IJEBE INTERNATIONAL JOURNAL OF ECONOMICS, BUSINESS AND ENTREPRENEURSHIP

Vol.7, No.1, 2024

The Effectiveness of Subsidized Fertilizer Distribution to Farmers in North Lampung District

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ABSTRACT

The successful farmer card program was initiated by the Lampung Regional Government. One of the successful farmer card programs is to streamline the distribution of subsidized fertilizer with the aim that only small farmers are the targets of this subsidy/assistance. The business fields that have a major influence on the economic structure of Lampung Province are Agriculture, Forestry, and Fisheries; as well as the Processing Industry. This research was carried out at the Plentis Tani Kiosk and Integrated Kiosk in Mersi, which is located at Jl. Senopati No. 78 Arcawinangun, Semuli Jaya, North Lampung Regency. The results of the research show that there is a difference in the effectiveness of the distribution of subsidized fertilizer using Tani Berjaya cards and the effectiveness of the distribution of subsidized fertilizer without Tani Berjaya cards. The distribution of subsidized fertilizer using the farmer card pattern based on the six right principles is quite effective. In detail, the effectiveness of distribution of subsidized fertilizer using the farmer card pattern in terms of right price, right place, right time, right quality, and right type is classified as ineffective. The distribution of subsidized fertilizer using the Berjaya Farmer Card pattern, in terms of the exact amount, is classified as ineffective.

Keywords: Effectiveness, Successful Farmer Card, and North Lampung.

INTRODUCTION

Indonesia is still classified as a developing country, the government continues to strive for progress in the economic, technological, social, HR (Human Resources) fields, and so on. The agricultural sector is one sector that has a strategic role in supporting the Indonesian economy (Setiawan & Prajanti, 2016). Effectiveness in the agricultural sector refers to government programs with an illustration of how much the agricultural sector contributes to providing food and industrial raw materials, earning foreign exchange, absorbing labor, the main source of income for rural households, and playing a role in efforts to provide food. Policies from government programs can be said to be effective if people receive benefits from organic subsidies to ease the burden of providing and using

fertilizer. Therefore, its implementation follows the working principle or what is called Principle 6 (six) Correct (the right amount, type, time, place, quality, and price) as well as the provision of banking services for farmers based on the infrastructure bureau's statement "Successful Farmer Card".

The successful farmer card program was initiated by the Lampung Regional Government. One of the successful farmer card programs is to streamline the distribution of subsidized fertilizer with the aim that only small farmers are the targets of this subsidy/assistance. The provision of subsidized fertilizer is aimed at plantation and rice field farmers. The business fields that have a major influence on the economic structure of Lampung Province are Agriculture, Forestry, and Fisheries; and Processing Industry (BPS, 2016-2020). To increase farmers' income and empower farmers through implementing agricultural development programs, the Lampung Regional Government created the Victorious Farmer Card program which is regulated in Lampung Governor's regulation number 9 of 2020 (Lampung Gubernatorial Regulation, 2020).

Where there are 10 indicators that must be met to get the Berjaya farmer card program, namely: a) Opening a bank account at a bank that has collaborated with the Berjaya Farmer Card application (Bank Lampung, Bank Mandiri, Bank BRI and Bank BNI) , b) If you already have one account of one of these banks, you must empty the existing account for transaction purposes in the Berjaya farmer card program, c) Enter the Account Number into the KPB Application Account, d) Be willing to prepare capital for the Farming Business in accordance with what is stated in the Farming Business Plan (RUT) in the KPB application, e) Willing to apply for access to Capital, either KUR from a Bank or other financial institution that has become a KPB Member, f) Willing to carry out standing instructions for payment transactions contained in the Farming Business Plan in the KPB application, g) Funds that have been deposited in the bank or funds from loans from KUR or from other financial institutions, willing to be kept (hold) temporarily for farming business planning purposes, h) Willing to sell the harvest to KPB members according to the prevailing market price, i) Taking of the Farming Business Products ordered according to the Farming Business Plan, such as: Fertilizer/Pesticides and seeds are carried out in accordance with the notification information in this application, j) Follow all the terms and conditions that apply in the Berjaya Farmer Card Application.

The benefits of the Berjaya Farmer Card Application provided to farmers include a) Making it easier for farmers to obtain capital, b) Business Insurance and other insurance, c) Social facilities from government and private programs (scholarships for farmers' children and other social assistance), d) Marketing certainty harvest results at the best prices, guidance, both cultivation, technology, and downstream, e) Business financial information and reports, f) Latest information on business technology recommendations, g) Certainty in the availability of fertilizers, seeds , medicines both for use in food crops and plantations, livestock and fisheries, both subsidized and non-subsidized.

The largest role in the formation of North Lampung's GRDP in 2020 was produced by the Agriculture, Forestry, and Fisheries business fields, reaching 36.90%. The business sector with the second largest role is the processing industry which reaches 13.32%. Meanwhile, the business sector with the third largest role is wholesale and retail trade,

car and motorbike repairs, which reached 12.58%. Meanwhile, the role of other business fields only makes a fairly small contribution, namely under 10%. North Lampung's economy in 2020 experienced a contraction or negative growth of -1.45 percent. Similar to the economic growth of North Lampung, the economy of Lampung Province also experienced a contraction of -1.67 percent. Minus growth in North Lampung in 2020 is the deepest minus growth in the economic history of North Lampung. This is due to the Covid-19 pandemic which has hit all levels of society and occurred in all regions and even throughout the world.

Since the launch of the Berjaya Farmer Card in the North Lampung area, it has not shown good implementation progress as expected. Planning for the use of fertilizer by farmer groups, the location of fertilizer selling kiosks that are far from farmers' locations, the type of fertilizer needed is not always available, and the volume of fertilizer to be purchased is not efficient enough in terms of transportation , are several factors that hinder the implementation of the victorious farmer card in the field. It must be acknowledged that there are still many farmers who do not understand and comprehend the use of farmer cards. The lack of effective implementation of socialization and promotion at the farmer level by stakeholders is thought to have contributed to the low utilization of the successful farmer card. In connection with this problem, the question arises as to whether farmers have received complete information regarding the Berjaya Farmer Card and what farmers understand and perceive about the benefits and implementation of the Berjaya Farmer Card.

The success of government policy in regulating fertilizer purchases for farmers can be seen to what extent the service has been met according to farmers' needs. As a result of interviews conducted by researchers with one of the employees of the North Lampung Agriculture Service regarding the Berjaya Farmer Card, data on the development of KPB as of September 3 2021 was obtained from 23 sub-districts in North Lampung, 10,249 registered farmers received KPB, while the total number of farmers who were members of farmer groups and registered in the 2021 RDKK numbered 58,000 people (BPS North Lampung, 2016). Judging from this data, there are still many farmers in North Lampung who have not received the Berjaya Farmer Card and their use is still very minimal. This is because there are still many farmers who are reluctant to use them, don't know how to use them, or have problems with the swiping machines at the kiosks.

The fertilizer subsidy policy is considered to have a positive impact on increasing the productivity of the agricultural sector and farmers' income, especially food crops (Susila, 2010). The fertilizer subsidy policy aims to support the agricultural sector by providing input subsidies through determining the HET for subsidized fertilizer. The subsidized fertilizer policy has been proven to be able to increase the harvest area and national rice production (Hermawan, 2014); Santoso, 2015). However, for the benefits of fertilizer subsidies for agriculture, the government has to spend quite a bit of budget on the subsidy program. However, in Sukma Dwijayanti's research (2020), the distribution of fertilizer subsidy benefits based on land area obtained progressive results, although the first group of farmers with land areas of less than 5000 square meters only enjoyed fertilizer subsidies of 2.2% of the total subsidies provided. Meanwhile, the distribution of benefits based on the level of farming income per planting season produces regressive

results. This is because farmers who have farming incomes of more than IDR 6,500,000.00 benefit from subsidies amounting to 67.1% of the total fertilizer subsidy. Meanwhile, the effectiveness of the fertilizer subsidy policy which is based on indicators of right price, right quantity, right time, and right place cannot be categorized as effective with an overall percentage of 43.28 percent. This is because the price of fertilizer is above the highest retail price, the amount of fertilizer used by respondents is not according to recommendations from the government, and there is a scarcity of fertilizer as the planting season approaches.

LITERATURE REVIEW

Agricultural production economics is defined as the use of economic theory in agricultural commodity production activities (Daniel, 2004: 8). Aspects studied in agricultural production economics include (1) agricultural land management objectives; (2) output options to be produced; (3) resource allocation; (4) assumptions of risk and uncertainty; and (5) the competitive environment faced by farmers. The transformation of various inputs (resources) into outputs (commodities) is shown by a production function. This function is defined as a rule that relates each value of a variable (function domain) to a value in another variable (function range). One of the fundamental conditions in production economics is the law of diminishing marginal returns. This law states that if a unit of variable input is added to one or more units of fixed input, then after a certain point, each additional unit of variable input will produce an additional decreasing amount of output. Because units of variable input are added to the fixed input, there is a change in the proportion of fixed and variable input. This change in proportion causes the law of diminishing returns, often called the law of variable proportions.

The production function that has long been known and widely used is the neoclassical production function. The basic concept of this production function is that if the use of an input is increased, then the productivity of the input concerned first increases. However, after reaching a certain point (inflection point), input productivity then decreases. The inflection point is thus the point at which increasing marginal returns end and the beginning of diminishing marginal returns. Eventually, input productivity will reach a maximum point and then begin to decline. This condition is generally found in the excessive use of fertilizer by farmers which ultimately disrupts (detrimentally) plant productivity.

According to Sukirno (2009) income is income that comes from the costs of production factors or productive services. This understanding shows that income is all income from both the costs of production factors and the total output produced for all production in an economy within a certain period. According to Soekartawi (2002), Income is the difference between receipts (TR) and all costs (TC). According to Boediono (2000), the income of a member of the community is the result of his "sale" of the production factors he owns to the production sector. In short, income is determined by the number of production factors owned, and the price per unit of each production factor. These prices are determined by the forces of supply and demand in the production factor market. According to Gilarso in Phahlevi (2013), price is a very important economic

phenomenon and greatly influences society in determining the amount of goods and services it consumes, because each item and its determining factors are not free to influence prices. If the price of some goods increases, producers are encouraged to produce those goods. As a result, production can be increased so that income will increase.

METHODS

This type of research uses a basic method, namely the analytical descriptive method, namely research that attempts to focus on solving problems as they exist when the research is carried out. Existing data is collected, compiled, analyzed, and explained then. Data analysis in this research used quantitative and qualitative descriptive, as well as paired sample tests. Quantitative and qualitative descriptive methods are used to measure the effectiveness of fertilizer subsidy policies based on six main indicators, namely price accuracy, location accuracy, time accuracy, quality accuracy, type accuracy, and quantity accuracy. A paired sample test is used to compare the effectiveness of subsidized fertilizer distribution with a farmer's card pattern and without a farmer's card. This research was carried out at the Plentis Tani Kiosk and Integrated Kiosk in Mersi, which is located at Jl. Senopati No. 78 Arcawinangun, Semuli Jaya, North Lampung Regency, Lampung which is one of the places to trade or distribute subsidized fertilizer allocations at the highest retail price depending on the type of fertilizer which is intended to be given to farmers in Semuli Jaya District.

Table 1. Operational Definition of Variables

Indicators	Sub Indicators	Scale
The right price is the price received by farmers by the highest retail price (HET) set by the government.	a. The accuracy of the price of subsidized urea fertilizer is by the HET price b. The accuracy of the SP-36 subsidized fertilizer price is by the HET c. The accuracy of the ZA subsidized fertilizer price is by the HET. d. The accuracy of the NPK subsidized fertilizer price is by the HET. e. The accuracy of the price of organic subsidized fertilizer is by the HET price.	Ordinal
The right place is where farmers get appropriate subsidized fertilizer, namely official distributors/retailers	Precise locations for subsidized fertilizers are available at official retail kiosks	Ordinal
On-time is the distribution of subsidized fertilizer to farmers according to the distribution plan and it is always there for every farmer who needs it	a. Timeliness of subsidized fertilizer when it will be used by farmers. b. Ease of getting subsidized fertilizer when needed.	Ordinal
The exact amount is the amount of subsidized	The accuracy of the amount of subsidized fertilizer used by farmers is by the	Ordinal

fertilizer used by farmers in farming, namely urea a, SP-36 fertilizer at 150 kg/ha, ZA at 100 kg/ha, NPK at 150 kg/ha, and Organic at 500 kg/ha .	recommendations for balanced fertilization	
Correct quality in conformity with the quality assurance set by SNI or ISO 9001	The accuracy of the quality of subsidized fertilizer obtained by farmers with the SNI logo	Ordinal
The right type is a condition where the type of subsidized fertilizer matches the farmer's fertilizer needs	The type of subsidized fertilizer received by farmers is appropriate to their needs	Ordinal
Benefits of e-KPB		Ordinal

Source: Research Process, 2023

The sampling technique or sampling technique in this research is purposive sampling, namely the sample is selected based on considerations or subjective research from the research, so, in this case, the researcher determines for himself which respondents are considered to represent the population (Silalahi, 2012, p. 313). And using Gay and Diehl's theoretical sampling method, namely 10% of the existing population. In qualitative research, population is defined as a generalized area consisting of objects/subjects that have certain qualities and characteristics determined by the researcher to be studied and then draw conclusions. Meanwhile, the sample is part of the population (Sugiyono, 2015, p. 215). The population in this study was 279 farmers. To determine the sample size, the Slovin Method is used as follows:

$$n = \frac{\mathrm{N}}{1 + \mathrm{N}\ \mathrm{e}^2} = \frac{279}{1 + (279)(0{,}1)^{\ 2}} = 28$$

Information:
n = sample size
N = population size
e = Tolerable sampling error is 10%.
Sampling of 28 of the 279 populations was carried out using

RESULTS

Age based on the Big Indonesian Dictionary (KBBI) is a unit of time a person lives or exists since being born or held. Age or ages can affect the mindset, decision-making, and actions that will be taken by farmers. A young person is usually more critical in expressing what they feel and what happens around them.

Table 2. Age of Respondents

Age (years)	Number of Farmers (people)	Percentage (%)
<30	12	14
31-40	20	24
41-50	24	29
51-60	26	31

>60	2	2
Amount	**84**	**100**

Source: Primary Data, Research Data Processing Results, 2023

Based on Table 2, it can be seen that the majority of farmers are of productive age, namely 82 people are of productive age. Rakhmat (2007) revealed that groups of parents will produce patterns of action that are definitely different from groups of young people. Age can also describe a person's experiences so that there are variations in their actions based on their age. The productive age generally tends to have a higher level of willingness, enthusiasm and ability to work. The age difference between the respondent farmers does not cause difficulties in interacting with each other or collaborating between farmers.

The formal education level is the level of education that farmers have successfully pursued through educational institutions authorized by the Ministry of Education and Culture. The farmer card program is aimed at farmers who mostly have a low educational background with limited ability to apply technology. The success of this program is supported by farmers' knowledge in using the farmer card. Farmers' knowledge is thought to increase the effectiveness of the implementation of the farmer card program (Jorgi et al., 2019).

Table 3.Farmer Formal Education Level

Formal Education Level	Number of Farmers (People)	Percentage (%)
Elementary school	19	23
Junior high school	16	19
Senior High School	29	35
College	20	24
Amount	**84**	**100**

Source: Primary Data, Research Data Processing Results, 2022

Table 3 explains that the average farmer has a formal senior high school (SMA) education level of 29 people.The level of formal education that farmers have can influence the farmer's ability to determine attitudes and actions in using the successful farmer card, because the level of formal education will influence the level of knowledge and patterns (Listiana, 2018). Apart from that, according to Rizqi, Gitosaputro and Silviyanti (2019) and Soeharjo (1973) the level of education will greatly influence farmers' knowledge and ability to search for and obtain the information that has been provided, thereby influencing farmers' attitudes, actions and mindsets in making decisions regarding an innovation.

WisdomnsubsidyFertilizers really help farmers in carrying out their farming activities. Subsidized fertilizer can ease the costs that farmers have to incur to run a farming business. The fertilizer subsidy policy starting in 2020, especially in the Lampung area, is carried out using the Berjaya Farmer Card. The government collaborates with state-owned banks, namely BRI, BNI and Mandiri, in making the Berjaya Farmer Card. The farmer's card is a debit card that can be topped up and then used to make transactions to purchase subsidized fertilizer at registered official kiosks. To get a Berjaya Farmer Card, farmers must first register themselves as members of a farmer group, after that the farmer must submit the required documents consisting of a photocopy of e-KTP, proof of land ownership (maximum 2 hectares of paddy field land) and proof of payment

of land tax. then these files will later be verified by the extension officer (PPL).Based on Minister of Agriculture regulation number 49/Permetan/SR.310/12/2020, the highest retail price (HET) of subsidized fertilizer in line IV (official retailers/kiosks) can be seen in Table 4.

Table 4. Highest retail price of subsidized fertilizer in line IV

Fertilizer Type	Price	
	Rp/KG	Rp/ZAK
Urea	2,250	112,500
SP36	2,400	120,000
ZA	1,700	85,000
NPK	2,300	115000
Organic	800	32,000

Source: Permetan 49/Permetan/SR.310/12/2020

Subsidized fertilizer packaging as stated in Minister of Industry Regulation Number 69/M-IND/PER/8/2015, states that subsidized fertilizer packaging for Urea, SP36, ZA and NPK types is 50 Kg/Zak while organic fertilizer is 40kg/Zak. In order to secure the distribution of subsidized fertilizer, the subsidized fertilizer packaging must have the name of the Implementing BUMN written on it and have an additional label reading "Government Subsidized Fertilizer, Goods under Control" which is easy to read and not easily lost/erased. Specifically, ZA fertilizer is given an orange color, while Urea fertilizer is given a pink color, which is intended to facilitate supervision of the distribution of subsidized fertilizers carried out by producers, distributors and official retailers.

The distribution of subsidized fertilizer must fulfill six principles, namely the principles of right price, right quantity, right time, right place, right quality and right type. These six correct principles must be fulfilled for both subsidized fertilizer using a farmer's card and subsidized fertilizer without using a Berjaya Farmer Card. The effectiveness of subsidized fertilizer distribution is based on the six correct principles, namely as follows:

Right Price is a condition where the purchase price of subsidized fertilizer by farmers in cash is the same as the HET. The price of subsidized fertilizer at retail kiosks must be in accordance with the Highest Retail Price (HET), which has been explained previously that the highest retail price for Urea fertilizer is IDR 2,250/Kg, SP36 fertilizer IDR 2,400/Kg, ZA fertilizer IDR 1,700/Kg, NPK fertilizer IDR .2300/Kg and organic fertilizer Rp. 800/Kg. The principle difference in the exact price between subsidized fertilizer using a farmer card and subsidized fertilizer without using a successful farmer card can be seen in Table 5.

Table 5. Percentage of Accuracy in Subsidized Fertilizer Prices

Sub Indicator	Answer					Max score	Effectiveness (%)
	SS	S	R	TS	STS		
	5	4	3	2	1		
The accuracy of the SP-36 subsidized fertilizer price is in accordance with the HET	3	20	10	42	9	420	51.43%

The accuracy of the price of subsidized urea fertilizer is in accordance with the HET price	16	50	7	10	1	420	76.67%
The accuracy of the ZA subsidized fertilizer price is in accordance with the HET.	2	20	8	44	10	420	50.47%
The accuracy of the NPK subsidized fertilizer price is in accordance with the HET.	8	59	7	8	2	420	75%
The accuracy of the price of organic subsidized fertilizer is in accordance with the HET price.	3	20	10	45	6	420	52.61%

Source: Primary Data, Research Data Processing Results, 2022

Based on Table 5 above, it is known that ZA, SP36 and Organic fertilizers are included in the ineffective category, this is because these three fertilizers will no longer be subsidized fertilizers in 2022, based on Minister of Agriculture Regulation 10 of 2022, only NPK and Urea fertilizers will be subsidized fertilizers for farmers. . The accuracy of urea prices with HET has an effectiveness of 76.67% and the accuracy of NPK fertilizer prices with HET has an effectiveness of 75%. Based on these results, it can be seen that the accuracy of prices for both urea and NPK fertilizers with HET is quite effective.The basic principle used to assess how well subsidized fertilizer is distributed is determining the right price. Based on table 4.2, it can be seen that the prices paid by respondents are different from the prices set by the government. Respondents usually buy urea subsidized fertilizer at a price of IDR. 135,000.00 and NPK 145,000.00, this price exceeds the highest retail price. This is caused by increasing transportation and purchasing costs for small-scale farmers, where delivery methods are not uniform from one trader to another. Retailers may decide to increase fertilizer prices from the set prices because transportation costs increase. This is in line with research results (Nugroho et al., 2018), which found that transportation costs are not yet efficient, where retailer locations are sometimes far from farmers, thereby increasing fertilizer selling prices..

The next indicator of the effectiveness of subsidized fertilizer distribution is the right place indicator. Right place means that the place used to buy subsidized fertilizer in line IV is an official registered retail kiosk. The results of research regarding the accuracy of distribution locations for subsidized fertilizer can be seen in Table 6.

Table 6. Percentage of Accuracy in Subsidized Fertilizer Places with Patterns Without Berjaya Farmer Cards and with Berjaya Farmer Cards

Sub Indicator	Answer					Max Score	Effectiveness
	SS	S	R	TS	STS		
	5	4	3	2	1		
Precise locations for subsidized fertilizers are available at official retail kiosks	37	36	6	5	0	420	85%

Source: Primary Data, Research Data Processing Results, 2022

Based on Table 6, the research results show that the effectiveness of the right place is included in the effective category, namely 85%. In good practice in the field, using the Berjaya Farmer Card to collect subsidized fertilizer is the same at the retail kiosk on line IV. This is not in accordance with the results of Tina's (2013) research, where based on precise indicators, the effectiveness of subsidized fertilizer distribution in Bogor Regency was classified as ineffective with a percentage of 11.67%. Based on the results of an interview with the owner of the Fadila Tani kiosk, Anto, currently in North Lampung, Abung Semuli sub-district, only the Fadila Tani kiosk has been used and that has only been used once. Where there are still unofficial subsidized fertilizer retail kiosks in Abung Semuli District. This is because the Fertilizer and Pesticide Monitoring Commission (KP3), which collaborates with the security forces, has not routinely and periodically carried out supervision of subsidized fertilizer retail kiosks. If there is an unofficial subsidized fertilizer retail kiosk, the profits will be processed legally in accordance with applicable regulations. There is 1 official kiosk that distributes subsidized fertilizer to farmers in Abung Semuli District, where specifically for purchasing subsidized fertilizer using the Berjaya Farmer Card, the place of purchase has been divided, where farmers in Semuli Jaya Village have only used it once, after that there is no longer any use of the Berjaya Farmer Card. In the application, the purchase of subsidized fertilizer with the Berjaya Farmer card must be done at a designated place, otherwise farmers will not be served their purchases. For example, farmers in Semuli Jaya Village must buy subsidized fertilizer at Mr. Anto's official kiosk, if farmers buy subsidized fertilizer at Mr. Agus's kiosk located inSemuli Rayathen the purchase cannot be served.

The next indicator of the effectiveness of subsidized fertilizer distribution is the timely indicator.In other words, when farmers use these fertilizers, there is no shortage of subsidized fertilizers. Timeliness shows whether subsidized fertilizer is always available when farmers need fertilization. The timeliness of distribution of subsidized fertilizer can be seen in Table 7.

Table 7. Timeliness Percentage of Subsidized Fertilizer with the Successful Farmer Card Pattern and Without the Successful Farmer Card Pattern

Sub Indicator	Answer					Max Score	Effectiveness
	SS	S	R	TS	STS		
	5	4	3	2	1		
Timeliness of subsidized fertilizer when it will be used by farmers.	17	42	9	14	2	420	73.8%
Difficulty in getting subsidized fertilizer when needed.	7	27	4	44	2	420	61.67%

Source: Primary Data, Research Data Processing Results, 2022

Based on Table 7, it can be seen that the distribution of subsidized fertilizer in North Lampung on the timely indicator is quite effective.The government must pay attention to this situation even though it is included in the quite effective category. The delay in providing subsidized fertilizer is caused by several things, especially the increasing need for fertilizer during the planting season which causes queues. Apart from that, subsidized fertilizer often arrives late and subsidized fertilizer arrives after the planting season has passed which causes farmers not to fertilize at all at the start of the planting season. This is in line with research by Dina LP, et al., (2022) which states that

the distribution of subsidized fertilizer sometimes experiences problems but with rare frequency..Conditions in the field where there is redemption of subsidized fertilizer without a successful farmer card, this has resulted in farmers are freed to buy subsidized fertilizer. This results in unequal distribution of subsidized fertilizer, automatically there are some farmers who do not receive subsidized fertilizer. Meanwhile, after using the Berjaya Farmer Card, farmers in purchasing subsidized fertilizer are limited to their existing fertilizer allocation so they can no longer buy other people's quota of fertilizer so that fertilizer distribution is more even. After the existence of the farmer's card, sometimes there are farmers who are outside the allocation looking for subsidized fertilizer. This problem causes subsidized fertilizer kiosk retailers to feel sorry if it is not given to farmers who need it even though the subsidized fertilizer is distributed from line III (district level distributor) to line IV (subsidized fertilizer retailers) is in accordance with the allocation from farmer data or RDKK. With farmers outside the region purchasing subsidized fertilizer, it is hoped that the government will provide the excess subsidized fertilizer to retailers or above the dosage from the RDKK data. The scarcity of subsidized fertilizer occurred before the existence of farmer cards, namely in 2011 due to the change in the color of Urea fertilizer from white to pink with the aim of distinguishing between subsidized and non-subsidized fertilizer. Subsidized urea fertilizer is pink, while non-subsidized urea is white. Around 2012, fertilizer availability tends to return to normal.

The next indicator of the effectiveness of subsidized fertilizer distribution is the right amount. The right amount means that the use of subsidized fertilizer must be in accordance with the recommendations for balanced fertilization according to location specifications. Based on research from the Lampung Agricultural Technology Assessment Center, it recommends the right time and dose of fertilization. The correct fertilizer recommendation is a dose of 1000 Kg/Ha of organic fertilizer, 100 Kg/Ha of ZK fertilizer and 300 Kg/Ha of ZA fertilizer. Fertilization is given in two stages, namely basic fertilization and fertilization after planting. Basic fertilization is given at a rate of 1000 kg of organic fertilizer, while fertilization after planting is 100 kg of ZK fertilizer and 300 kg of ZA fertilizer. The percentage of farmers who use fertilizer according to recommendations can be seen in Table 8.

Table 8. Percentage of Accuracy in the Amount of Subsidized Fertilizer with the Successful Farmer Card Pattern and Without the Successful Farmer Card Pattern

Sub Indicator	Answer					Max Score	Effectiveness
	SS	S	R	T.S	STS		
	5	4	3	2	1		
The accuracy of the amount of subsidized fertilizer is in accordance with the recommendations for balanced fertilization	3	28	9	32	12	420	54.76%

Source: Primary Data, Research Data Processing Results, 2022

The results of the effectiveness research in terms of exact quantities can be seen in Table 4.5 above, which is measured based on the use of fertilizer by respondents on each area of land. The results of the research show that the effectiveness of subsidized fertilizer on the exact indicator is less effective, namely 54.76%.Crop yields must be maintained at a constant level with the right amount of fertilizer. Soil and plants will be affected by a lack or excess of fertilizer, so proper application is required.. This is due to the lack of outreach efforts from the government to apply balanced fertilization so that production results are maximum as well as fertilizer doses that are not excessive. Excessive use of chemical fertilizers also causes a decrease in soil fertility and increases production costs in farming. This is in line with the results of Tina's (2013) research, where based on precise indicators, the effectiveness of subsidized fertilizer distribution in Bogor Regency was classified as ineffective with a percentage of 49.34% due to a lack of education from the government to farmers in Bogor Regency. Apart from that withThis often occurs as a result of problems with the distribution process which results in smaller farmers' rations, due to a reduction in the subsidized fertilizer budget so that the amount of subsidized fertilizer allocation is not the same as the RDKK submission that has been prepared by farmer groups together with local PPL officers. The research results are in line with the research results of Nugroho, et al (2018) where the percentage of accurate numbers is smaller than the inaccuracy, or in other words it is not effective with a percentage of 28.57%. Farmers use fertilizer intended for food and agricultural commodities and secondary crops and then use it for other crops so that the use of fertilizer for food crops and secondary crops tends to be less, which is a factor causing this ineffectiveness.

Another indicator of the effectiveness of subsidized fertilizer distribution is appropriate quality. Correct quality means that the subsidized fertilizer must be SNI certified which is marked by the SNI logo on the subsidized fertilizer packaging. The percentage of accuracy in the quality of subsidized fertilizer can be seen in Table 4.6.

Table 9. Percentage of Quality Accuracy of Subsidized Fertilizer With the Successful Farmer Card Pattern and Without the Successful Farmer Card Pattern

Sub Indicator	Answer					Max Score	Effectiveness
	SS	S	R	T.S	STS		
	5	4	3	2	1		
The accuracy of the quality of subsidized fertilizers received is those with the SNI logo	44	38	1	1	0	420	89.76%

Source: Primary Data, Research Data Processing Results, 2022

Based on Table 4.6, it is known that the effectiveness of the quality accuracy of subsidized fertilizer reached 89.76%, including the effective category. This shows that in terms of quality accuracy, the distribution of subsidized fertilizer using the Berjaya Farmer Card or not using the Berjaya Farmer Card is said to be effective. This is not in accordance with the opinion of Rusydiana and Renoningsih (2016) where if viewed from a precise quality perspective, the effectiveness of subsidized fertilizer distribution in Pakis village, Ampeldento subdistrict, Malang Regency is classified as quite effective with a percentage of 77.14%. This happened because of the fertilizer that all respondents in the subdistrict gotAbung Semulicomes from official retailers where the fertilizer must be

SNI certified, the regulations of which are contained in the Regulation of the Minister of Industry of the Republic of Indonesia Number 17/M-IND/PER/3/2016 which contains Product Certificates for Using the SNI Pupuk Mark, which is then called SPPT-SNI fertilizer which is a certificate and issued by the Product Certification Institute (LSPro) to producers who are capable of producing fertilizer in accordance with SNI requirements. Apart from that, the Industrial Regulation of the Republic of Indonesia Number 17/M-IND/PER/3/2016 explains that the logo, SNI number, LSPro code and Product Registration Number (NRP) for all types of subsidized fertilizer are enforced compulsorily. The SNI logo for subsidized fertilizer is at the bottom right of the fertilizer packaging, while the SNI code is below the SNI logo. Under the SNI number there is the LSPro code and under the LSPro code there is the Product Registration Number (NRP). The SNI logo, SNI number, LSPro code and Product Registration Number (NRP) are printed in black. On Urea, ZA, and SP-36 fertilizers the SNI logo, SNI number, LSPro code, and Product Registration Number (NRP) are located at the bottom left of the packaging while on NPK fertilizer, the SNI logo, SNI number, LSPro code, and Registration Number The product (NRP) is located at the bottom center of the packaging. Apart from having a production code, Indonesian fertilizer products are also routinely tested by accredited laboratories to ensure optimal fertilizer quality. Therefore, no expired subsidized fertilizer has ever been found. This research is in line with research by Dina L. P, et al., (2022) who claims that the distribution of subsidized fertilizer with the right quality is effective where farmers know the right ratio of each fertilizer content for each plant and never find subsidized fertilizer that expired.

The final indicator of the effectiveness of subsidized fertilizer distribution is the right type. The right type means that the type of subsidized fertilizer that farmers get is in accordance with their needs or not. The percentage of accuracy in distribution of subsidized fertilizer can be seen in Table 10.

Table 10. Percentage of Accuracy of Subsidized Fertilizer Types with the Berjaya Farmer Card Pattern and Without the Berjaya Farmer Card Pattern

Sub Indicator	Value/Score					Max Score	Effectiveness
	SS	S	R	T.S	STS		
	5	4	3	2	1		
The type of subsidized fertilizer is appropriate according to needs	25	32	6	14	7	420	72.86%

Source: Primary Data, Research Data Processing Results, 2022

Based on Table 10, it is known that the effectiveness of subsidized fertilizer types can be said to be quite effective, reaching 72.86%. It can be linked to the effectiveness of the exact amount that has received the dose according to government recommendations, namely it is quite effective,because if farmers have received fertilizer as recommended, then automatically farmers will also receive fertilizer according to their needs. This is not in line with the income of Rusydiana and Retnoningsih (2016) where if viewed from the perspective of type accuracy, the distribution of subsidized fertilizer in Pakis village, Ampeldento sub-district, Malang Regency is classified as ineffective with a percentage of 45.71%. This is because subsidized fertilizer, which consists of Urea fertilizer and NPK fertilizer, is the type of fertilizer that farmers in Abung Semuli District usually use in

running their farming businesses. To run their farming businesses, farmers in Abung Semuli District, apart from using the two types of subsidized fertilizer, also use manure, most of which they buy from breeders in the Abung Semuli District area. If they have their own livestock, farmers don't need to buy manure, instead they can sell the manure to farmers who need it.

DISCUSSION

The overall effectiveness of subsidized fertilizer distribution is the average percentage of six indicators of the effectiveness of subsidized fertilizer distribution. The overall effectiveness of subsidized fertilizer distribution can be seen in Table 11.

Table 11. Percentage of Effectiveness of Subsidized Fertilizer Distribution in Abung Semuli District

Indicator	Victorious Farmer Card
Right Price	63.16
Right Place	85
On time	69.4
Exact Amount	54.79
Right Quality	89.79
Exact Type	72.86
Average	**72.5**

Source: Primary Data, Research Data Processing Results, 2022

Table 11 shows that the average percentage of six indicators of the effectiveness of subsidized fertilizer distribution for both respondents who used the Berjaya Farmer Card was 72.5%, which was stated to be quite effective because farmers used the Berjaya Farmer Card only once, most farmers experienced difficulties in paying via bank or account where Most farmers are aged 40-50 and above and distributors still lack subsidized fertilizer, so there are still farmers who have not received subsidized fertilizer. respondents who did not use the Berjaya Farmer Card were in the range of 71.5%, so the distribution of subsidized fertilizer using the Berjaya Farmer Card pattern was declared quite effective because farmers were free to buy subsidized and non-subsidized fertilizer according to their needs. This is not in line with the opinion of Rusydiana and Retnoningsih (2016) where the effectiveness of distribution of subsidized fertilizer based on six precise indicators in Pakis village, Ampeldento subdistrict, Malang Regency is classified as very ineffective with a percentage of 26.21%. According to Mulyadiana, Marwanti and Rahayu (2018), the effectiveness of fertilizer subsidy policies is closely related to the use of fertilizer by farmers. Based on indicators of the right price and right quantity, if farmers get fertilizer according to the HET then farmers can use fertilizer according to the recommended dose without having to replace or reduce the amount of fertilizer used for each field. Meanwhile, looking at the right place and right time indicators, if fertilizer is always available when needed and can be obtained at official kiosks, it will make it easier for farmers to get fertilizer.

The difference between using the Berjaya Farmer Card and without the Berjaya Farmer Card in distributing subsidized fertilizer to farmers is the difference in the average indicators of effectiveness, namely price, quantity, time, place, quality and type. When compared to previous research which has not been effective, the researcher quotes

research by Mutiara Latifa Ashari and Dyah Hariani in a journal entitled "Analysis of the Effectiveness of the Farmer Card Program in Banjarnegara District, Banjarnegara Regency" which concludes that the ineffectiveness is one of the characteristics and abilities of the implementing agent. This is caused by farmers who choose not to use the Berjaya Farmer Card for reasons of being reluctant or reluctant to save at the bank so that the Berjaya Farmer Card they have does not work, then there are many members of the farmer group who are old. Most of the members of farmer groups are people of unproductive age, namely over 50 years of age, so it is difficult to change and follow programs that use technology, especially the use of transaction tools that utilize technology.

In this research, an interview was conducted with the retail kiosk owner, Mr. Anto, who explained that to increase the effectiveness of subsidized fertilizer distribution with the Berjaya Farmer Card. A strategy is implemented, namely farmers leave their farming cards at retail kiosks. When farmers buy subsidized fertilizer, what the farmer gives to the seller is in the form of cash according to the HET, then the kiosk owner saves the farmer's money to be used as a balance on the farmer's card according to the name of the card owned by the buyer. Next, the kiosk owner swipes the farmer's card which has been filled with balance so that it is transferred to the retailer who then reports each transaction to the government. According to the kiosk owner, the implementation of this strategy has not yet been used 100% of the Berjaya Farmer Card, even though this has made it easier for farmers who have the characteristics of low education and old age to be able to buy subsidized fertilizer in accordance with Government regulations and recommendations.

Apart from that, there are differences in the facilities received by farmers who have used the Berjaya Farmer Card, namely the benefits regarding agricultural information contained in the e-KPB feature, in addition to the existence of social assistance such as agricultural insurance, scholarships for farmers' children who will continue their studies at universities and there is access to applying for People's Business Credit.

The Berjaya Farmer Card Program is a program from the Lampung Provincial Government which aims to connect all stakeholders' interests in the agricultural sector with the aim of increasing farmers' income and welfare through structured, systematic and integrated problem solving efforts through the use of information technology.

Table 12. Benefit Aspects of the KPB Program

Sub Indicator	Answer					%
	SS	S	R	T.S	STS	
	5	4	3	2	1	
The meeting discussed plans to redeem fertilizer and other KPB services	195	156	12	10	2	89.28
KPB helps to get capital for farming businesses	105	140	57	10	1	74.52
Other business insurance is required after farmers are registered and use KPB	205	116	39	2	0	86.19
Farmers get scholarships for farm children	35	88	39	56	14	55.23

Farmers receive other social assistance	85	176	48	12	1	76.67
Farmers get certainty about marketing their crops at the best prices with the KPB	20	92	51	10	24	46.90
KPB can help increase farmer income	5	76	60	52	17	50
KPB influences increased agricultural production	10	72	63	58	14	51.67
Amount	**660**	**916**	**369**	**210**	**73**	

Source: Primary Data, Research Data Processing Results, 2022

Based on Table 4.9 Benefit Aspects of the KPB Program, it can be seen that the sub-indicator that KPB can help increase farmers' income is the lowest score. This is because farmers have not yet realized the KPB program. The low score results are due to the lack of comprehensive outreach to farmers so that farmers do not know what benefits and services are available in the Berjaya Farmer Card program.

Table 13 Benefits and Distribution of Subsidized Fertilizer using KPB

Sub Indicator	Answer					%
	SS	S	R	T.S	STS	
	5	4	3	2	1	
Getting capital for farming is difficult.	25	144	27	68	11	65.4
Other business insurance is required before farmers are registered and use KPB	195	136	30	6	0	87.38
Farmers get scholarships for farm children	35	92	27	60	15	54.52
Farmers receive other social assistance	110	164	99	18	0	93.09
Farmers get certainty about marketing their crops at the best prices before the KPB exists	50	20	51	48	36	48.80
Farmers get business financial information and reports	55	120	45	42	6	63.80
Farmers receive the latest information about business technology recommendations	95	168	39	20	0	76.67
Before using KPB my income was more prosperous.	15	160	96	14	2	68.33
Before using KPB agricultural production was low	1	32	87	88	2	50
There are differences in agricultural yields after using KPB.	1	40	87	84	2	50.95
The distribution pattern for subsidized fertilizer before using KPB was easier	185	88	45	12	4	79.52
The distribution pattern of subsidized fertilizer before using KPB was more difficult.	85	120	51	32	4	69.52

There are factors inhibiting the distribution of subsidized fertilizer in North Lampung Regency	90	112	27	54	2	67.85
Amount	**942**	**1396**	**711**	**546**	**84**	

Source: Primary Data, Research Data Processing Results, 2022

Based on this table, it can be seen that after the Berjaya Farmer Card program was running in Abung Semuli District, farmers felt that redeeming subsidized fertilizer was easier and less complicated than before using the Berjaya Farmer Card, which can be seen the percentage reaching 79.52%. Based on the services available in e-KPB such as insurance guarantees, scholarships for farmers' children, social assistance, information about farming, agricultural capital assistance, and an increase in farmers' income after using KPB. Farmers agree that it is necessary to have these things as collateral for the farming business they are carrying out. So that if there is a crop failure due to natural disasters or national pest attacks, there will be a change in funds for farming businesses such as the Rice Farming Business Insurance (AUTP) which is already running.

CONCLUSION

Based on the results of the research and analysis that have been carried out, the following conclusions can be drawn. There is a difference in the effectiveness of the distribution of subsidized fertilizer using a Tani Berjaya card and the effectiveness of the distribution of subsidized fertilizer without a Tani Berjaya card. The distribution of subsidized fertilizer using the farmer card pattern based on the six right principles is quite effective. In detail, the effectiveness of distribution of subsidized fertilizer using the farmer card pattern in terms of right price, right place, right time, right quality, and right type is classified as ineffective. The distribution of subsidized fertilizer using the Berjaya Farmer Card pattern, in terms of the exact amount, is classified as ineffective.

The government is expected to increase the distribution of subsidized fertilizer so that it is used evenly by farmers. Extension officers (PPL) should provide outreach in each village so that farmers can understand the procedures for making successful farmer cards. Apart from that, extension workers also need to provide information about the proper and correct way to fertilize with doses that suit the needs of the plants. It is best to coordinate between each distributor from line I to line IV so that existing subsidized fertilizer stocks can be guaranteed in each line. Overall, the effectiveness of the distribution of subsidized fertilizer using the Tani Berjaya card is classified as ineffective.

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