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# The Effectiveness of Loan Provision and Education by Sawiran Cooperative to Farmers Regarding Crop Yields to Achieve More Profitable Harvests

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**Abstract:** The success of cooperatives in supporting farmers through capital loan programs and agricultural education depends on their ability to overcome key challenges, such as the dependence of farmers' income on the harvest season and the risk of crop failure due to extreme weather. To overcome this, the Sawiran cooperative developed an educational program that includes mulching drip irrigation techniques, allowing farmers to plant outof-season and make optimal use of land. In addition, crop diversification is encouraged to increase farmers' income and reduce the risks resulting from dependence on one type of crop. Capital loans from cooperatives provide flexibility for farmers to manage farming finances, such as buying seeds, fertilizer or agricultural equipment. With initial capital, farmers can increase productivity and quality of harvest using modern technology introduced by cooperatives. In addition, the close relationship between cooperatives and farmers supports the financial stability of cooperatives and opens up opportunities for farmers to become permanent members. The benefits of this program include earlier harvests at higher selling prices, reduced risk of losses due to certain planting seasons, and diversification of farming businesses which increases farmers' economic resilience. However, the government's role is needed to complement cooperative efforts in providing comprehensive access to education and technology. It is hoped that good collaboration can create sustainable solutions to improve the welfare of farmers in the Ngadisari region.

Keywords: Cooperative; Education; Loan; Farmer.

### Introduction

One of the key sectors that serves as a solid pillar of the national economy is agriculture. According to the basic constitution (Article 33 of the 1945 Constitution) which states, "The earth and water and the natural resources contained therein are controlled by the state and used for the greatest prosperity of the people," economic development based on economic democracy is interpreted as economic development by the people, for the people, and from the people. The meaning of that sentence describes the cycle of food security held by farmers (from the people) whose harvests are distributed to all Indonesian society (by the people) who work in all sectors outside of agriculture, making the agricultural sector the root source of production and services in Indonesia (for the people). In line with the growth of the population and the food industry, the demand for food crop commodities has significantly increased each year, making the quality and quantity of farmers a benchmark for food needs in Indonesia. Agricultural economy has become the backbone of the economy and supports the sustainability of the food sector. However, amidst the dynamics of globalization and climate change, the challenges in managing agriculture are becoming increasingly complex (Lokot Muda Harahap et al., 2024).

However, nowadays, the successors of the agricultural generation and experts in the field of agriculture are increasingly losing interest and enthusiasm for agricultural science, which affects the decline in the quality of farmers and the number of farmers continuing their work. One of the factors causing the lack of interest in the agricultural field is the decline in living standards and profits, as well as the increasing costs of farmers' needs such as fertilizers,

seeds, and other planting maintenance requirements, while the selling prices continue to decrease. One of the key sectors that serves as the solid pillar of the national economy is agriculture. According to the basic constitution (Article 33 of the 1945 Constitution) which states, "The earth and water and the natural resources contained therein are controlled by the state and used for the greatest prosperity of the people," economic development based on economic democracy is interpreted as economic development by the people, for the people, and from the people. The meaning of that sentence describes the cycle of food security held by farmers (from the people) whose harvests are distributed to all Indonesian society (by the people) who work in all sectors outside of agriculture, making the agricultural sector the root source of production and services in Indonesia (for the people). In line with the growth of the population and the food industry, the demand for food crop commodities has significantly increased each year, making the quality and quantity of farmers a benchmark for food needs in Indonesia. Agricultural economy has become the backbone of the economy and supports the sustainability of the food sector. However, amidst the dynamics of globalization and climate change, the challenges in managing agriculture are becoming increasingly complex (Koib & Simamora, 2022). The agricultural capital from vegetable traders is usually provided in the form of loans. In this system, traders provide a certain amount of money to farmers, which is then used to purchase various production inputs and pay for labor costs. Loan repayment is carried out by farmers by selling their agricultural produce to the traders who provided the loan. The selling price received by the farmers is not significantly different compared to if they sold their produce to other traders. For traders, the advantage of providing loans is the guarantee of a supply of goods, as farmers will ensure that their harvest is sold to those traders. However, traders will not dare to offer prices that are much lower than other traders, because this could make farmers reluctant to borrow from them in the next planting season (Watemin & Sulistyani Budiningsih, 2015).

The planting and harvesting seasons also affect the prices of crop commodities, where during the peak harvest season, the selling prices of the harvests plummet drastically, often harming the farmers. However, after a few months post-harvest, these crop commodities become scarce, driving up the selling prices. This opportunity becomes a chance to sell the harvests, but farmers often lack the educational knowledge of planting techniques that can be done outside the planting season. If farmers are able to plant earlier, then the harvest can also be earlier compared to

before without waiting for the planting and harvesting seasons.

One alternative loan for farmers to finance their planting capital is the credit union cooperative, which is a financial institution that provides loan services to its members at more affordable interest rates compared to other financial institutions or borrowing from middlemen who buy their harvests (Thahir Hikmawi et al., 2023). Several factors driving farmers to choose cooperative services, such as needs, the ability to develop, affordability, opportunities for advancement, market guarantees, and institutional policies, become factors influencing the level of motivation for farmers to use cooperative services (Mutiara Putri Gita Cahyani et al., 2022).

One type of cooperative that accommodates its members and provides education is Credit Union Sawiran, one of whose service locations is in the Ngadisari area of the Bromo mountain region, where the local residents are predominantly vegetable farmers often found in the highland hills, growing crops such as potatoes, carrots, cabbage, and various types of onions. From the analysis of the previously discussed issue, which is the decreasing profits of Credit Union Sawiran farmers, efforts have been made to provide capital loans and education to farmers. It was explained that there are several crops that can be planted outside their usual planting seasons without waiting for a specific season. Therefore, if farmers plant their vegetables earlier with the right techniques, they can harvest earlier when other farmers are still 1-2 months away from their harvest period. When the harvest time is close, the stock of certain vegetable commodities in the market is limited, so farmers who harvest earlier with the help of the capital loan can sell at higher prices.

## Method

This research was conducted from November to December 2024, using secondary data from previous research and journals, combined with research results on loan provision methods and explicit and personal education among partners and fellow farmers. This was demonstrated by one of the partners of the Credit Union Sawiran cooperative branch in Ngadisari, who proved it by planting vegetables, specifically potatoes, earlier than other farmers using the drip mulching technique in one of the rice fields in the Ngadisari area of the Bromo region. However, the cooperative partners will not only focus on potato cultivation but will also educate on various other vegetable crops.

#### **Result and Discussion**

The Sawiran credit union cooperative is a savings and loan cooperative, and one of their loan products is a loan to farmers. The implementation of providing loans to farmers is a development from the previous seasonal loans for farmers, which were loans given by farmers during certain seasons for agricultural business needs, ranging from purchasing seeds, land preparation, to labor costs.



**Figure 1.** Credit Union Sawiran Cooperative branch Ngadisari

The weaknesses of the previous farmer loan product The weakness of the previous loan is that farmers' income is highly dependent on the success of the harvest and planting seasons, which are influenced by the climate and weather. If there is a crop failure due to extreme weather, pests, plant diseases, or other disasters, farmers will have difficulty repaying the loan installments on time. This can increase the risk of nonperforming loans for cooperatives (Juita, 2024). Diversification of crops affects farmers who are too focused on a specific type of crop, often leading them to not plant during certain months because they are waiting for the right season. As a result, farmers frequently leave their agricultural land idle, which has the potential to be planted with other types of crops. Consequently, the number of cooperative members derived from these farmers also decreases because they are waiting for the planting season to borrow.

2. The benefits of farmer members for the cooperative According (Dai & Novianti, 2019) the provision of credit in the form of business capital carried out by

cooperatives, as institutions that collect funds from the community and redistribute them in the form of financing programs, are expected to help the community meet their capital needs. However, it is important for cooperatives or other financial institutions to conduct careful calculations and assessments in the credit granting process. This activity also serves as a way for cooperatives to manage capital derived from donations and member savings to provide loans while earning profits through the interest paid by borrowing members. The success of the cooperative in distributing credit is greatly influenced by the management's ability to handle the credit disbursement process to its members. Good management and strong group cohesion among members serve as a link and attraction between farmers and partners (Nababan, 2022).

Farmers are one of the targets to be recruited as cooperative members, which benefits the cooperative in maintaining its financial stability and health. Continuous land cultivation with each harvest from loan capital can serve as a benchmark for the success of cooperative partner education and as a criterion for members who have the potential to become permanent members.

3. The benefits to farmers from cooperative capital loans

Farmers who borrow capital from cooperatives without having to wait for the planting season can obtain various benefits. One of the main advantages is the flexibility in financial management for agricultural needs, such as purchasing seeds, fertilizers, farming tools, or land infrastructure repairs. With early access to capital, farmers can prepare all their needs long before the planting season begins, thereby reducing the risk of delays that could affect the harvest. In addition, the Sawiran cooperative offers lower interest rates and simpler requirements, making it more accessible to small farmers. This also helps farmers improve the productivity and quality of their harvests, as they have sufficient capital to implement better farming techniques or use more modern technology with education from cooperative partners. The type of loan to farmers, which will be accompanied by educational efforts from cooperative partners by showing harvest results and various techniques used in the agricultural process, can open opportunities for farmer clients to be interested in joining as members.

4. Education of cooperative partners to farmers

In the mentoring and education activities of the Sawiran cooperative partners, before carrying out their education, one of the partners, who also has a background as a farmer and has pursued higher education, applied his knowledge to plant one of the

vegetable commodities, potatoes, to serve as an example for other farmers using the drip technique and covered with mulch. The drip irrigation technique is an effective solution to address the issues of drought and sloping and steep terrain, as seen in the Ngadisari hill area, especially in supporting the growth of fruit and vegetable plants during the long dry season. Prolonged drought often causes water availability in the fields to become very limited, making efficient irrigation methods like drip irrigation the right choice. This system works by slowly delivering water directly to the plant root area, thereby ensuring that the plants' water needs are met even in dry environmental conditions (Steven Witman, 2021).



**Figure 2.** The garden of a farmer partner of the Sawiran cooperative

The main advantage of drip irrigation is its ability to significantly reduce water evaporation, which usually increases during the dry season. In addition, this technique is very ideal for application on clay-textured soil. This type of soil has a high water retention capacity and the ability to slowly distribute water to plant roots. This allows for better water use efficiency while also supporting more optimal plant growth. With this technique, farmers can maintain their agricultural productivity even in water-scarce conditions, while also conserving water resources for long-term use.



**Figure 3.** Equipment and test results of the Sawiran cooperative partner in the form of potato plants

In the explanation provided by (Abdi Hidayat, 2023) one form of partner education efforts besides educating on the application of drip mulch planting techniques is educating on agricultural diversification practices to develop various types of businesses in the agricultural sector to reduce risk, increase farmers' income, and strengthen local food security. By allocating resources to produce various crops and livestock, farmers can reduce vulnerability to fluctuations in single commodity prices. In addition, diversification allows farmers to optimally utilize land potential and earn income from various sources, such as food crops, fruits, and livestock. Crop diversification encourages farmers to try new crops instead of waiting for the right season to plant the usual crops they are accustomed to land utilization is better achieved through diversification. With the utilization of idle land through crop diversification, the role of cooperatives in providing access to capital loans becomes one of the solutions for farmers. However, the limited access to knowledge and education for farmers cannot rely solely on the Sawiran cooperative partners; the role of the government also becomes an important point for the welfare of farmers in Ngadisari village.

The advantage of using the drip mulching technique also helps farmers to plant their crops outside the planting season, for example, potato commodities which are normally planted during the rainy season. By using the drip mulching technique, farmers no longer need to wait for the rainy season, allowing them to plant potatoes earlier and harvest earlier as well. The benefit of an early harvest compared to harvesting during the harvest season is that farmers can sell their harvest at a high price because potato commodities become scarce in the market since they have not yet entered the harvest period, resulting in a drastic drop in selling prices. This method can also be applied to other types of crops as long as they are not season-specific. For such crops, the selling price is not significantly affected in the market because the supply tends to be stable.



**Figure 4.** The drip mulching technique that is still newly implemented in the CU Sawiran Ngadisari partner plantation.

#### 5. Loan giving method

Loan applications can be made by visiting the CU Sawiran cooperative directly or using the Sriya CU Sawiran mobile application by fulfilling the following requirements;

- 1) The members are of legal age.
- 2) The maximum age limit for the debtor is 60 years at the end of the loan term.
- 3) For all types of businesses. The business does not violate the law.
- 4) Mandatory auto-debit for installment payments.
- 5) Disbursement to the SiBuhar account (Daily Interest Savings) in the name of the borrower.
- 6) Members are required to update/revise their membership data.
- Members are required to complete the payment of Mandatory Savings until the Credit Application is submitted.
- To apply for a loan, there are requirements for debtors or members, including:
- 1) Fill out and sign the loan application form. Attach a photocopy of the ID card.
- 2) Attach a photocopy of the husband/wife/parent's ID card.
- 3) Attach a photocopy of the Family Card Attach a photocopy of the Marriage Certificate.
- 4) Attach a photocopy of the collateral documents (BPKB and STNK if R2/R3/R4 or SHM and PBB if land/house/building certificate)

Duration	Loan Service per Year (pa) Annuity
(Months)	
>6 s/d 12	15%
>12 s/d 24	18%
>24 s/d 36	20%
>36 s/d 48	21,6%

Suppose the loan is taken by farmers to plant potato commodities, for example, an average expenditure of Rp 25,000,000-30,000,000 per hectare is needed for potato production with a percentage of 15%, and an income of Rp 90,000,000-100,000,000 with a percentage of 85% from a total revenue of Rp 120,000,000-140,000,000 per hectare per harvest season. The potato harvest period is 80-120 days, so the annuity is 15% if all the harvest is sold to the collectors within less than 1 year.

#### Conclusion

The partner cooperative Credit Union Sawiran, as a financial institution based on familial ties and group cohesion, serves as a place for providing loans and educational partnerships for farmers, fulfilling its duties by applying ethics and becoming a helper for farmers who have limitations in knowledge and capital tools,

encouraging them to become productive and talented farmers, and enhancing the welfare of the farmers in Ngadisari village and its members. The problems faced by the cooperative partners and farmers include several aspects such as: (1) Lack of cooperative partners' workforce with experience as farmers; (2) The education level of the surrounding farmers is still relatively low, making it difficult for them to understand what the cooperative partners convey; (3) The application examples are only available in the form of potato crop commodities. Suggestions and input from the author for the partners of the Credit Union Sawiran cooperative to improve the cooperative's education and loan programs are as follows: partners can add workforce from among farmers with appropriate educational backgrounds to help run the program, collaborate with experts and relevant local government institutions to hold an event or workshop to attract more members.

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