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## Rice farmer perception of farm cards utilization in Pekalongan Regency, Central Java, Indonesia

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**Abstract.** The purpose of this research was to describe rice farmers perception of farm cards utilization. The research was done at Kesesi Village, Kesesi subdistrict, Pekalongan Regency. Kesesi village was chosen because a greater number of farmers have farm card than other villages. As much as 80 rice farmers who have farm card were selected as respondent by random sampling. Data collection was conducted by interview with questionnaire list. The data was analyzed descriptively. Result of the research showed that the whole response of farmers was categorized of pretty good.

### 1. Introduction

The development of the agricultural sector needs to be carried out in line with the flow of economic globalization which has brought major changes to consumer interest in agricultural products. One application to support agricultural development is fertilizing [1]. Fertilizers have an important role in increasing crop production [2], although there is still use of fertilizers that are not in accordance with the principles and balanced fertilizer recommendations [3]. However, income of farmers who use balanced fertilizer without subsidizing organic fertilizers continues to increase compared to farmers using full chemical fertilizers [4].

One policy that needs to be applied in the implementation of fertilizers is fertilizer subsidies [5]. The government provides a program of supplying fertilizer to farmers through subsidized fertilizer prices. The highest retail price of subsidized fertilizer is listed in Minister of Agriculture Regulation Number 69/Permentan/SR.310/12/2016 regarding the allocation and Highest Retail Price (HET) of subsidized fertilizer for agriculture sectors for the 2017 fiscal year [6]. In its implementation, there are problems that have not been fully targeted, there are scarcity and price increases at the farm level. The results of Sularno et al. [5] study also state that the distribution of subsidized fertilizers has not been effective because there is still a scarcity of fertilizer [5]. In order for the program to provide subsidized fertilizer prices for farmers to run well, the government created a farming card program. The farm card program aims to achieve development in the agricultural sector through the use of fertilizers appropriately and on target [7].

Farming cards are BRI debit cards that are used specifically to determine the allocation of subsidized fertilizers and subsidized fertilizer payment transactions on Electronic Data Capture (EDC) machines. Farming cards function to: (1) access quota data on subsidized fertilizer ownership obtained by farmers, (2) subsidized fertilizer distribution becomes right on target and transfer services, cash withdrawal transactions in Complete Fertilizer Kiosk (KPL) in collaboration with BRI and free administration; (3)



ease in the sale of harvests by off takers (without going through intermediaries) and various information regarding agriculture; (4) make it easier to get a People's Business Credit (KUR) loan, and (5) foster the habit of saving at the Bank (Central Java Province Infrastructure and SDA Bureau).

Pekalongan District has distributed farm cards to farmers since September 2017. However, the implementation of the farming card program in Pekalongan has not been going well. There are still many farmers who are not aware of registering. The majority of farmers in the Kesesi Village of Pekalongan have not utilized the farm card because they do not understand the use of the farm card. Farmer card users in Pekalongan are relatively few with 5 people. Some farmers admit that they have owned a farm card but since receiving the farm card they have never used the farm card either in purchasing fertilizer or utilizing it for other things. From these problems, it is necessary to conduct research aimed at describing the profile of rice farmers who own farm cards and their perceptions of the use of farm cards, and their problems. The results of this study can be used as recommendations for the government to improve the farming card program.

## **2. Methods**

The basic method used in this research is descriptive method. Descriptive methods have several advantages, including data analysis performed with a descriptive analytical approach to produce relationships or comparisons between variables [8], and the results of the study can be deductive conclusions [9]. The research was conducted in the Kesesi Village, Kesesi subdistrict, Pekalongan Regency, which was determined deliberately with the consideration that the area had farmers who owned the farm cards and the largest number of subsidized fertilizer allocations in the District of Kesesi with a total of 389 farmers. The amount of 80 respondents was taken with the Slovin formula.

## **3. Results and discussions**

### *3.1. Perception of rice farmers for using farm cards*

*3.1.1. Ease aspect of getting subsidized fertilizer.* In general, the perception of rice farmers on the ease of obtaining subsidized fertilizer is in the category of good enough. Rice farmers who own farm cards have benefited from the farming cards, but sometimes in the use of farm cards there are still many problems that arise, one of which is the scarcity of subsidized fertilizer still occurring. This is because in each village has one complete fertilizer shop with a specified purchase quota. When the fertilizer quota owned by the complete fertilizer shop runs out, farmers cannot buy subsidized fertilizer elsewhere. Therefore, the government must improve the availability of subsidized fertilizer, so that subsidized fertilizer can be on time, the right amount and right place. This is also supported by the Darwis [10] that the system of subsidizing and distributing fertilizers has not been effective.

In the habit indicator, it is difficult for farmers to get used to using farm cards in the purchase of subsidized fertilizers and restrictions on the amount of fertilizer purchase. This is because the habits that have been carried out by farmers have been going on for a long time, so that when the habit is changed, the farmer is confused in living it. Therefore, there is a need for further coaching with a more intensive approach so that farmers can change their habits. This is in line with the research of Rangkuti [11] that the lack of program information to the community as a whole is comprehensive.

**Table 1.** Utilization of farmer card for ease getting subsidized fertilizer

Indicator	Statement	Average Score	Category
Benefit	The ease of finding fertilizer in the Kesesi village	2.86	Easy enough
	The ease of finding fertilizer prices	2.61	Easy enough
	The ease of getting availability of fertilizer subsidized	2.54	Difficult
	The ease of getting low input costs	2.68	Easy enough
Location	The ease reach of complete fertilizer shop	2.41	Difficult
Access	The ease reach of BRI banks	2.73	Easy enough
Support	The ease of getting assistance in use farm cards	3.05	Easy enough
	The ease of getting support for family to use farm card in the purchase of fertilizer subsidized	2.60	Easy enough
	The ease of getting support from farmers to use farm cards in the purchase of fertilizer subsidized	2.50	Difficult
	The ease of getting support from other people to use farm card in the purchase of fertilizer subsidized	2.65	Easy enough
Habit	The ease of getting used to buying fertilizer in cash	2.40	Difficult
	The ease of getting used to buying fertilizer with the limit on the number of purchases	2.30	Difficult
Total		34.11	Good

*3.1.2. Ease aspects of harvested product sales by off taker.* In general, farmers who have farm cards feel the benefits of farming cards, but sometimes there are still problems in the utilization of location problems. The distance from the sale of the harvest by the off taker (Bulog) is very far from the village of Kesesi. In addition, location access to reach Bulog is difficult. This is because most roads in Pekalongan Regency are damaged due to the construction of the Pemalang – Batang toll road. Therefore, the government needs to improve infrastructure facilities in the form of road improvements to make it easier for farmers to utilize the farm cards in the sale of harvest products by off takers.

In the habit indicator, farmers have difficulties to get used to marketing crops to Bulog. The habits of farmers who sell crops to collectors are quite easy rather than selling to Bulog. This is because marketing the harvest to Bulog farmers must provide trucks or cars to transport it. Using the services of farmer collectors, it does not need to bother taking care of it. Therefore, there is a need for further coaching with a more intensive approach so that farmers can change their habits.

**Table 2.** Perception farmer for getting ease of selling the harvest by off taker

Indicator	Statement	Average Score	Category
Benefit	Ease of marketing harvest without intermediaries	3.15	Easy enough
	Ease of absorption harvest by the market	2.96	Easy enough
	Ease of getting a stable purchase price	2.86	Easy enough
	Ease of obtaining a purchase that matches the market price	2.83	Easy enough
Location	Ease of reaching the place of selling harvest (Bulog)	1.76	Difficult enough
Access	Ease of reaching ATM/BRI bank	2.79	Easy enough
Support	Ease of getting assistance in marketing harvest	2.74	Easy enough
	Ease of getting support from relatives/family to use the farm card of marketing the harvest	2.64	Easy enough
	Ease of getting support from farmer groups to use farm cards in marketing the harvest	2.64	Easy enough
	Ease of getting the support of others to use the farm cards in marketing the harvest	3.75	Easy
Habit	Ease of getting used to marketing the harvest to Bulog	2.45	Difficult
	Ease of selling the harvests other than collectors	2.27	Difficult
Total		35.17	Good Enough

*3.1.3. Ease aspect of access to financing KUR.* In general, rice farmers who have farm cards feel the benefits of farm cards, but sometimes there are still problems that arise in the utilization of the location, which is difficult to reach BRI. This is because most roads are damaged due to the construction of the Pemalang – Batang toll road. Therefore, the government needs to improve infrastructure facilities in the form of road improvements to make it easier for farmers to utilize the farm card in the sale of harvested products by off takers. In the habit indicator, farmers have difficulties to get used of saving and applying for financing at the Bank. Therefore, there is a need for further socialization regarding the importance of financial literacy so that farmers are not consumptive and accustomed to saving.

**Table 3.** Perception farmers to ease aspect of access to KUR

Indicator	Statement	Average Score	Category
Benefit	Ease of getting access to KUR financing	3.24	Easy enough
	Ease of growing saving habits	2.80	Easy enough
	Ease of getting savings costs is lighter	3.13	Easy enough
Location	Ease of reaching BRI bank	2.93	Easy enough
Access	Ease of location access	2.36	Difficult
Support	Ease of getting assistance in getting access to KUR financing	3.09	Easy enough
	Ease of getting support from relatives/family to use the farm card in accessing KUR financing	2.95	Easy enough
	Ease of getting support from farmers group to use farm cards in access to KUR financing	2.75	Easy enough
	Ease of getting the support of other people to use the farm cards in access to KUR financing	2.89	Easy enough
Habit	Ease of getting use to saving at the bank	2.45	Difficult
	Ease of getting used to applying for financing at the bank	2.30	Difficult
Total		32.91	Good enough

*3.1.4. Easy aspect of obtaining the NAOP (National Agrarian Operation Project) Program.* In general, farmers who have farm cards feel the benefits of the farm card to get the NAOP program but sometimes there are still problems that arise in the utilization of the location problem. The distance of the farmer's house to the remote BPN and location access to reach the BPN is difficult. This is because most roads are damaged due to the construction of the Pemalang - Batang toll road. Therefore, the government needs to improve infrastructure facilities in the form of road improvements to make it easier for farmers to utilize the farm cards in getting the NAOP program.

*3.1.5. Easy aspect of getting subsidies from the Ministry of Finance, Ministry of Agriculture and Ministry of Cooperatives.* In general, farmers who have farm cards feel the benefits of farming cards to get subsidies from the Ministry of Finance, Ministry of Agriculture and Ministry of Cooperatives, but sometimes there are still problems that arise in the utilization of location problems reaching BRI. This is because most roads are damaged due to the construction of the Pemalang - Batang toll road. Therefore, the government needs to improve infrastructure facilities in the form of road improvements to make it easier for farmers to utilize farm cards in obtaining subsidies from the Ministry of Finance, Ministry of Agriculture and Ministry of Cooperatives.

**Table 4.** Perception farmers of getting NAOP Program

Indicator	Statement	Average Score	Category
Benefit	Ease of getting a land certificate	2.81	Easy enough
	Ease of obtaining fees for making cheap land certificates	2.58	Difficult
	Ease of getting free of illegal charges	2.55	Difficult
	Ease of obtaining certainty of land ownership	3.11	Easy enough
Location	Ease of reaching BPN	1.65	Very difficult
Access	Ease of location access	2.31	Difficult
Support	Ease of getting assistance in getting the NAOP program	2.90	Ease enough
	Ease of getting support from relatives/family to use the farm card in getting NAOP program	2.80	Ease enough
	Ease of getting support from farmers group to use farm cards in getting NAOP program	2.78	Ease enough
	Ease of getting the support of other people to use the farm cards in getting NAOP program	2.79	Ease enough
Total		26.27	Good enough

In the habit indicator, farmers have difficulty getting used to using cards in ATM transactions and submitting financing access. The majority of farmers have never used cards for banking transactions. In addition, farmers are not used to applying for financing at the Bank. Farmers prefer to borrow the closest sibling compared to borrowing from the Bank. These habits have lasted so long that when the habit is changed, the farmer is confused in living it. Therefore, there is a need for guidance in the use of cards for banking transactions so that farmers can change their habits.

**Table 5.** Perception farmers of ease in getting subsidies from the from the Ministry of Finance, Ministry of Agriculture and Ministry of Cooperatives

Indicator	Statement	Average Score	Category
Benefit	Ease of getting financing to run a business	3.01	Easy enough
	Ease of getting 13% subsidy for KUR interest for SMEs	2.88	Easy enough
Location	Ease of reaching BRI Bank	2.98	Easy enough
Access	Ease of access to BRI Bank	2.19	Difficult
Support	Ease of getting assistance and socialization in obtaining subsidies	3.16	Easy enough
	The ease of getting support from relatives/family to use the farm card in getting subsidies	2.86	Easy enough
	Ease of getting support from farmer groups to use farm card to get subsidies	2.79	Easy enough
	Ease of getting the support of others to use the farm card in getting subsidies from the Ministry of Finance	2.8	Easy enough
Habit	Ease of getting used to using cards for transactions at ATMs	2.25	Difficult
	Ease of getting used to KUR financing proposals	2.30	Difficult
Total		29.67	Good enough

*3.1.6. Easy aspects of getting social assistance (Bansos).* Farmers' perception of the use of farm cards in the ease of obtaining social assistance shows the benefits of farming cards to get food social assistance from the government. These perceptions are in the form of benefits, location access, support and habits. In general, rice farmers who have farm cards in Kesesi village feel the benefits of farming cards to get social assistance, but sometimes in their use there are still problems that arise, namely the problem of access to difficult locations. This is because most roads are damaged due to the construction of the Pemalang-Batang toll road. Therefore, the government needs to improve infrastructure facilities in the

form of road improvements to make it easier for farmers to utilize the farm cards in obtaining social assistance.

**Table 6.** Perception farmers of ease in getting social assistance

Indicator	Statement	Average Score	Category
Benefit	Ease of getting non-cash food assistance	3.15	Easy enough
	Ease of getting help of prosperous rice	3.28	Easy enough
	Ease of getting prosperous rice for free without being asked for ransom	3.19	Easy enough
Location	Ease of reaching sub-district offices	3.83	Easy
Access	Ease of reaching BRI Bank	3.06	Easy enough
	Easy access to location	2.41	Difficult
Support	Ease of getting assistance in getting social assistance	3.13	Easy enough
	Ease of getting the support of relatives/family to use the farm card in getting the social assistance program	2.99	Easy enough
	The ease of getting support from farmer groups to use the farm card in getting social assistance	3.03	Easy enough
	The ease of getting support from the other people to use the farm cards in getting social assistance	2.81	Easy enough
Habit	The ease of using the card to get social assistance	2.90	Easy enough
	The ease of getting used to ATM machine transactions	3.11	Easy enough
Total		38.2	Good enough

Assessment of farmers on the use of farm cards in general which consists of the ease of getting subsidized fertilizer, ease of sale of harvested products by off takers, ease of access to financing, ease of obtaining NAOP programs, ease of obtaining subsidies from the Ministry of Finance, Ministry of Agriculture and Ministry of Cooperatives, and ease of obtaining social assistance seen in Table 6.

**Table 7.** Perception of rice farmers in general use of farm cards

Indicator	Average score	Category
Easy of getting subsidized fertilizer	34.11	Good enough
Easy of sale of yields by off takers	35.17	Good enough
Easy access to KUR financing	32.91	Good enough
Ease of getting the NAOP program	26.28	Good enough
Ease of getting subsidies from the Ministry of Finance, Ministry of Agriculture and Ministry of Cooperatives	29.68	Good enough
Ease of getting social assistance	38.20	Good enough
Total	196.35	Good enough

Based on Table 7, it can be seen that the most of farmers' perception towards the use of farm cards is categorized as good enough with a total score of 196.35. Perceptions are good enough means that rice farmers in the village get enough of the benefits of the farm card, but there are still problems that arise in the implementation of the location and habit access indicators.

#### 4. Conclusion

Perceptions of rice farmers in the village obstacles to the use of farm cards are included in the category of good enough. In order to increase the utilization of farm cards, intensive support of government is needed in the form of socialization, counseling, and further assistance so that farmers can understand the use of farm cards. In addition, it is necessary to have coordination within the farmer group regarding filling the balance together with the members who have been appointed as responsible.

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