The Effectiveness of The Implementation of The Farmer Card Program in Distributing Subsidized Fertilizers in Tasikmadu District, Karanganyar Regency

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ABSTRACT

In order to actualize distribution and control that are right on target, one of the government programs that is employed as a tool to redeem subsidized fertilizers is called the Farmer Card. Among the objectives of this study are the following: 1) To describe and analyze the variables of non-formal education, land ownership, farming experience, and social environment, as well as the effectiveness of the implementation of the Farmer Card Program in distributing subsidized fertilizers; 2) To analyze the influence of factors that affect the effectiveness of the program on the effectiveness of the implementation of the Farmer Card Program in Tasikmadu District. The research is conducted using a quantitative approach, and the venue was chosen on purpose to be in the Tasikmadu District community. When using the proportional simple random sampling approach, there were a total of seventy individuals that participated in the survey. The IBM SPSS Statistics 25 application was utilized for the analysis of the data, and a multiple linear regression test was performed. The findings of the research indicate that the following elements are included in the high category: (1) the factors that pertain to non-formal education are included in the high category; (2) the domain of land ownership is included in the very limited category; (3) the farming experience is included in the old category; and (4) the social environment is included in the high category. The effectiveness of the implementation Farmer Card Program in distributing subsidized fertilizers in Tasikmadu District is included in the category of quite good in terms of the success of the target, the success of the program and satisfaction with the program; (2) Non-formal education, the extent of land ownership and the social environment have a significant effect on the effectiveness of the implementation of the Farmer Card Program, while farming experience has no significant effect.

Keywords: Effectiveness, Farmer Card, Subsidized Fertilizer

1. INTRODUCTION

Agriculture is one of the sectors that has an important role in Indonesia's economic development. The agricultural sector has a great contribution to the country's food supply. Indonesia is an agrarian country whose average population works as farmers. As many as 29.36 percent of the Indonesian population works in the agricultural sector [1]. Until now, agriculture is still one of the sectors that has a strategic role in supporting the Indonesian economy [2].

Activities in the agricultural sector cannot be separated from the need for fertilizers. Fertilizer is one of the most important production factors in a farming business. The availability and ease of access of fertilizers have an effect on increasing agricultural production. Based on data from the Indonesian Fertilizer Producers Association (APPI), Indonesia's fertilizer consumption in January-June 2023 reached 4.47 million tons. This number has reached 44.93 percent of the total national fertilizer consumption throughout 2022.

The reality is that farmers continue to face a multitude of challenges in the agricultural industry, such as the difficulty of acquiring fertilizer and the fluctuating pricing of fertilizer. Through the implementation of a policy that makes fertilizer more affordable, the government came up with a solution to this issue. In order to meet the requirements of farmers, the government provides

subsidies for the purchase and distribution of fertilizers. These fertilizers are referred to as subsidised fertilizers. In accordance with Regulation Number 10 of 2022 issued by the Minister of Agriculture, which is titled "Procedures for Determining the Allocation and Highest Retail Price of Subsidized Fertilizers in the Agricultural Sector," the allocation of subsidized fertilizers in 2023 is subject to restrictions on the types of fertilizers that are available, specifically urea and NPK fertilizers. Over the course of its implementation, the policy of subsidizing fertilizer encounters a number of challenges, such as the limited availability of fertilizers, the fluctuating prices of fertilizers, and the utilization of fertilizers by farmers that exceed the suggested limit [3].

Managing the distribution of subsidized fertilizers was the primary objective of the Tani Card Program, which was initiated by the Central Java Provincial Government in an effort to address these problematic issues. Farmers are able to obtain a subsidized fertilizer redemption tool in the form of a BRI co-branding debit card, which is based on a joint agreement between the Governor of Central Java and the Director of PT Bank Rakyat Indonesia (Persero) Tbk. Number 004/2015, Number B.122-DIR/KPM/03/2015. This agreement pertains to the farmer card. The purpose of the Tani Card program is to ensure that subsidized fertilizers are distributed on time and in compliance with the six principles (on time, type, amount, quality, place, and price). A specific fertilizer kiosk is equipped with an EDC (Electronic Data Capture) machine, which allows users to use it by swiping their finger across the screen [4]. When farmers redeem subsidized fertilizer, the amount of subsidized fertilizer that is allocated to them as well as the balance that is included on their tani card will be immediately lowered [5]. In addition to being able to be used for savings, the Tani card may also be used to pay payments for utilities like water and electricity. The Definitive Plan of Group Needs (RDKK) is used to determine the sort of subsidized fertilizer that will be offered to farmers as well as the amount of fertilizer that will be provided to them. Individual farmer groups, with the support of agricultural extension officers, are responsible for the preparation of RDKK.

Tasikmadu Sub-district is one of the sub-districts in Karanganyar Regency that has been implementing the Farmer Card Program from 2017. This program has been carried out since 2017. Despite the fact that it is being implemented, it continues to face a number of challenges originating from a variety of sources, which can impede the program's execution and the accomplishment of its goals. The amount of subsidized fertilizer that farmers receive is different and has a significant variation from the amount that was anticipated for the electronic RDKK. This is the primary issue that arises throughout the process of putting the Farmer Card Program into action in the Tasikmadu District. In order for the government to be able to provide better advantages for farmers, it is necessary to conduct an analysis of the execution of the Farmer Card Program. This analysis will serve as a reference for the government as it will be utilized to determine additional policies. The objectives of this study are 1) Describe and analyze the variables of non-formal education, land ownership area, farming experience and social environment as well as the effectiveness of the implementation of the Farmer Card Program in the distribution of subsidized fertilizers in Tasikmadu District, Karanganyar Regency; 2) Test and analyze the influence of non-formal education variables, land ownership area, farming experience and social environment on the effectiveness of the implementation of the Farmer Card Program in the distribution of subsidized fertilizers in Tasikmadu District, Karanganyar Regency. In line with this, researchers are interested in conducting research on "The Effectiveness of the Implementation of the Farmer Card Program in the Distribution of Subsidized Fertilizers in Tasikmadu District, Karanganyar Regency".

2. LITERATURE REVIEW

2.1 Program Effectiveness

Effectiveness is a successful achievement of a goal. A program or activity is said to be effective if the results achieved can meet the desired goals [6]. A program has variables that have a relationship with the structure and process as well as the output produced [7]. It is possible to say that a program is successful if the goals that have been designed for it are able to be satisfied in the desired manner. Organizational features, environmental variables, worker characteristics, and management policies and practices are all factors that have an impact on effectiveness [8].

The effectiveness of the program can be measured by the operational ability to carry out the work program in accordance with the previously set objectives [9]. The measurement of program effectiveness according to Campbell J.P in [10] is: a) Program success, the level of success against the program achievement targets that have been prepared. b) The success of the target is measured from the extent to which the goals of the program are on target based on the goals that have been set. c) Satisfaction with the program, measured by the success of the program in meeting the target needs. d) Input and output levels, the extent to which the goals can be achieved and show whether or not a program is successful in achieving its goals and targets. e) Achievement of the overall objectives, to find out the achievement of the overall objectives of a program measured by the objectives of the program that can be achieved and the impact caused after the implementation of the program, especially for the parties involved.

2.2 Farmer Card Program

The farmer card is a tool used to redeem subsidized fertilizers obtained by farmers. Farmers who get a farmer card must meet the predetermined requirements, namely (i) farmers must be members of farmer groups; (ii) The maximum land owned by farmers is 2 hectares. The farmer card functions as a debit card for receiving savings, subsidized loans and assistance that contains the identity of the farmer who owns the card and subsidized fertilizer payment transactions using an Electronic Data Capture (EDC) machine placed at a predetermined Complete Fertilizer Kiosk (KPL) [11].

2.3 Subsidized Fertilizer

The term "subsidized fertilizer" refers to fertilizer that is purchased and distributed with financial assistance from the government in order to meet the requirements of farmers. These subsidies are typically executed in accordance with government plans. In this context, the term "allocation of subsidized fertilizers" refers to the Regulation of the Minister of Agriculture and the Decree of the Minister of Agriculture concerning the Allocation and Highest Retail Price of subsidized fertilizers that are applicable in the present year. In accordance with Regulation Number 10 of 2022 issued by the Minister of Agriculture, which is titled "Procedures for Determining the Allocation and Highest Retail Price of Subsidized Fertilizers in the Agricultural Sector," the allocation of subsidized fertilizers in 2023 is subject to restrictions on the types of fertilizers that are available, specifically urea and NPK fertilizers. The distribution of fertilizer to farmers

is carried out by official retailers who have been appointed in their respective work areas based on the distribution of subsidized fertilizers in their respective areas [12].

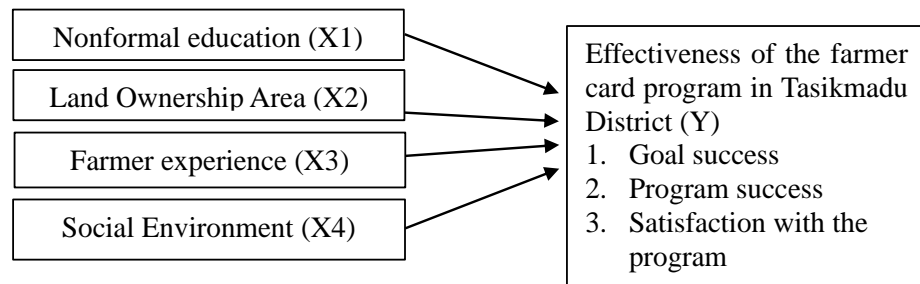Based on the result of the literature review and relevant articles, the concept of this research is as follows.

Figure 1: Thinking Framework

3. METHODS

The basic method used in this study is quantitative with purposive location determination in Tasikmadu District, Karanganyar Regency on the grounds that based on data from the Ministry of Agriculture in 2024, it is one of the regions with the most farmer card recipients in Karanganyar Regency. The population of this study is 3,380 people. Sampling was carried out using proportional simple random sampling by randomly narrowing down villages in Tasikmadu District into 3 villages, namely: Gaum Village, Pandeyan Village and Suruh Village using the roscoe formula in [13] namely the number of variables studied multiplied by 10 with a sample of 70 respondents. Primary and secondary sources of information are utilized in this study. The methods of data gathering that are utilized include conducting interviews, making observations, documenting and recording studies, and so on. For the purpose of this investigation, a multiple linear regression test was utilized as the method of data analysis.

4. RESULTS AND DISCUSSION

4.1 Factors Affecting the Effectiveness of the Farmer Card Program

1. Nonformal Education

Non-formal education is education obtained by farmers outside of formal education. According to [14], non-formal education can provide experience and increase farmers' insight through extension and training activities. Based on the non-formal education of the respondents in this study, it can be seen in the following table.

Table 1. The distribution of respondents was based on farmers' nonformal education.

Criteria	Category	Frequency (person)	Percentage (%)
≥4 times	Very high	5	7,1
3 times	High	53	75,7
2 times	Medium	12	17,2
1 times	Low	0	0,0
Never	Very low	0	0,0

Source: Processed Primary Data (2024)

Based on Table 1, it is known that non-formal education is included in the high category with the criteria that respondent farmers in Tasikmadu District participated in counseling activities three times. Farmers in Tasikmadu District are more active in coming to group meetings when farmers have problems in their farming. Counseling on the Farmer Card Program is given when

entering the planting season to provide information about the allocation of subsidized fertilizers or changes in information that occur.

2. Land Ownership Area

Land area is the amount of land used by farmers to be cultivated/planted in their farming. According to [15], the large or minimal results of agricultural business will affect farmers' income. Based on the area of land ownership of the respondents in this study, it can be seen in the following table.

Table 2. The distribution of respondents was based on farmers' land ownership area.

Criteria	Category	Frequency (person)	Percentage (%)
16.001-20.000 m2	Very extensive	5	7,1
12.001-16.000 m2	Vast	10	14,3
8.001-12.000 m2	Medium	15	21,4
4.001-8.000 m2	Narrow	10	14,3
≤4.000 m2	Very narrow	30	42,9

Source: Processed Primary Data (2024)

Based on Table 2, it is known that the land ownership area of respondent farmers in Tasikmadu Subdistrict is included in the very narrow category with the criteria of land area owned ≤4,000 m2. The narrowness of agricultural land tenure is due to the absence of agricultural land extensification in Tasikmadu Subdistrict. Agricultural land controlled by farmers will continue to experience fragmentation due to the process of inheritance and conversion of agricultural land.

3. Farmer Experience

Farming experience is the length of time that farmers use in pursuing their farms. According to [16], farmers with longer experience usually have better knowledge and skills. Based on the length of time farming respondents in this study can be seen in the following table.

Table 3. The distribution of respondents was based on farmer's length of farming.

Criteria	Category	Frequency (person)	Percentage (%)
>22 years	Very long	17	24,3
17-22 years	Long	29	41,4
11-16 years	Medium	17	24,3
5-10 years	Short	4	5,7
<5 years	Very short	3	4,3

Source: Processed Primary Data (2024)

Based on Table 3, it is known that the length of farming of respondent farmers in Tasikmadu District is included in the long category with a farming period of 17-22 years. The level of experience of farmers in Tasikmadu District is included in the old category because most of the farmers are elderly. Farmers have been running farming since childhood because they help their parents to meet their needs.

4. Social Environment

For farmers, the social environment is a significant aspect that plays a significant role in the management of their own farms. This is due to the fact that a person's conduct and discipline are a reflection of the environment in which he is situated [17]. Therefore, different social contexts in each location will have an effect on a person's behavior and discipline. As can be seen in the table that follows, the social context of the people who participated in this study is taken into consideration.

Table 4. The distribution of respondents was based on farmer's social environment.

Criteria	Category	Frequency (person)	Percentage (%)

≥4 elements	Very high	5	7,1
3 elements	High	53	75,7
2 elements	Medium	12	17,2
1 elements	Low	0	0,0
0 elements	Very low	0	0,0

Source: Processed Primary Data (2024)

Based on Table 4, it is known that the social environment is included in the high category with most farmers who know information about the Farmer Card Program through three elements of society. Most of the elements of society who are the source of information on the Farmer Card Program in Tasikmadu District are field agricultural extension workers, farmer groups, fellow farmers who use farmer cards, relatives/relatives and Complete Fertilizer Kiosks (KPL).

5. Effectiveness of the Tani Card Program in Tasikmadu Subdistrict, Karanganyar Regency

Effectiveness according to[18] is a measure of whether or not a program achieves its goals. The level of effectiveness of a program must be known so that it can be used as a benchmark for how the program that has been set runs and produces the desired output or not. The measurement of the effectiveness of the Farmer Card Program uses three measurement indicators according to Campbell in [10] namely the success of the target, the success of the program and satisfaction with the program. The analysis of the effectiveness of the Farmer Card Program in Tasikmadu District was carried out by grouping scores from questionnaires. The effectiveness category is divided into 5 categories, namely very effective, effective, moderately effective, ineffective and very ineffective. The following is a table of the distribution of respondents' scores in this study.

1) Goal Success

Based on the success of the target of the distribution of respondents' scores in this study, it can be seen in the following table.

Table 5. The distribution of respondents was based on goal success.

Criteria	Category	Frequency (person)	Percentage (%)
Highly effective	22-25	0	0,0
Effective	18-21	19	27,2
Quite effective	14-17	11	15,7
Ineffective	10-13	39	55,7
Highly ineffective	5-9	1	1,4

Source: Processed Primary Data (2024)

According to Table 5, it is known that the indicator of assessing the success of the target, the level of effectiveness of the execution of the Farmer Card Program, falls into the category of ineffective. This is the case because the indicator measures the success of the target. This indicator can be noticed by comparing the process that farmers follow in order to use their farmer cards with the protocol that the government has established for utilizing farmer cards. According to the findings of the questionnaire, it is known that the implementation of the farmer card is not in accordance with the provisions. This is because some of the respondents do not understand how to use the farmer card. This is due to the fact that the average age of the respondents, which includes the elderly, is between 55 and 87 years old, and the average level of formal education of the respondents is low, specifically elementary school. Additionally, the majority of the respondents do not manage or carry their own farmer cards, and they do not save money on their farmer card savings accounts.

Most respondents did not use the farmer card to its full potential, using it only to redeem subsidized fertilizer. Most respondents also do not use ATM cards, so the use of ATM machines is still unfamiliar to most respondents. The tani card has not fostered the habit of saving money, as

farmers prefer to deposit the money for subsidized fertilizer purchases with the fertilizer kiosk rather than the bank.

2) Program Success

Based on the success of the program, the distribution of respondents' scores in this study can be seen in the following table.

Table 6. The distribution of respondents was based on program success.

Criteria	Category	Frequency (person)	Percentage (%)
Highly effective	33,7-40,0	0	0,0
Effective	27,3-33,6	26	37,1
Quite effective	20,9-27,2	42	60,0
Ineffective	14,5-20,8	2	2,9
Highly ineffective	8.0-14,4	0	0,0

Source: Processed Primary Data (2024)

Based on Table 6, the indicators of measuring program performance, the level of effectiveness of the implementation of the Farmer Card Program, are classified as being in the category of being moderately effective. The Farmer Card Program's guiding principles—namely, an appropriate quantity, an appropriate type, and an appropriate price—are used to determine how this indication is evaluated. It is known, on the basis of the findings of the questionnaire, that the principles of the right kind and the right price have met or have reached the level of effectiveness at the effective criteria, however the principle of the appropriate amount is one of the criteria that is considered to be ineffective. The amount of subsidized fertilizer that the farmers who responded to the survey got is still insufficient to meet the prescribed fertilization demands. As a result, the perceptions of the respondents are typically negative or unsatisfactory. For the year 2024, the following is the percentage of subsidized fertilizer allotment that will be allocated in the Tasikmadu District.

Table 7. Comparison of the number of fertilizer recommendations with subsidized fertilizers received by farmers.

Type of fertilizer	Fertilizer recommendation (kg/Ha)	Type of subsidized fertilizer received by farmers (kg/Ha)
Urea	100	100
NPK	300	150

Source: Processed Primary Data (2024)

Based on Table 7, it is known that the comparison of the amount of balanced fertilization recommendations with subsidized fertilizers received by respondents per growing season. The difference in NPK fertilizer received by respondents is quite far from the balanced fertilization recommendation, which affects the respondents' assessment of the right amount principle because respondents feel that the amount of fertilizer received is very less or not in accordance with the needs of the land. To meet the lack of fertilizer needs, farmers have to buy non-subsidized fertilizer which is twice as expensive as subsidized fertilizer. The current price of subsidized NPK fertilizer is around IDR 115,000/50 kg, while the price of non-subsidized NPK fertilizer is IDR 45,000/5 kg or IDR 400,000/50 kg at a complete fertilizer kiosk.

3) Satisfaction with the Program

Based on the success of the program, the distribution of respondents' scores in this study can be seen in the following table.

Table 8. The distribution of respondents was based on Satisfaction with the program

Criteria	Category	Frequency (person)	Percentage (%)
Highly effective	25,3-30,0	9	12,9
Effective	20,5-25,2	54	77,1
Quite effective	15,7-20,4	7	10,0
Ineffective	10,9-15,6	0	0,0
Highly ineffective	6,0-10,8	0	0,0

Source: Processed Primary Data (2024)

Based on Table 8, it is known that the indicator of measuring satisfaction with the program, the level of effectiveness of the implementation of the Farmer Card Program is in the effective category. This indicator has six questions consisting of farmers' assistance in obtaining subsidized fertilizer from the Farmer Card Program, farmers' assistance from retailer kiosks and farmers' assistance with BRI bank services. Most respondents felt that the Farmer Card Program made it easier to get subsidized fertilizer. Respondents also felt helped by the presence of complete fertilizer kiosks close to where they live, which facilitates access to subsidized fertilizer by respondents. Regarding the results of the Tani Card Program, farmers feel that it is easier to get subsidized fertilizer and can be used for fertilizer needs in their farms.

4.2 The Influence of Factors Affecting Program Effectiveness on the Effectiveness of the Implementation of the Tani Card Program in the Distribution of Subsidized Fertilizers in Tasikmadu District, Karanganyar Regency

1. Coefficient of determination test

The coefficient of determination (R^2) is the magnitude of the contribution of the independent variable to the dependent variable. The coefficient of determination aims to measure how far the model's ability to explain the dependent variable. The coefficient of determination value approaches 1, the stronger the ability of variable X to explain variable Y [19].

Tabel 9. Coefficient of determination test results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,647	0,419	0,383	5,131787

Source: Processed Primary Data (2024)

The value of the adjusted R square in this research test is 0.383, as can be seen from Table 9, which provides this information. On the basis of these findings, it is possible to draw the conclusion that the independent variables, which include non-formal education (X1), land ownership area (X2), length of farming experience (X3), and social environment (X4), are able to explain variable Y (the effectiveness of the Tani Card Program in Tasikmadu District) by 38.3 percent, while the remaining 61.7 percent is influenced by other variables that were not investigated in this study.

2. F test

Used to show if all the independent variables associated have a joint effect on the dependent variable [20]. This test is done by comparing the calculated F value with the F table value at a certain level of significance.

Tabel 10. Simultaneous F test results

Model	F	Sig.
Regression	11,720	0,000

Source: Processed Primary Data (2024)

It is known that the F value that was calculated is 11,720, and the significance value is 0.000. This information is based on Table 10. Given that the sig value of this study, which is 0.000, is less

than 0.05, the findings are considered to be significant. On the basis of these findings, Hypothesis 1 (H1) is accepted, while Hypothesis 0 (H0) is rejected. Therefore, it is possible to draw the conclusion that the independent variables (non-formal education, land ownership area, farming experience, and social environment) influence the effectiveness of the implementation of the Tani Card Program in Tasikmadu District simultaneously or simultaneously.

3. Regression Equation Model

Multiple linear regression is a method of analyzing the relationship pattern between the dependent variable and the independent variable. The purpose of regression analysis is to obtain an estimate of one variable using other known variables [21].

Tabel 11. Test the regression equation

Model	B	Sig.	Keterangan
(Constant)	32,501	0,000	
Nonformal education (X1)	1,944	0,018	Significantly affected
Land ownership area (X2)	1,199	0,023	Significantly affected
Farmer experience (X3)	-1,140	0,100	Not significantly affected
Social environment (X4)	2,321	0,000	Significantly affected

Source: Processed Primary Data (2024)

Based on Table 11, the regression equation model can be written as follows.

$$Y = 32,501 + 1,944(X1) + 1,199(X2) - 1,140(X3) + 2,321(X4) + e$$

The constant value is 32.501 with a positive coefficient. The positive coefficient indicates that every time one unit of constant increases, the effectiveness of the program increases by 32.501. This assumes that the variable coefficients of non-formal education (X1), land ownership area (X2), length of farming (X3) and social environment (X4) have a fixed value or do not change. The following is an explanation of the partial multiple linear regression analysis results.

1) The effect of non-formal education on effectiveness

In Table 11, it is explained that the significance value of the non-formal education variable is smaller than the ϑ value, which is 0.018, which is less than the threshold of 0.05. A considerable impact of the non-formal education variable on the efficiency of the Tani Card Program in Tasikmadu District is demonstrated by the fact that the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted. The findings of this study are consistent with the findings of research conducted by [22], which indicates that the Farmer Card Program may benefit from the participation of individuals who have not had formal schooling. The goal of non-formal education is to alter the behavior of its target audience in order to provide them with vast agricultural and farming information, as well as a progressive attitude toward accepting innovations in farmer cards. This is done in order to ensure that non-formal education has a substantial impact on the Farmer Card Program.

According to the model of the regression equation, the coefficient value of the variable that represents non-formal education (X1) is 1.944 respectively. As indicated by the fact that the non-formal education variable coefficient has a positive value, the effectiveness of the Farmer Card Program in the Tasikmadu District is positively impacted by this positive value. The efficacy of the Farmer Card Program will rise by 1.944 percentage points for every one unit increase in the non-formal education variable, presuming that all of the other independent variables remain unchanged.

2) The effect of land ownership area on effectiveness

In Table 11, it is explained that the significance value of the land ownership area variable is smaller than the ϑ value, which is 0.023, which is less than the threshold of 0.05. The conclusion that can be drawn from this is that Hypothesis 0 is contradicted by Hypothesis 1, which states that the variable of land ownership area has a substantial impact on the efficiency of the Tani Card Program in the Tasikmadu District. There is a substantial association between the amount of land area and the adoption of the Farmer Card Program, as demonstrated by the findings of this study, which are in agreement with the findings of research [23]. The greater the amount of land that farmers own, the greater the chance that they will require a farmer card, which is a document that allows them to access subsidized fertilizer.

According to the model of the regression equation, the coefficient value of the variable that represents the land ownership area (X2) is exactly 1.199. The fact that the coefficient of the land ownership area variable (X2) has a positive value indicates that the Farmer Card Program in Tasikmadu District has a favorable influence on the effectiveness of farmer identification cards. The efficiency of the Farmer Card Program will rise by 1.199 percentage points for every one unit that is added to the land ownership area variable. This is assuming that all of the other independent variables remain unchanged.

3) The effect of farmer experience on effectiveness

In Table 11, it is explained that the significance value of the farming experience variable is higher than the ϑ value, which is expressed as 0.100 being more than 0.05. According to this, the hypothesis H0 is accepted, whereas the hypothesis H1 is denied. This indicates that the agricultural experience variable does not have a substantial impact on the efficiency of the Tani Card Program in the Tasikmadu District population. Farmers who have more than ten years of experience actually disagree with the Farmer Card Program and opt to redeem fertilizer directly. This is due to the fact that farmers find it difficult to redeem fertilizer using a farmer card and have a low interest in bank transactions. The findings of this study are in line with the findings of research conducted by [24].

According to the model of the regression equation, the value of the coefficient for the farming experience variable (X3) is -1.140. There is a negative influence on the efficiency of the Farmer Card Program in the Tasikmadu District, as indicated by the fact that the coefficient of the agricultural experience variable (X3) has a negative value. Assuming that all of the other independent variables remain unchanged, the efficiency of the Farmer Card Program will fall by 1.140 percentage points for every one unit that is added to the agricultural experience variable.

4) The effect of social environment on effectiveness

According to Table 11, it is explained that the significance value of the farming experience variable is smaller than the ϑ value, which is expressed as 0.000 < 0.05. Therefore, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. This indicates that the social environment variable has a considerable impact on the efficiency of the Farmer Card Program in the Tasikmadu District. There is a correlation between the social environment and the perceptions of farmers who participate in the BUMDes program, as demonstrated by the findings of this study, which are in agreement with the findings of research conducted by [25]. The findings of this study indicate that the degree of farmers' impressions of the Farmer Card Program is positively correlated with the number of social connections that farmers have with their social environment, which includes their families, PPL, farmer groups, community leaders, other farmers, and neighbors.

According to the model of the regression equation, the value of the coefficient for the social environment variable (X4) is 2.321. A favorable influence on the efficiency of the Farmer Card Program in Tasikmadu District is demonstrated by the fact that the coefficient of the social environment variable (X4) has a positive value because of its positive influence. Assuming that all of the other independent variables remain same, the efficiency of the Farmer Card Program will

increase by 2.321 percentage points for every one unit that is added to the social environment variable.

CONCLUSION

Based on the results of the analysis and discussion of the effectiveness of the implementation of the Tani Card Program in the distribution of subsidized fertilizers in Tasikmadu District, Karanganyar Regency, conclusions can be obtained, among others:

1. The conditions of the factors that influence the effectiveness of the implementation of the Tani Card Program in the distribution of subsidized fertilizers in Tasikmadu Subdistrict are as follows.
    a. Non-formal education of the respondents is in the high category because 75.7 percent attended counseling three times a year.
    b. The size of land ownership is generally in the low category. Based on land ownership status, 70 percent own their own land with 42.9 percent having a land area of ≤4,000 m2.
    c. Farming experience is in the long category, with 41.4 percent of respondents having carried out farming activities for 17-22 years.
    d. The social environment is generally in the high category. A total of 3 elements of the community provide information about the Tani Card Program, including a. field agricultural extension workers; b. complete fertilizer kiosks; and c. farmer groups.
    e. The effectiveness of the implementation of the Tani Card Program in the distribution of subsidized fertilizer in Tasikmadu Subdistrict is as follows.
        i. Ineffective in the dimension of measuring the effectiveness of target success with a percentage of 55.7 percent or 39 respondents.
        ii. Quite effective in the dimension of measuring the effectiveness of program success with a percentage of 60 percent or 42 respondents.
        iii. Effective in the dimension of measuring the effectiveness of satisfaction with the program with a percentage of 77.1 percent or 54 respondents.
        iv. In general, the level of effectiveness of the implementation of the Tani Card Program in the distribution of subsidized fertilizers in Tasikmadu District is categorized as quite effective with a percentage of 55.7 percent or 39 respondents.
2. Factors that influence the effectiveness of the implementation of the Tani Card Program in the distribution of subsidized fertilizers in Tasikmadu District, Karanganyar Regency, namely non-formal education, land ownership area and social environment. While those that have no effect are farming experience. Simultaneously, the factors that influence program effectiveness affect the effectiveness of the implementation of the Farmer Card Program in the distribution of subsidized fertilizers in Tasikmadu District, Karanganyar Regency.

    Based on the results of research and discussion that has been carried out, suggestions that can be given are: For field agricultural extension workers in Tasikmadu District, it is expected that they always assist farmers and complete fertilizer kiosks in operating farmer cards, collect farmer card PINs to minimize farmers forgetting their farmer card PINs. Farmers are expected to use the farmer card more in accordance with the benefits of the Farmer Card Program so that its use is more optimal. For the Karanganyar Regency Agriculture and Food Security Service, it is hoped that the provision of quotas or the amount of fertilizer must be more tailored to the needs of

farmers' land, the prices set for subsidized fertilizers and non-subsidized fertilizers must be correct in accordance with the regulations that have been made so as not to cause farmers' disappointment with the existence of farmer cards.

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