Innovation Decision Making Components	Score		Percent (%)	Category
		Hope	Reality		
1.	Oricity	200	126	63.00	Good
2.	Optional	200	128	64.00	Good
3.	Collective	200	133	66.50	Good
	Decision making	600	387	64.50	Good

Source: Results of Data Analysis (2023)

Respondents' assessment of the innovation decision making of the Lowland Paddy SLPTT Program in the Sri Mulya farmer group, Bodesari Village, Plumbon District, most of the respondent farmers were classified as good, as much as 90% and as many as 10%, they were quite good.

The innovation-decision process is the process that a person (or other decision-making unit) goes through starting from first knowing about an innovation, then reacting to it, then making a decision to adopt or reject it, implementing the decision, up to confirming the decision.

In line with Warhani's research (2014), it shows that personal and situational factors have a significant influence on the communication behavior of agricultural extension workers. These personal and situational factors are very important and are interconnected with one another in influencing the behavior of agricultural extension workers in carrying out their duties. If these personal and situational factors are inadequate, it will be difficult for the function and results of counseling to reach its maximum.

Description of Communication Channels/Media

From the results of the questionnaire given to 20 respondent farmers who are members of the Sri Mulya farmer group, it shows that the communication channels/media of the SLPTT program are in the good category, with a communication/media channel score of 247 or 61.75% of the expected score of 400 (Table 4.)

Table 4. SLPTT Program Communication/Media Channels

No.	Communication Channel Components	Score		Percent (%)	Category
		Hope	Reality		
1.	Interpersonal Channels	200	125	62.50	Good
2.	Mass media	200	122	61.00	Good
	Communication Channel	400	247	61.75	Good

Source: Results of Data Analysis (2023)

Respondents' assessment of communication/media channels for the SLPTT program for lowland rice in the Sri Mulya farmer group, Bodesari Village, Plumbon District, most of the respondent farmers were classified as quite good, as much as 60% and as many as 40%, they were classified as good.

These personal and situational factors are very important and are interconnected with one another in influencing the behavior of agricultural extension workers in carrying out their duties. If these personal and situational factors are inadequate, it will be difficult for the function and results of counseling to reach its maximum. Likewise, the research results of Arif Ullah et al (2018) show that model estimation shows that farmer's age, education, number of households, membership, telephone cell, land area, extension services and the role of non-governmental organizations have a positive effect on the adoption of high-yielding varieties. In addition, farmer experience, off-farm income, livestock and machine ownership, access to credit and input prices have a positive and significant impact on the adoption of improved varieties. Besides that,

Description of Qualifications/Conditions of Field Extension Officers/PPL

From the results of a questionnaire given to 20 farmer respondents who are members of the Sri Mulya farmer group, it shows that the qualifications/conditions of the PPL SLPTT program are in the good category, with a PPL qualification/condition score of 527 or 65.88% of the expected score of 800. For more details, the results of the assessment Respondents to the Qualification channel/state of the PPL SLPTT program can be seen in Table 5.

Table 5. Qualifications/conditions of PPL SLPTT Program

No.	Component Qualifications / Conditions of PPL	Score		Percent (%)	Category
		Hope	Reality		
1.	Communication with builders	200	134	67.00	Good
2.	Conformity with the needs of the building	300	198	66.00	Good
3.	Empathic ability	300	195	65.00	Good
	PPL Qualification	800	527	65,88	Good

Source: Results of Data Analysis (2023)

Respondents' assessment of the qualifications of PPL in the Lowland Paddy SLPTT Program in the Sri Mulya Farmer Group, Bodesari Village, Plumbon

District, most of the respondent farmers were classified as good, as much as 90% and as many as 10%, they were quite good.

The speed of adoption is largely determined by the activities carried out by extension agents. The more diligent the extension agents are in offering innovation, the faster the adoption process will be. If extension agents are able to communicate effectively and are skilled at using communication channels effectively, the adoption process will definitely take place more quickly (Mardikanto, 2007). In line with the research results of Slameto, F. Trisakti Haryadi and Subejo (2013), that the intensity of counseling is the level of frequency or the number of visits by officers and the participation of farmers in carrying out counseling activities related to learning SLPTT paddy rice.

Description of Adoption of Integrated Plant Management Field School Innovation (SLPTT)

Adoption of PTT Agricultural Innovation, namely the decision to fully use the PTT method which includes: (a) cropping arrangements, (b) use of seeds, (c) use of fertilizers, (d) pest and disease control, (e) plant maintenance, (f) harvest, and (g) post-harvest. From the results of the questionnaire given to 20 farmer respondents who are members of the Sri Mulya farmer group, it shows that the innovation adoption of the SLPTT program is in the good category, with an innovation adoption score of 1,855 or 61.83% of the expected score of 3,000. For more details, the results of respondents' assessment of the adoption of SLPTT program innovations can be seen in Table 6.

Table 6. Adoption of Integrated Plant Management Field School Innovations

No.	SLPTT Innovation Adoption Component	Score		Percent (%)	Category
		Hope	Reality		
1.	Planting planning	500	306	61,20	Good
2.	Use of seeds	300	190	63,33	Good
3.	Fertilizer use	400	248	62.00	Good
4.	pest control	400	250	62.50	Good
5.	Plant maintenance	400	247	61.75	Good
6.	Harvest	400	245	61.25	Good
7.	Post-harvest	600	370	61,67	Good
	SLPTT Innovation Adoption	3,000	1856	61,87	Good

Source: Results of Data Analysis (2023)

Respondents' assessment of the adoption of the lowland rice SLPTT Program innovation in the Sri Mulya farmer group, Bodesari Village, Plumbon District, most of the respondent farmers were classified as good, as much as 65% and as many as 35%, they were quite good.

The PTT model is a collection of several PTT technology components, both basic and optional components. PTT combines all selected farming components that are harmonious and complementary, to obtain optimal yields and environmental sustainability (Sembiring et al., 2012). According to Wayan S and Subagyono, K. (2012), the PTT action is a rice cultivation strategy which includes; (a) determining

the choice of adaptive commodities according to the agro-climate and growing season,

(b) adaptive superior varieties and high quality seeds, (c) optimal management of soil, water, nutrients, and plants, (d) integrated control of pests and diseases, and (e) proper harvest and post-harvest handling. Nurawan et al.'s research results. (2011), showed that there is a close relationship between the level of application of farming technology and the resulting productivity, meaning that if the applied technology can be improved according to recommendations, then farming productivity will also increase linearly.

In line with the results of research by Ernawati, Lukman Djafar and Sudirman (2014), it shows that the continuation of the application of innovative technology can occur after farmers can directly prove these changes, especially in the parameters of the level of their farming results. Changing the behavior of people who always maintain the old agricultural system so that they can turn into farmers who apply modern agricultural principles, really requires perseverance and patience and takes a long time, because they need adjustment (adapt) to new conditions and also need evidence it is evident that the new system is truly profitable (Nasution & Hasman, 2014).

Factors Affecting the Speed of Adoption of SLPTT Innovations

Simultaneous Significance Test (F Statistical Test)

To see whether there is an influence between the nature of innovation, the nature of prospective users, innovation decision making, communication channels and PPL qualifications on the speed of adoption of PTT innovations in the lowland rice SL-PTT program, analysis of variance (Anova) can be used. Based on the results of multiple regression analysis of variance, it turns out that the nature of innovation, the nature of prospective users, innovation decision making, communication channels and PPL qualifications simultaneously have a significant effect on the speed of adoption of PTT innovations in the lowland rice SL-PTT program. For more details, the results of the regression calculation between variables can be seen in Table 7.

Table 7. Analysis of Variants of Factors Affecting the Speed of Adoption of Lowland Rice SL-PTT Program Innovations.

Model		Sum of Squares	Df	MeanSquare	F	Sig.
1	Regression	171,321	5	34,264	7,509	,001b
	residual	63,879	14	4,563		
	Total	235,200	19			

a. Dependent Variable: Y
b. Predictors: (Constant), X5, X4, X2, X1, X3

The results of the analysis of variance show that the F-count is 7.509, with a Sig F value of 0.001 which is less than the 5% significance level, then H0 is rejected and H1 is accepted. This shows that the variables of the nature of innovation, the nature of prospective users, innovation decision making, communication channels

and PPL qualifications simultaneously (simultaneously) have a significant (significant) effect on the speed of adoption of PTT innovations in the lowland rice SL-PTT program.

Factors that affect the speed of technology adoption include the nature/characteristics of innovation, the nature/characteristics of prospective users, decision makers on innovation adoption, communication/media channels and qualifications/state of field extension workers/PPL. Yos Wahyu Harinta's research results (2010), show that: Factors that influence the speed of adoption of agricultural innovations are: Nature/Characteristics of Innovation, Nature/Characteristics of Prospective Users, and Communication Channels.

In connection with the various characteristics of innovation stated above, Roy in Mardikanto (2007) from the results of his research succeeded in providing a sequence of levels of importance for each of the characteristics of innovation that needs attention in extension activities. Innovations to be introduced must have a lot of suitability or adaptive capacity to the biophysical, social, economic and cultural conditions that exist in farmers. For this reason, the innovations offered must be appropriate innovations.

As the results of Melesse B's research (2018), significant variables influencing the adoption of new agricultural technology in Ethiopia are age, education level, family size, farm size, provision of extension services and access to credit. To solve the problem of inadequate use of production technology, decision makers have pursued various policies and strategies to increase agricultural production and productivity. Technology adoption is recognized as one of the potential explanations for the stagnant growth of agricultural output in developing countries, which threatens food security (Aker, 2011), especially in the current situation where population is increasing and agricultural area is shrinking. Adoption of agricultural innovations should be encouraged to increase agricultural productivity per hectare, especially for farmers in developing countries. Among the various options available, adopting improved agricultural input technologies (IAIT) appears to be the most feasible and easiest to adopt solution (Shah et al., 2016). IAIT can be in the form of superior varieties (HYV), improved fertilizer formulas, nutrients and other input variables. Although IAIT alone is not a panacea, adopting this technology is likely to play an important role in meeting the need for increased food production although major challenges remain (Delmer, 2005).

Partial Test (t test)

To prove the effect of the independent variable (X) on the dependent variable (Y), a follow-up test was carried out using the t-test approach (t test). To determine the effect of the nature of innovation, the nature of prospective users, innovation decision making, communication channels and PPL qualifications partially affect the speed of adoption of PTT innovations in the lowland rice SL-PTT program. partially can be seen in Table 8.

Table 8. Regression Coefficient of Factors Affecting the Speed of Adoption of Lowland Rice SL-PTT Program Innovations

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	9,538	14,738		2,647	,021
	X_1	,116	,332	,179	2,367	,029
	X_2	,693	,482	,290	2,436	,023
	X_3	1,394	,894	,370	2,560	,020
	X_4	1,626	,657	,431	2,476	,022
	X_5	,683	,377	,297	2,810	,018

a. Dependent Variable: Y

Based on the data in Table 8, the regression equation is obtained as follows:

$$\overline{Y} = 9.538 - 0.116\ X_{1+}\ 0.693\ X_{2+}1.394\ X_{3+}1.626\ X_{4+}\ 0.683X5(R^2 = 0.728)$$

Where : Y : speed of adoption of SLPTT program innovation, X1 : nature innovation, X2: nature of prospective users, X3: decision making, X4: communication/media channels and X5: PPL qualifications.

From the linear regression equation as above, it can be seen that the contribution of the variable nature of innovation, the nature of potential users, innovation decision-making, communication channels and PPL qualifications to the speed of innovation adoption of the SLPTT program in detail can be interpreted as follows:

1) The value of the constant b0 = 9.538, means that statistically if the independent variables, namely the nature of innovation, the nature of potential users, innovation decision-making, communication channels and PPL qualifications remain unchanged, then the value of the speed of adoption of the SLPTT paddy rice program innovation will increase by 9.538 percent.
2) The value of the regression coefficient b1 = 0.116, meaning that statistically if the nature of innovation increases by 1 percent, the value of the speed of adoption of innovations in the lowland rice SLPTT program will increase by 0.116 percent, and vice versa if the nature of innovation decreases by 1 percent, then the value of the speed of adoption of innovations in the lowland rice SLPTT program will decreased by 0.116 percent. The tcount value is 2.367, with a significant value of 0.029 <0.05, meaning that the nature of innovation has a significant positive effect on the speed of adoption of innovations in the lowland rice SLPTT program.
3) The value of the regression coefficient b2 = 0.693, meaning that statistically if the nature of the potential users of innovation increases by 1 percent, the value of the speed of adoption of the SLPTT paddy rice program innovation will increase by 0.693 percent, and vice versa if the nature of the potential users of

innovation decreases by 1 percent, then the value of the speed of adoption of program innovations SLPTT for lowland rice will decrease by 0.693 percent. The tcount value is 2.436, with a significant value of 0.023 <0.05, meaning that the innovative nature of the lowland rice SLPTT program will decrease by 1.394 percent. The tcount value is 2.560, with a significant value of 0.020 <0.05, meaning that innovation decision making has a significant positive effect on the speed of adoption of innovations in the lowland rice SLPTT program.

4) The value of the regression coefficient b3 = 1.394, meaning that statistically if innovation decision making increases by 1 percent, the value of the speed of adoption of innovations in the paddy SLPTT program will increase by 1.394 percent, and vice versa if innovation decision making decreases by 1 percent, then the value of the innovation adoption speed of the rice SLPTT program paddy fields will decrease by 1.394 percent. The tcount value is 2.560, with a significant value of 0.020 <0.05, meaning that innovation decision-making has a significant positive effect on the speed of innovation adoption of the lowland rice SLPTT program. the lowland rice SLPTT program will increase by 1.394 percent, and vice versa if innovation decision making decreases by 1 percent, then the value of the speed of adoption of innovations in the lowland rice SLPTT program will decrease by 1.394 percent. The tcount value is 2.560, with a significant value of 0.020 <0.05, meaning that innovation decision making has a significant positive effect on the speed of innovation adoption of the lowland rice SLPTT program
5) The value of the regression coefficient b4 = 1.626, meaning that statistically if the communication channel/innovation media increases by 1 percent, the value of the speed of adoption of the SLPTT paddy rice program innovation will increase by 1.626 percent, and vice versa if the communication channel/innovation media decreases 1 percent, then the value of the speed of adoption of innovations in the lowland rice SLPTT program will decrease by 1.626 percent. The tcount value is 2.476, with a significant value of 0.022 <0.05, meaning that communication channels/innovation media have a significant positive effect on the speed of adoption of innovations in the lowland rice SLPTT program.
6) The value of the regression coefficient b5 = 0.683, meaning that statistically if the PPL qualifications increase by 1 percent, the value of the speed of adoption of the SLPTT paddy rice program innovation will increase by 0.683 percent, and vice versa if the PPL qualification channel drops by 1 percent, then the value of the innovation adoption speed of the paddy rice SLPTT program will decrease by 0.683 percent. The tcount value is 2.810, with a significant value of 0.018 <0.05, meaning that the qualifications of PPL have a significant positive effect on the speed of adoption of innovations in the lowland rice SLPTT program.

The results of this study indicate that the influencing factors (nature of innovation, nature of potential users, innovation decision-making, communication channels and PPL qualifications) play a major role in the speed of adoption of the SLPTT paddy rice program innovation, this shows that there is a linear relationship between nature of innovation, nature of potential users, innovation decision making, communication channels and qualifications of PPL

with the speed of adoption of innovations in the lowland rice SLPTT program.

Research with similar results has also been reported by (Sudana & Subagyono, 2012). These personal and situational factors are very important and are interconnected with one another in influencing the behavior of agricultural extension workers in carrying out their duties. If these personal and situational factors are inadequate, it will be difficult for the functions and results of counseling to be maximized. One of the situational factors that influence is the availability of facilities and infrastructure to support agricultural extension agents, for example agricultural extension institutions so that it becomes a driving force for extension workers to work well, because they feel cared for by the government and become a home-base or place where agricultural extension workers and farmers gather. other stakeholders in extension activities (Romdon et al., 2012).

CONCLUSION

Based on the results of the research and discussion that have been described above, it can be concluded that the Integrated Crop Management technology package has a significant effect on farmers' income as follows:

1) The nature of innovation, the nature of prospective users, innovation decision making, communication channels and PPL qualifications simultaneously have a significant effect on the speed of adoption of PTT innovations in the lowland rice SL-PTT program
2) The nature of innovation, the nature of prospective users, innovation decision making, communication channels and PPL qualifications partially have a significant effect on the speed of adoption of PTT innovations in the lowland rice SL-PTT program

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