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Strategy Analysis for Implementing Rice Transplanter Planting Machine Technology in Rice Farming Using the Interpretive Structural Modeling (ISM) Method in South Sulawesi

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Abstract: Indonesia has several rice producing centers, one of which is Sidrap Regency which is located in South Sulawesi with the support of a rice transplanter technology system. This research aims to analyze the factors inhibiting the implementation of rice transplanter rice planting machine innovation and strategies for implementing the use of this planting machine. This research uses descriptive analysis by creating frequency tables and percentages from primary data results obtained through interviews with respondents. Likert scale to measure farmers' responses to the dissemination of the Rice Transplanter rice planting machine innovation in Sidrap Regency and the ISM method was used to develop a strategy for implementing the dissemination of agricultural innovation to support agricultural development in Sidrap Regency. The research results show that the factors inhibiting the implementation of Rice Transplanter machine innovation are farmers' lack of skills in using rice transplanter, limited rice transplanter, facilities in farmer groups, lack of rice transplanter service providers and lack of farmer staff, motivation to use rice planting tools. The strategy for implementing rice transplanter innovation is through training in implementing rice transplanter innovation, increasing farmers' interest in using rice transplanters, providing rice transplanter facilities and strengthening institutions.

Keywords: Innovation strategy; Production of rice farming; Rice transplanter; Sustainable of agriculture

Introduction

Food self-sufficiency requires the absolute introduction of agricultural innovation in agricultural commodity cultivation activities. To facilitate increased production, one of the ways is the use of agricultural tools and machinery which must be carried out by farmers groups. The presence of machine tools for farmers groups can increase rice production results by building an agricultural input subsystem that includes agricultural mechanization factors (Farizan et al., 2018).

Sidenreng Rappang Regency has 11 sub-districts which generally produce rice, one of which is Maritengngae sub-district with 12 villages/sub-districts

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where the majority of farmers are rice farmers. It is also included as one of the livelihoods of farmers which has been cultivated for a long time and its production is high with a harvest area of 10,178.50 Ha and total production in 2021 of 53,278.83 tonnes from the total production of 480,000.02 tonnes in Sidenreng Rappang Regency (Zhang et al., 2024). Sidenreng Rappang Regency is one of the districts in South Sulawesi Province which is called Lumbung Padi. Rice is a food crop that produces rice which plays an important role in economic life as an ingredient to meet local needs and as a livelihood. South Sulawesi is known as a rice producing area and the title of national rice barn confirms South Sulawesi's status as a potential food producer (Mariano et al., 2012; Iskandar et al., 2022).

Apart from rice, other food crops produced in South Sulawesi are corn, sweet potatoes, cassava and beans (Arsyad et al., 2021). In connection with agricultural innovation in the era of industrial revolution 4.0, it is important to make breakthroughs in agricultural technological innovation, such as the use of rice transplanter innovations in rice cultivation in Sidenreng Rappang Regency. There are 11 sub-districts in Sidenreng Rappang Regency, all of which have received Rice Transplanter assistance. From 2014 until now, MaritengngaE District has received the most aid for rice planting equipment, namely 16 units out of a total of 76 units of rice planting equipment in Sidrap Regency. Providing this assistance is a response from the government in an effort to increase rice production. The assistance of rice planting machines is one effort to overcome the problems currently facing Indonesia with the limited number of rice planting workers which has a direct impact on rice production (Akbar et al., 2023).

The limited number of workers causes inefficiency in agricultural activities. Rice planting machines are machinery used in an effort to increase the efficiency of rice production. The rice transplanter machine is a direct rice planting machine that can plant up to four rice seeds at once and regulate the amount of rice planted according to needs (Haini et al., 2021). The aim of my research is to see the inclusion of several agricultural innovations, especially innovations in the use of agricultural tools and machines that have been implemented, namely innovations in rice planting machines (Rice Transplanters) in Maritengngae District, Sidenreng Rappang Regency.

Rice (Oryza sativa L.) is an important food crop which is the staple food for more than half of the world's population because it contains the nutrients the body needs. According to Poedjiadi (1994), the carbohydrate content of milled rice is 78.9%, protein 6.8%, fat 0.7% and others 0.6%. As a densely populated country, Indonesia faces challenges in meeting its food needs (Rohmatin & Suparno, 2023). Rice is a rice-producing food crop which plays an important role in the Indonesian economy. As a food crop, rice is consumed as a daily staple food by around 90% of the total population of Indonesia (Pratiwi, 2016). Rice as a staple food is very difficult to replace with other staple ingredients such as corn, tubers, sago and other sources of carbohydrates. Therefore, the existence of rice is the main priority for people to meet their carbohydrate intake needs and can be easily converted into energy (Masnur & Asra, 2021).

Indonesia is known as one of the countries with the largest agricultural output and Indonesia's main agricultural commodity is rice. Sidenreng Rappang Regency is one of the agricultural areas in South Sulawesi Province which is a national rice granary (Djoyowasito et al., 2017). This is also reflected in the agricultural sector, especially the role of food crops which have a large contribution to economic growth. Rice is one of the mainstay food crop commodities produced by Sidenreng Rappang Regency. In increasing rice production, it is hoped that it will be able to increase productivity and efficiency. The production process, including pre- and post-harvest activities, which require the support of various effective production facilities and infrastructure, including support for agricultural tools and machinery (Alsintan), is expected to increase (Listiana et al., 2021; Djou & Padafani, 2022).

Rice Planting Machine Innovation (Rice Transplanter)

Innovation comes from the word innovation, which means renewal or change in a new way. In the business world, innovation introduces new ideas, new products, and new, more useful ways of doing things. Therefore, in managing a service or product business, innovation is the key to novelty to respond to the dynamics of changing consumer and market preferences. Innovation can also be interpreted as an idea, product, method, and so on which is considered as something new and can be concluded to discover or implement something new (Rahbiah et al., 2019; Dubey et al., 2023).

The use of planting machine technology as artificial intelligence in agriculture is something that must be done (Hayati, 2022). The rice planting machine innovation is an innovation used to plant rice seeds which are sown in a certain area at a certain age in rice fields where the machine is designed to work in muddy land (puddles). The rice planter innovation is also one of the innovations in the agricultural sector where the use of this machine cannot be separated from the adoption process of innovation diffusion. The advantage of the rice transplanter machine is that the planting distance has been set and the machine's working process is fast. The usefulness of an innovation for farmers will be seen from how much the innovation can provide benefits for farmers compared to technology that has been used before (Nawi et al., 2023). Rice transplanter is an

innovative technology for planting machines for rice plants. According to In an effort to increase rice production nationally and overcome the shortage of labor in the agricultural sector, it is necessary to implement rice transplanting machines in areas that are starting to experience a shortage of labor (Gwadabe et al., 2022; Li et al., 2021).

Rice transplanters have the opportunity to speed up the time for planting rice seeds and overcome the scarcity of workers planting rice seeds in certain areas. Seeding rice seeds is a critical point in using a rice transplanter because it requires a different seeding method from conventional seeding and special seeding tools (Fujiarta et al., 2019). The problem that arises in this research is q. What factors hinder the implementation of rice transplanter innovation in MaritengngaE District, Sidenreng Rappang Regency? 2. What is the strategy for implementing Rice Transplanter innovation in MaritengngaE District, Sidenreng Rappang Regency? The objectives of this research are 1. To find out what factors hinder the implementation of rice transplanter innovations in MaritengngaE District, Sidenreng Rappang Regency, 2. To analyze strategies for implementing Rice Transplanter innovations in MaritengngaE District, Sidenreng Rappang Regency (Reny Batara Sofia et al., 2023; Ibrahim et al., 2021).

This research is important because this research will be a reference for policy makers, and what is new in this research is the application of rice planting technology by considering the inhibiting factors in its implementation and appropriate strategies to be implemented so that the use of rice transplanter planting machines can be effectively implemented by farmers in overcoming shortages. workforce during this time (Syahyuti et al., 2021; Fatchurrachman et al., 2023).

Method

This research was conducted in July 2022-February 2023 in Maritengngae District, Sidenreng Rappang Regency, South Sulawesi Province, Indonesia. To obtain data, 15 respondents were taken through an expert system consisting of 3 people from the Agriculture Service, 5 people from BPP (Balai Agricultural Extension) MaritengngaE, 4 heads of farmer groups and 3 farmers according to their expertise and abilities in understanding rice transplanters through interviews, observations and questionnaires. Data processing is carried out in the stages of Editing (checking the clarity and validity of respondents' answers so that the data can be processed), Coding (answer codes: V, A, X, and/or O), Processing (data processing by grouping all types of data based on the required categories). This research uses the Interpretative structural modeling (ISM) method through stages: Develop a Structural Self-Interfaction Matrix (SSIM) using the tabulated results of the questionnaire, using the symbols V, A, X, and O, SSIM; Prepare a Reachability Matrix table, by replacing the symbols V, A, X and O in the questionnaire with the numbers 1 and 0; (3) Develop a Driver Power-Dependent (DP-D) Matrix consisting of four sectors; (4) Develop a structural model (level) for each element.

The classification of sub elements can be explained into 4 quadrants, namely:

Quadrant I: Autonomous, (slightly related to the system). The sub-elements in this sector are generally not related to the program, or the relationship is very small.

Quadrant II: Dependent, (non-free elements). The sub-elements in this sector are not free, meaning that all the sub-elements in it are the result of actions on other sub-elements. Therefore, the sub-elements in this position are not important in relation to the program.

Quadrant III: Linkage, (sensitive and unstable elements). The sub-elements in this sector are very important and must be studied carefully, because the relationship with other sub-elements is unstable. Every action on this sub-element will have an impact on other variables, and the feedback effect can magnify or create new impacts. In other words, every action on this sub-element will result in success, whereas weak attention to this sub-element will cause program failure.

Quadrant IV: Independent, (free or strongest element)/key element. The sub-elements in this sector are independent variables, meaning they are a large driving force (driver-power).

Result and Discussion

Inhibiting Factors in Implementing Rice Planting Machine Innovation (Rice Transplanter)

The results of the Interpretative Structural Modeling (ISM) analysis show that of the 10 elements (factors) estimated, 2 sub-elements are the factors that most hinder the implementation of the Rice Transplanter rice planting machine innovation, namely (1) lack of farmer skills in using the Rice Transplanter and (2) limited Rice Transplanter facilities in Farmer Groups. These two factors have large driving power and small dependency on other sub-elements, as in table 1.

Table 1 shows that there are 2 sub-elements in the Independent position, namely lack of farmer skills in using Rice Transplanters and Limited Rice Transplanter facilities in Farmer Groups with an average weight of DP = 1.00 and D = 0.50 where the driving force is strong and dependence is high. The Linkage position has 5 sub-elements, namely Limited Rice Transplanter seeding equipment, Insufficient and expensive Rice Transplanter spare parts, Lack of Rice Transplanter service providers, Weak promotion regarding the use of Rice Transplanters

and Lack of farmer motivation towards using Rice Transplanters with an average DP weight = 0, 92 and D = 0.74 where the driving force is strong and the dependence is strong. The Dependent position has 3 sub-elements, namely lack of assistance because tools are still limited, access to farming roads is still limited and the risk of death of rice seedlings is higher with an average weight of DP = 0.30 and D = 0.93 where the driving force is weak and dependence is low tall. This can also be explained in the DP-D Matrix in Figure 1.

Table 1. Comparison of DP-D Weights of Inhibitory Factors

Position	Sub elements	Value	
		DP	D
1. Independent	1. Lack of farmer skills in using Rice Transplanters	1.00	0.50
	2. Limited Rice Transplanter facilities in Farmer Groups	1.00	0.50
	Average	1.00	0.50
2. Linkage	1. Limited Rice Transplanter seeding equipment	0.90	0.70
	2. Rice Transplanter spare parts are lacking and expensive	0.90	0.70
	3. Lack of Rice Transplanter service providers	1.00	0.80
	4. Weak promotion regarding the use of Rice Transplanters	0.80	0.70
	5. Lack of farmer motivation towards using Rice Transplanters	1.00	0.80
	Average	0.92	0.74
3. Dependent	1. Lack of assistance because tools are still limited	0.40	0.90
	2. Farm road access is still limited	0.40	0.90
	3. The risk of death of rice seedlings is higher	0.10	1.00
	Average	0.30	0.93

Information: DP = Driver Power; D = Dependent

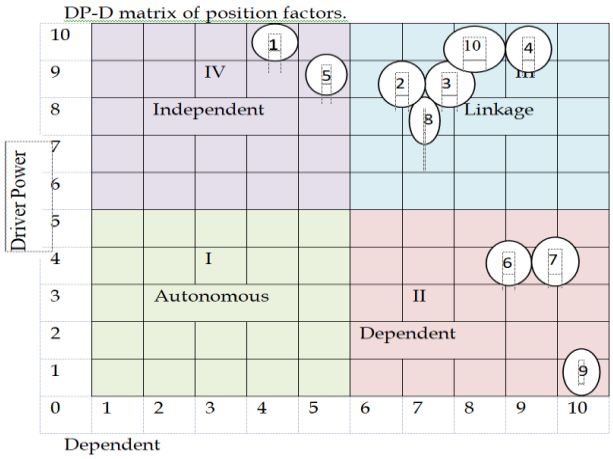

Figure 1. DP-D Matrix of the position of factors that hinder the implementation of rice transplanting machine innovation (Rice Transplanter)

Information:
- Lack of farmer skills in using Rice Transplanters
- Limited Rice Transplanter seeding equipment
- Rice Transplanter spare parts are lacking and expensive
- Lack of Rice Transplanter service providers
- Limited Rice Transplanter facilities in farmer groups
- Lack of assistance because tools are still limited
- Farm road access is still limited
- Weak promotion regarding the use of Rice Transplanters
- The risk of death of rice seedlings is higher
- Lack of farmer motivation towards using Rice Transplanters

The results of the Interpretative Structural Modeling (ISM) analysis show that the Independent position consists of 2 factors which are independent/independent sub-elements, these two factors are (1) lack of farmer skills in using Rice Transplanters and (2) limited Rice Transplanter facilities in Farmers. These two factors are the main causes (priorities) which are obstacles in implementing the Rice Transplanter rice planting machine innovation. The lingkage position consists of 5 factors, namely Limited Rice Transplanter seeding equipment; Lack of and expensive Rice Transplanter spare parts; Lack of Rice Transplanter service providers; Weak promotion regarding the use of Rice Transplanters and Lack of farmer motivation towards using Rice Transplanters. The dependent position consists of 3 factors, namely: lack of assistance because tools are still limited; limited access to farming roads; and the risk of rice seedling death is higher.

Skills are the ability or ability to implement an innovation. This innovation can be applied if farmers have witnessed it, practiced it so they can repeat everything they see through direct activities using this innovation. Farmers who have high skills are followed by high production. Farmer skills are a communication process to change farmer behavior to become agile, fast and precise through technological development. With the skills to use rice transplanters and help farmers in developing their agricultural businesses, the time used is more effective (Ekawati et al., 2018).

Limited facilities and infrastructure really interfere with efforts to implement agricultural innovation.

Facilitation of rice transplanters is able to increase production and productivity in a sustainable manner, which must be supported by all parties, especially the government and related stakeholders so that self-sufficiency and sustainable self-sufficiency can be maintained (Douglas, 1988).

The first factor inhibiting the implementation of rice transplanter rice planting machine innovation in the Independent sector is farmers' lack of skills in using rice transplanters. In the research area, many respondents were not yet skilled in implementing the rice transplanter machine innovation starting from the stage of sowing rice seeds to the stage of operating the rice planting machine (Hertanto et al., 2019). At this stage of planting rice seeds, there are still many farmers who have not yet mastered the seeding method using an innovative rice planting machine (Rice Transplanter) because of the difference in technique or method compared to the planting that farmers usually do, namely by planting seeds directly and transplanting traditional (conventional) rice seeds. The seed board moves laterally according to the rotation of the planting radius. The movement of the seed board is regulated by a ratchet gear mechanism. Ratchet teeth are used as a locking mechanism when holding a load (Tsuga Kohnosuke, 1992; Irmayani et al., 2022).

The second factor in the Independent's position is the limited facilities for Rice Transplanters in farmer groups. Due to the limited availability of rice planting machines in farmer groups, many farmers who want to implement this innovation specifically want to use the help of planting machines but this is still limited due to the simultaneous planting system. Apart from that, limited labor to plant rice seedlings is difficult to obtain, so many farmers are looking for labor to plant rice seedlings from outside the region. Such problems can be overcome by using rice planting machines, but this remains an obstacle because of the limited facilities for planting machines in farmer groups. Innovation machine facilities and infrastructure in rice farming are supporting factors for farmers being able to have bargaining power to increase their production results.

The first factor inhibiting the implementation of rice planting machine innovation (Rice Transplanter), which is included in the linkage sector, is the limited number of Rice Transplanter seeding equipment. In reality, Rice Transplanter assistance already exists but due to limited seeding equipment, many farmers do not use this innovation (Indriati & Jasmi, 2022).

Making a seedbed is also the first step in rice planting in preparing seeds that are ready for planting. Making a seedbed requires the best possible preparation for planting seed production. Because the seeds in this nursery will determine the growth of rice in the rice fields. The nursery must really receive attention and maintenance in order to get healthy and fertile rice seedlings. One of the critical points for planting seeds using a rice transplanting machine (rice transplanter) is making a seedbed, because it requires special seeds. The method of making a nursery using a transplanting machine for rice seeds is different from the nursery which is usually done traditionally (Makate, 2019).

Strategy for Implementing Rice Planting Machine Innovation (Rice Transplanter)

The results of the Interpretative Structural Modeling (ISM) analysis show that there are 2 sub-elements which are programs that play an important role in implementing the rice transplanter rice planting machine innovation, namely (1) training in implementing the rice transplanter innovation and (2) increasing farmers' interest in using the Rice Transplanter. This strategy program has a large driver power and a small dependency on other sub-elements, as in Table 2.

Table 2. Comparison of DP-D Strategy Weights

Position	Sub element	Value	
		DP	D
1. Independent	1. Training on the application of rice transplanter innovation	1.00	0.50
	2. Increase farmers' interest in using rice transplanters	1.00	0.50
	Average	1.00	0.50
2. Linkage	1. Carry out nursery innovations	0.80	0.60
	2. Modify rice transplanter	0.60	0.90
	3. Add investors	0.60	1.00
	4. Procurement of rice transplanter facilities	1.00	0.70
	5. Effectiveness of extension	0.90	0.90
	6. Institutional strengthening	1.00	0.80
	Average	0.82	0.82
3. Dependent	1. Improve farm road access	0.50	1.00
	2. Maintaining the rice seedling nursery	0.50	1.00
	Average	0.50	1.00

Information: DP = Driver Power; D= Dependent

Table 2 shows that there are 2 sub-elements in the Independent position. namely Training in implementing rice transplanter innovation and Increasing farmers' interest in using rice transplanters with an average weight of DP = 1.00 and D = 0.50 where the driving force is strong and dependency is low. The Linkage position has 6 sub-elements, namely: Carrying out nursery innovations. Modifying Rice Transplanters. Adding investors. Procurement of rice transplanter facilities. Effectiveness of counseling and Strengthening institutions with an average weight of DP = 0.82 and D = 0.82 where the driving force is strong and strong dependency. The Dependent position has 2 sub elements, namely improving farm road access and maintaining rice seedling nurseries with an average weight of DP = 0.50 and D = 1.00 where the driving force is weak and dependency is high. Comparison of the driver power and dependent values for each strategy program for implementing the rice transplanter innovation. This is illustrated in the Matrix in Figure 2.

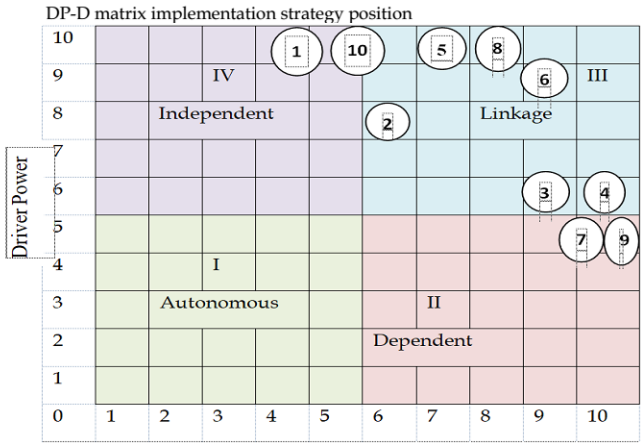

Figure 2. DP-D Matrix Strategic position in implementing rice transplanter innovation

The results of the Interpretative Structural Modeling (ISM) analysis show that the Independent position consists of 2 sub-elements of strategy for implementing the existing rice transplanter rice planting machine innovation. Namely: training in implementing the Rice Transplanter innovation and increasing farmers' interest in using the rice transplanter. The lingkage position consists of 6 sub-elements. Namely: carrying out nursery innovations; modifying the rice transplanter; adding investors; procuring rice transplanter facilities; making outreach effective and (6) strengthening institutions. The dependent position consists of 2 strategic sub-elements. Namely: improving road access and maintaining rice seedling nurseries. The first strategy for implementing rice planting machine innovation (Rice Transplanter), which is included in the Independent sector is training in implementing Rice Transplanter innovation. This training needs to be held so that farmers and agricultural extension workers gain knowledge of operating rice planting equipment. Apart from that. The rice planting machine is an alternative technology that can overcome delays in the simultaneous planting period because the rice planting process is only carried out by human workers and the labor required for rice planting is very reduced and can only be obtained from workers from outside the Sidenreng Regency area, Rappang. Rice transplanter is a tool for planting rice by adjusting the quantity depth. Spacing and planting conditions. With the development of technology in the agricultural sector. Agricultural equipment for rice planting machines can be created. Making it easier for farmers to work on rice fields with the hope of time efficiency. increasing productivity and improving the welfare of the farming community (Azis et al., 2022).

The second strategy in the Independent sector is to increase farmers' interest in using rice transplanters. Nowadays with the presence of rice planting machines. these can be used as helpers to speed up planting and are not considered as enemies of current planting power. Manual cultivators can now plant rice in places that cannot be reached by rice planting machines. So that by using rice planting equipment they can meet technical requirements such as full tillage (level/flat land). Fine soil (artificial irrigation) and system maintenance of dapok (small plot). Apart from the land processing process in the rice farming system. Rice planting activities require a lot of time and money. Considering that there are fewer and fewer planting workers available in the agricultural sector and generally they are elderly and there is no regeneration process. A planting machine is needed in rice cultivation activities. The use of planting tools and machines is an alternative to overcome the limited workforce. It is hoped that this rice planting machine innovation can accelerate rice planting thereby increasing production and productivity. and with agricultural mechanization it can attract and increase the interest of the younger generation in farming and encourage sustainable regeneration of agricultural workers (Madonna et al., 2022; Mariano et al., 2012).

The strategy program for implementing rice planting machine innovation (rice transplanter) is the first sub-element included in the linkage sector, namely carrying out nursery innovations. With the limited seedbed equipment available. Farmers can innovate seedbeds by making their own seedbeds that are suitable and adapted to rice planting machines. Whether they are their own or assisted. The strategy program for implementing rice planting machine innovation (rice transplanter) is the second sub-element included in the

linkage sector, namely modifying the rice transplanter. With farmers actively looking for solutions when the problem is that spare parts or spare parts for rice transplanters are lacking and even those that are complained about are expensive and are not available in the area. this could be a strategy to modify the rice planting machine by using social media and seeking information from several farmers who has succeeded in modifying his own rice planting machine (Tian et al., 2023; Ranji et al., 2022).

The strategy program for implementing rice planting machine innovation (rice transplanter) is the third sub-element included in the linkage sector, namely adding investors. That Looking for investors who can provide capital or financial assistance can be a solution for farmers who want to use rice planting machines because it can be seen from the limited land received by rice transplanter service providers and the lack of service providers at the research location. The strategy program for implementing rice planting machine innovation (rice transplanter) is the fourth sub-element included in the linkage sector. namely the procurement of rice transplanter facilities (Purnama et al., 2023).

The provision of rice transplanter facilities is highly expected by farmers. It can be an evaluation material for choosing the type of rice planting machine that is suitable for the rice fields in the Maritengngae District area because they have received assistance previously. In fact, infrastructure in the form of special seeding equipment for transplanting rice planting machines has become a note for the government to suggest could be additional but until now it has not been realized because the budget is still limited and hopefully in the future it can become a top priority. A budget is really needed for the government to carry out its government. Budgets in general are very important in planning which are prepared systematically to achieve organizational goals. The budget is also a tool for controlling organizational activities that will be carried out (He et al., 2023; Sulistyawati et al., 2020).

The fifth sub-element of the strategy program for implementing rice planting machine innovation (Rice Transplanter) which is included in the linkage sector is the effectiveness of extension. Extension is aimed at providing innovation until the innovation is accepted by the community. In reality counseling requires a lot of effort patience and a long time because counseling changes a person's behavior and helps others to help themselves (Parmawati et al., 2023). If farmers' participation and creativity are forced it will ultimately create an atmosphere of dependency. Therefore, we need to look for approaches to make the implementation of extension more effective (Mansaray et al., 2020).

Extension is also a process of delivering innovation, but the innovation itself is something new and always involves uncertainty, both of success and uncertainty that the innovation can be implemented and accepted by society. Starting from this idea. the effectiveness of extension activities can be achieved if the extension agent concerned is able to increase the expected value of each innovation presented (Pound & Conroy, 2017). This means that the innovation that is disseminated must raise high expectations from the beneficiary community that the innovation is feasible. successful and also provides economic benefits. According. the strategy program for implementing rice planting machine innovation (Rice Transplanter) is the sixth sub-element included in the linkage sector, namely institutional strengthening. Strengthening institutions is a strategic program for implementing innovative rice planting machines (Rice Transplanters) which will expand farmers' access so they can improve their welfare. One of the strategies for strengthening institutions is by making improvements to institutional aspects in order to establish cooperation between farmer group administrators and their members and partnerships between stakeholders. Strengthening institutions also requires support from other institutions so that institutions can play a role in encouraging farmers to achieve independence and empowerment (Nurfalah et al., 2023; Dominici et al.. 2022).

Conclusion

Factors inhibiting the implementation of rice planting machine innovation (Rice Transplanter) in sequence are the lack of farmer skills in using rice transplanters limited rice transplanter facilities in farmer group, the lack of rice transplanter service providers and the lack of farmer motivation towards using rice transplanters. Strategy for implementing rice planting machine innovation (Rice Transplanter) through training in implementing rice transplanter innovation, increasing farmers' interest in using rice transplanters, procuring rice transplanter facilities and strengthening institutions.

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Author Contributions

Conceptualization: I.. M.M.M..D.A.A. and Mk; methodology: I.. M.M.M..D.A.A. and Mk. X.X.; validation: I and M.M.M; formal analysis: I.. M.M.M..D.A.A. and Mk; investigation. translator. P.K.S.. A and Ma.; resources: I.. M.M.M..D.A.A.; data curation. X.X.; writing—original draft preparation. I.. M.M.M.. and D.A.A.; writing—review and editing: I..

M.M.M..D.A.A. and Mk; visualization. I.. A and Ma.; supervision. X.X.; project administration: P.K.A.. A and Ma.

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Conflicts of Interest
The authors declare no conflict of interest.

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