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EFFECTIVENESS OF THE DAIRY FARMERS' PARTNERSHIP PROGRAM IN SAPI MERAPI SEJAHTERA COOPERATIVE (SAMESTA) YOGYAKARTA

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ABSTRACT

This research is undermined by the fact that the research site is a milk cooperative established as an attempt to revive the post-disaster economy in the region. In accordance with its initial purpose of helping to improve the economy of the partners, the study aims to describe the implementation of partnerships and analyze the effectiveness of partnership of dairy farmers in the Samesta Corporation of Yogyakarta. The research location is in Samesta Company, Sleman District, Yogyakarta and carried out in January to February 2024. The research method used is a survey method with a method of purposive sampling. The sample farmer involved is a farmer who is still active depositing milk and following the cooperative activities of as many as 100 farmers who are scattered in the Cangkringan and Pakem districts. While the method of analysis used is descriptive analysis related to the implementation of the partnership program and descriptive statistics to explain the effectiveness of the program. The findings show that the partnership program is conducted to empower the partner farmer as a member of the cooperative, supported by feed credit programmes, the development of compost and biogas, as well as bull loans. The form of partnership that runs is a core-plasma partnership. The constraints in the partnership program being run include productivity constraint, improved medical services for livestock, partner farmer confidence, and information transfer processes. Program effectiveness results measured on the basis of program understanding indicators, timeliness, target accuracy, target achievement, and real change indicate effectivency values of 64.30% and are categorized as effective so that the program can be continued.

Keywords: *effectivity, cooperative, dairy farmers, partnership*

BACKGROUND

One of the staple agricultural and livestock products is cow's milk produced from dairy cattle production. According to BPS, in 2022, Indonesia produced 129.98 million litres of cow's milk. This number decreased by 2.39% from the previous year. Meanwhile, the demand for cow's milk in Indonesia is 4.3 million tonnes based on data from the Directorate General of Animal Husbandry and Animal Health (2021). Efforts to meet this demand for cow's milk cannot fully rely on local production, so imports are necessary. In fact, the import value of cow's milk commodity is the highest compared to other livestock commodities, which amounted to 64.40% in 2021(Badan Pusat Statistik, 2022b)

The Indonesian livestock industry is often faced with the problem of unequal ability to meet the needs of production facilities at both the farmer and small industry levels, and dairy cattle farming is no exception. It is known that cattle farming requires large capital for cages, feed, and care, as well

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as good skills. These large costs are difficult to meet by smallholder farmers who generally have limited capital (Tawaf, 2018). Therefore, smallholder farmers need support to improve their production capabilities, both in the form of material support and assistance.

One of the responsive efforts to deal with this reality is partnership programmes. Partnership activities in developing countries generally aim to improve rural livelihoods and build the capacity of smallholder farmers (Bitzer et al., 2013). The partnership is expected to be an effort to reduce imports of cow's milk by increasing productivity and improving the competitiveness of domestic farmers. Theoretically, partnership programmes should be a means of benefiting both companies and farmers. Basically, the purpose of the partnership is "*Win-Win Solution Partnership*". That is, the partnership carries out the principle of mutual benefit for both sides to the partnership. However, the application of the partnership concept has not been able to fully fulfil the aspirations and expectations of both parties, especially for farmers whose business scale and capabilities are smaller than those of their industry partners.

Among the institutions that partner with dairy farmers are cooperatives. According to Badan Pusat Statistik (BPS) data (2022), 20% of business entities that operate dairy commodities are cooperatives. One of the cooperatives that also runs a partnership with dairy farmers is the Merapi Sejahtera Cow Cooperative or Samesta Cooperative. Samesta Cooperative is a dairy cooperative located in Cangkringan District, Sleman, Yogyakarta. Located in the central area of dairy farming, Samesta Cooperative runs a cultivation and fresh milk collection business with a livestock group partnership membership system. Cangkringan sub-district itself is known as a dairy centre, with the largest dairy cattle population and milk production in Yogyakarta Province(Badan Pusat Statistik, 2022a). The existing potential is developed through the business of collecting cow's milk from local farmers, then channelled to milk processing companies outside Yogyakarta. As a business entity established to help economic growth after the Merapi eruption disaster, Samesta Cooperative has now empowered 12 dairy cattle groups around Cangkringan and Pakem. Even though, out of 167 farmers, only about 120 are still actively supplying milk due to some factors.

The realisation of the partnership programme run by dairy farmers with Samesta Cooperative has not been measured for effectiveness. Partnership effectiveness is a measure of achieving organisational goals desired by partnering parties (Usman, 2021). So far, the programme that has become the focal point of the cooperative management is the Samesta Eduwisata programme, which is the development of educational tourism about dairy cows. This programme is about educate people how to maintain dairy cattle, and the tourism can learn practically. Thus, there has been no study focusing on the partnership between dairy farmers and Samesta Cooperative, so the picture of satisfaction and success of the programme has not been identified. In addition, as the newest dairy cooperative in Sleman Regency, the partnership that has only been in place for a few years still needs to be reviewed. Therefore, there is a need for further study of the effectiveness of the partnership programme so that the partners are able to meet the planned needs and expectations. Thus, the purpose of this study is to analyse the partnership programme and its effectiveness.

Fitriyani (2011) had published a similar study that analyzed descriptively and showed effective results. Effectiveness is assessed based on the satisfaction of the realization of the partnership programs carried out, so that the variables used in the study are the achievement of partnership program objectives in the form of training, coaching, promotion, and low-cost credit. Another research was conducted by Andriani (Andriani, 2018) entitled "Effectiveness of the Livestock Production Improvement Program in Pinggir District, Bengkalis Regency" used program

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effectiveness variables based on Sutrisno (2007), namely program understanding, target accuracy, timeliness, goal achievement, and positive change. The analysis was carried out descriptively qualitative. The results stated that the program was not effective because many farmers failed to breed cattle due to lack of skills, and inadequate animal health officers. The innovation of this research is area of study, was dairy cooperative and farmers. Generally, partnership research is more directed at programmes run by companies with smallholder farmers where there are real differences in business capacity. While the cooperative itself is a business unit that collects capital from its members, namely the farmers themselves so that the capacity of the cooperative, especially a newly established cooperative, can also be said to depend on the conditions of its members.

RESEARCH METHODS

Time and Location of Research

This research was conducted from 9 January 2024 to 8 February 2024. The research location was Sapi Merapi Sejahtera Cooperative (Samesta), located in Umbulharjo Village, Cangkringan District, Sleman Regency, Yogyakarta Special Region. The selection of the location was based on the capacity of Samesta Cooperative, which has established partnerships with dairy farmers around Cangkringan and became the cooperative with the second most partner farmers in this district. In addition, despite the fact that Samesta is the newest dairy cooperative in that district, the milk product from farmers are qualified as the best milk based on those quality.

Research Methods and Sampling

This research was conducted using the survey method, which is used to obtain natural data that is not artificial, but researchers conduct treatment in data collection, for example with questionnaires, tests, interviews, etc. (Sugiyono, 2016). The sampling technique was carried out in a purposive sampling by including farmers who were still actively depositing milk and participating in cooperative activities. Active farmers are those who regularly attend meetings, training sessions, and other activities held by the cooperative. The population in this study were all dairy farmers members of Semesta Cooperative, namely 12 livestock groups or 167 individuals. While the sample of active farmers totalled 100 people from 10 sample livestock groups. The inclusion of 10 groups was based on the willingness of sample farmers to be involved in the research.

Data Analysis Method

In relation to the implementation of the partnership program, the data were analysed and presented descriptively. The analysis technique used in this research is descriptive analysis through statistical calculations. Through the questionnaire, the point score for each indicator was obtained and then the average was calculated and grouped into categories of effectiveness level in Table 1.

Table 1. Classification of Effectiveness Level

Ratio of Effectiveness	Percentage	Description
1,00 – 1,75	<43,75%	Highly ineffective
1,76 – 2,51	43,76% - 62,75%	Ineffective
2,52 – 3,27	62,76% - 81,75%	Effective
3,28 – 4,00	81,76% - 100%	Highly effective

Source: Primary Data (2024)

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RESULT AND DISCUSSION

Profile of Cooperative

Sapi Merapi Sejahtera Cooperative is a dairy cooperative located in Umbulharjo Village, Cangkringan District, Sleman Regency. The population of smallholder dairy cows in 2021 was 2,549 heads, almost touching 75% of the dairy cattle population in Sleman Regency. Cangkringan sub-district is one of the sub-districts located at the foot of Mount Merapi and became an area affected by the eruption disaster in 2010. This caused very serious geographical and economic impacts, considering that 3,770 ha was agricultural land. Today, Cangkringan sub-district is growing and engaged in tourism, agriculture, and animal husbandry.

Samesta is the result of the Merapi Project, a programme run by private company PT Danone, as a post-disaster economic development effort. Since 2012, PT Danone initiated the economic revival of dairy farmers with the establishment of the Merapi Project supported by various NGOs, namely Temali and LPTP (Lembaga Pengembangan Teknologi Pedesaan). It is considered necessary to standardise this programme within the cooperative management as it has had a positive impact. The positive impacts include the existence of an institution that helps farmers get market security and training assistance. Through this institution, farmers get a clear market and do not need to be confused about where to sell the milk produced. Meanwhile, training in cage management, maintenance management, and other such trainings are needed for the sustainability of the farming business. Finally, in March 2017, the programme was officially inaugurated as a legal cooperative with Cooperative Identification Number (NIK) 3404020060001 and Legal Entity Number (NBH) 003714/BH/M.KUKM.2/III/17.

Until now, Samesta Cooperative runs a business in the field of collecting and distributing cow's milk. The fulfilment of milk needs is done in collaboration with dairy farmers as partners. Training activities are also held regularly once a month to support farmers' skills. The cooperative sells milk to the milk processing industry (IPS) and retailers. The operational management of Samesta Cooperative is divided into several management units with their respective tasks. These units include:

1. Milk Unit, a milk processing unit including storage, distribution, and laboratory testing.
2. Concentrate Unit, responsible for providing concentrates that are sold and subsidised to partner farmers. Since 2023, Samesta Cooperative has been working with a third party as the concentrate manager.
3. Cattle Unit, a business unit that manages and raises cattle in communal pens.
4. Compost and Biogas Unit, in charge of managing livestock manure that is utilised as compost and biogas with partner farmers.
5. Edu-tourism Unit, in charge of managing the course of the edu-tourism programme about dairy cows. The members of this unit are cooperative administrators, often the administrators take turns accompanying edu-tour participants so that management in this unit has not been coordinated optimally.

Profile of Partner Farmers

Partner farmers are spread across 12 livestock groups in Cangkringan and Pakem sub-districts, namely Boyong Group, Kemiri Group, Tangkisan Group, Pangukrejo Group, Balong Kulon Group, Balong Wetan Group, Gondang Group, Plosokerep Group, Ngepring Group, Bendosari Group,

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Ngipiksari Group, and Pentingsari Group. Each group has a diverse number of members, ranging from 1 person to 35 people.

Table 2. Characteristic of Partner Farmers

Respondent Characteristics	Frequency (person)	Percentage (%)
Age (year)		
30 – 39	5	5
40 – 49	28	28
50 – 59	37	37
60 – 69	22	22
70 – 79	7	7
80 – 89	1	1
Sex		
Male	65	65
Female	35	35
Last Education		
SD	49	49
SMP	17	17
SLTA	32	32
Diploma/Sarjana	2	2
Duration of Farming (year)		
≤10	26	26
11 – 20	42	42
21 – 30	26	26
31 – 40	6	6
Partnership Periode (year)		
≤2	14	14
3	36	36
4	2	2
5	38	38
6	10	10
Number of livestock (head)		
0 – 2	36	36
3 – 5	52	52
6 – 8	7	7
9 – 11	3	3
≥12	2	2
Livestock Ownership Status		
Do not own	3	3
Owned	70	70
Gaduhan	10	10
Mixed (owned and *gaduhan**)	17	17

**Gaduhan*: Collaboration between investors and farmers through profit-sharing agreements
Source: Primary Data (2024)

A total of 100 sample farmers have characteristics including: the age of farmers is dominated by those aged 50-59 years. Most farmers above 60 years old are assisted by their family members in running the farming business and attending training. The ability of older farmers to accept and apply knowledge gained from training is usually not as good as the productive age group, so the activities they participate in are usually represented by their children. As what Permataningrum et al., (2022) stated, productive age farmers are easier to understand the information provided to participate in the program, so productive farmers are easy to follow the sustainability of the program.

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The division of tasks between male and female farmers is generally not different. Female farmers also look for grass, perform sanitation, and milking. Some female farmers even do their own cultivation without the help of their husbands. A total of 49% of respondent farmers attended primary school as the dominance. According to information, farmers whose access to education is limited to primary or secondary school are not willing to participate in group or cooperative management and are more likely to participate as members only.

The average farming period was 18.53 years with the majority (42%) of farmers farming for 11-20 years. All farmers still apply traditional husbandry methods from generation to generation. There were differences in experienced farmers compared to farmers with less than 5 years of farming experience. The difference was in participation in training programmes organised by the cooperative. Some experienced farmers felt that the training programme was monotonous and covered repetitive topics, so some of them chose not to attend the training. In addition, older farmers tend to be less responsive to understanding information, as Permataningrum et al., (2022) stated that non-productive age farmers lack understanding of information and have difficulty following the program.

Farmers who have joined the cooperative since the beginning tend to be more willing to participate in the management, either as a nominee or as a board member. This is also influenced by farmer loyalty and support and trust from other member farmers. Farmers who have joined the cooperative since the beginning are considered to have a better understanding of the cooperative programme and experience in cooperative activities.

The dominance of farmers is 52% keeping 3-5 cows, and only 2% keeping ≥12 cows. This indicates that farmers' capacity to produce milk is still quite low and far from the target expected by the Cooperative. The difference in the rearing system is more based on the number of productive animals between farmers who have few cows and more than 6 cows. The difference is seen in the management of task division and time management. Farmers with less than 3 productive cows are generally able to perform sanitation, feeding and milking tasks by themselves. Meanwhile, farmers with more productive cows are usually assisted by their wives or other family members.

In general, there is no specific difference in the maintenance of owned and rented livestock. The only difference is in the distribution of profits from the livestock, which is 60% for the farmer and the rest for the cooperative. The difference in economic status is also not a contrast in the status of livestock ownership because the provision of loans for breeding cattle is based on the farmer's maintenance ability and willingness to breed cattle. Furthermore, this can causes a less than optimal income for the rented farmer as the percentage of livestock kept may not necessarily be profitable, coupled with deductions for cattle commissions. From (Wijayanti et al., 2023), to earn a proper profit, a farmer must have at least 60% lactating cows out of the total cows raised.

Implementation of Partnership Programme at Samesta Cooperative Yogyakarta

Samesta Cooperative runs a membership partnership with dairy farmers who were affected by the eruption of Mount Merapi in 2010. In this case, the cooperative acts as a collector of milk from member farmers. This mutually beneficial relationship is in accordance with the concept of partnership. According to Rosmaladewi (2018), a partnership is a business strategy within a certain period of time to achieve mutual benefits with the principle of mutual need and development. As a collector, the cooperative needs milk supply from farmers, and farmers need a market for selling their milk.

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Partnership Requirements

The initial stage of establishing a partnership is to fulfil the requirements of the farmers who will join. The requirements include:

1. Farmers must keep dairy cows. Ownership status of dairy cows is not required given the different abilities of farmers. Productivity of dairy cows is also not required, as dairy cows go through productive stages and dry periods. Farmers whose cows are experiencing a dry period do not need to resign from co-operative membership even if they do not deposit milk.
2. Farmers must submit personal data that can be accounted for to the Cooperative. In the membership application process, farmers are asked to submit personal data in the form of a copy of a valid KTP and Family Card (KK). This administrative requirement is intended to complete the data of newly joined partnership. There is no further verification to ensure the datas are valid, as long as new member gives it completely to cooperative as what it asked.
3. Farmers are willing to pay the basic deposit at the beginning of membership. The principal deposit is a sign of acceptance of the breeder as part of the cooperative. The principal deposit of Rp 50,000 is paid once during membership. This principal deposit will be returned to the farmer if the farmer resigns from the member partnership.
4. Farmers are required to pay mandatory savings. Unlike the principal deposit, mandatory deposits are paid monthly. Usually, the payment of compulsory savings from farmers is directly deducted from the monthly milk payment. The nominal amount of mandatory savings at Samesta Cooperative is Rp 10,000. Similar to the principal savings, this mandatory savings is likened to the farmer's 'savings' which will be paid in full along with the principal savings if the farmer resigns as a member.

These requirements can generally be fulfilled when farmers join as partners, but this can change at any time. For example, an epidemic or a change in the farmer's economic situation causes the farmer to no longer keep cattle. However, the cooperative does not require the farmer to leave the membership and pay the monthly mandatory savings. The hope is that the farmer can return to being productive and contribute milk. So far, that is all things cooperative can do as a support for farmers.

Rights and Obligations

The rights and obligations of each party are listed in the agreement letter. The cooperative as the first party has several rights, including receiving milk from member farmers as a commodity that is cultivated together, conducting milk standardisation tests in accordance with the stipulated provisions, obtaining full milk sales rights and setting purchase prices based on milk quality, and conducting managerial partnerships in accordance with applicable regulations including the implementation of partnership principles such as deliberations, implementation of sanctions, receipt of mandatory savings and principal savings of members, and member meetings. The right that has not been fully obtained by the cooperative is the right to receive milk, which has not been fully realised because there are many farmers who are no longer productive. Nevertheless, the cooperative does not necessarily terminate its membership.

While the obligations of the cooperative include providing payment from milk sold by farmers; providing technical assistance to farmers, including providing facilities needed by farmers and training; involving partner farmers in existing training activities; and obligations related to the managerial implementation of the cooperative, including conducting Annual Member Meetings (RAT) at the beginning of each year as well as providing accountability reports, providing financial

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transparency and implementation of cooperative programmes to member farmers, holding monthly evaluation meetings, and approaching groups or members in need.

As the second side, farmers' rights include receiving milk payment; receiving training and mentoring organised by the cooperative; applying for and receiving facilities related to the technical maintenance of dairy cows because the assistance system in the cooperative is targeted at farmers who need and apply for assistance; receiving benefits from the partnership programme that is run, including concentrate subsidies, concentrate credit, forage seed assistance, and cage facilities; as well as receiving the rights of cooperative members including the Remaining Business Results (SHU) every year at the end of the period, being invited and attending the Annual Member Meeting (RAT), having the right to nominate or be nominated as the Cooperative's management in the management period, and having the right to resign from membership and receive the proceeds of principal savings and compulsory member savings. In addition, farmers are obliged to sell milk only to Samesta Cooperative; must report daily milk production results to the cooperative; partner farmers are obliged to pay principal and mandatory savings; and comply with applicable membership rules, namely meeting the established milk standardisation.

In general, all rights and obligations of farmers as partners have been fulfilled, although not to the fullest extent. The rights of partner farmers are mainly related to receiving facilities such as training, input equipment and feed credits. Farmers who are still members are entitled to attend training through training invitations delivered to the livestock group. However, many farmers do not attend for various reasons, such as busyness and willingness. The realisation of this right has not been fully implemented because some farmers still purchase concentrates from outside the cooperative for various reasons. This means that not all farmers have fully utilised their membership rights.

For better relationship between cooperative and farmers, both of them should realize that the function of membership is to gain the best deal and profit. More detailed written regulations are needed, for example, regarding the period of tolerance for off-supply of milk and also more objective requirements regarding *gaduhan*. It would not work unless both of them are obey this regulation. As whatAndriani (2018) said, programme implementation should be based on strengthening commitment to ensure the quality of what has been developed and budgeted for. In case of violations by farmers, for not reporting the amount of production, so the farmers just gain what they report. Further, if they sell it to out of the cooperative, there will be an sanction for not accepting milk for a certain period.

Form of Partnership

The partnership between dairy farmers and Samesta Cooperative in the form of core plasma is based on the fact that the cooperative as the first side has the authority in marketing the products of the partners. In accordance with the opinion of Fitriza et al. (2012) that in the core-plasma partnership, farmers carry out cultivation activities and the proceeds from sales are submitted to the core party at a price that has been adjusted in the contents of the cooperation agreement contract. The core party in this partnership is Samesta Cooperative, and the farmer members as plasma. However, in its application, there are some fundamental differences between the form of core-plasma partnership in general and the core-plasma partnership run by the cooperative.

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Table 3. Comparison of Core-Plasma and Inti-plasma Partnership Forms of Samesta Cooperative

The aspect of implementation	Core-plasma	Core-plasma cooperative
Role of core parties	Providing funding and production facilities, offering technical assistance, management support, and managing as well as marketing the production output (Zakaria, 2015).	Providing training and mentoring tailored to the needs of farmers, as well as marketing the product.
Plasma membership system	It is highly binding and generally takes the form of contract farming, where the selling price and buying price of the products are specified in the contract agreement (Mahardika et al., 2020).	Based on a family-oriented concept and voluntary in membership, with selling prices adjusting according to the cooperative's conditions.
Management aspect	There is no transparency regarding financing for plasma farmers in the implementation of core-plasma partnerships (Ramulis et al., 2014).	Farmers participate more in program development, and there is financial transparency because farmers, as members, have the right to know the cooperative's financial situation.
Sanctions	Generally predetermined and strict, there are penalties if the specified quantity is not met, and the final consequence is the termination of the partnership (Maryati & Sari, 2018).	More flexible with an approach of consultation, consensus, and cannot terminate the partnership is only possible if a members voluntarily withdraw.

Sources: Zakaria (2015); Mahardika et al. (2020); Ramulis et al. (2014); Maryati and Sari (2018)

The implementation of the nucleus-plasma partnership in Samesta Cooperative is combined with the cooperative working principles of mutual cooperation and voluntary partnership. This means that the fulfilment of demand according to the target on traded commodities is not solely imposed on farmers without measuring the ability of farmers. Farmers are not required to produce a certain amount of milk. In addition, in the inti-plasma pattern, production capital is charged to the nucleus. The difference in realisation can be seen in the provision of the main means of production, namely dairy cows, the majority of which are owned by farmers. The principle of gotong royong is reflected in the application of the livestock ownership system and the quantity of milk deposit.

While the voluntary principle is that cooperative membership is voluntary without coercion, both in the entry and exit process. In contrast to the more strict core-plasma principle, it is generally not easy for the plasma to register and withdraw membership as a plasma. The cooperative cannot remove a plasma farmer from membership despite the fact that the farmers are no longer active and performing their obligations. The farmer's membership status can be terminated only if the farmer applies for termination as a member and withdraws the principal savings to which they is entitled. This situation could affects the amount of milk deposited by the cooperative, but maintains the principle of kinship. The absence of binding sanctions makes the relationship between cooperatives and farmers based on mutual understanding.

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As members, partner farmers are involved in indirectly monitoring the co-operative's finances. There is transparency in the form of monthly and annual performance reports in the RAT, which is not found in conventional inti-plasma systems in general. In addition, in fulfilling written rules in the form of sanctions for violations, the cooperative is more flexible. The cooperative applies the principle of kinship by approaching and deliberating if there is a discrepancy in the realisation of the agreement. This allows social relations outside of the cooperative's interests to be maintained (considering that members are neighbors), and transparency increases the trust and integrity of the farmers.

The implementation of the partnership between farmers and cooperatives fulfils the rules of the game that farmers may not sell milk other than to Samesta Cooperative and on behalf of Samesta Cooperative. All milk purchases other than those deposited with the cooperative are recorded in a sales note in the name of Samesta Cooperative, and at a selling price determined by the cooperative. So far, these rules have been agreed upon and complied with by farmers. The cooperative applies these rules to maintain the stability of the volume of milk deposited and maintain the commitment of partner farmers.

Samesta Cooperative has the authority to determine the purchase price of milk from farmers. Milk pricing varies based on the amount of total solid (TS) milk after lab testing. Every 1% TS is valued at IDR400. The difference in the price given by Samesta Cooperative compared to other cooperatives is the price subsidy from the base price. The subsidy is an additional purchase price from the base price given by the cooperative to partner farmers, usually ranging from Rp 1,000 to Rp 1,700. Some dairy cooperatives do not apply price subsidies, for example, KPS Bogor sets the purchase price of milk based on quality without subsidies (Gandhy & Kurniawati, 2018). The amount of the subsidy tends to fluctuate according to the cooperative's profitability and finances in a particular period. Farmers tend to enhance te quality of their milk, so they will be able to get the best price and minimalize the income reduction.

Impact of Partnership

The impact of the partnership programme perceived by the cooperative is:

1. Able to run the economy according to the principle of mutual cooperation with farmers as milk producers to meet market demand. Although in reality the target of selling milk to IPS is still not achieved, the cooperative consistently sells milk according to its ability. This is because of some factors, one of the most is quantity of cow include the cow' productivity phase. Cooperative has been tryting to provide *gaduhan* and subsidies for partner farmers, but it has not been working efectively.
2. Getting partners who are already known and easy to reach because the focus of member empowerment is farmers around the cooperative. This is beneficial in terms of cost and mutual trust between partnering parties. The characteristics of partner farmers in one area tend to be the same and know each other, so coordination and family-based institutions are easier to run. Geographical proximity also facilitates the flow of milk distribution and supports efficiency.
3. Receive extensive support and input for programme development from the partner breeders due to the involvement of the breeders in the evaluation of the programme. The monthly evaluation meeting becomes a communication platform between the farmers and the cooperative, where the farmers can participate in the organisation of the cooperative and convey inputs based on their point of view directly.

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4. Obtaining quality milk commodities that are competitive in the market.

While the impacts experienced by partner farmers economically and socially include:

1. Guaranteed milk market. Farmers do not have to struggle to find a market to sell their milk. This is different if farmers have to sell milk independently because most farmers have limited market access and small production scale.
2. Receive material assistance. Due to the fact that the majority of farmers' cultivation techniques are still traditional, obtaining livestock infrastructure facilities is not easy. Through partnerships, farmers receive assistance that supports the milk production process, such as carpets and milkcans as well as forage seeds.
3. Farmer education. Partner farmers receive comprehensive cultivation assistance and training. This increases farmers' knowledge and skills, minimising the risk of maintenance. This is in contrast to the training that independent farmers rarely receive from government institution. The training provided by the cooperative is more focused and in accordance with the needs or problems faced.
4. Organisational and managerial skills. Through farmer membership, farmers have rights, obligations and roles in the implementation of the partnership. Indirectly, this increases farmers' awareness of their role in the organisation and their responsibilities as cooperative members. The simplest example is the involvement of farmers in deliberations and evaluation meetings.
5. Relationship expansion. In addition to training, the cooperative also has a regular forum with member farmers, which serves as a forum for introduction and interaction between the co-operative management and farmers, as well as farmers and other member farmers.
6. Mastery of technology. Farmers are able to apply simple technologies that are beneficial for business continuity, such as participating in the biogas programme. Now there are 8 biogas installations that maintained by farmers and still utilized for domestic household needs, not yet widely used commercially. However, farmers can reduce the domestic expenses.

The Challenges of Partnership Program

In implementing the partnership program, both parties encounter various challenges. For the cooperative, meeting market demand remains difficult, as it can reach up to 20,000 liters while the daily milk production is only 1,810 liters. Maintaining milk quality is also a challenge due to its susceptibility to contamination. Therefore, Samesta Cooperative actively promotes skill enhancement among farmers to increase productivity through mentoring and training. Additionally, to ensure milk quality, the cooperative implements a purchasing price based on total solid quality, conducts milk testing three times a month on unspecified dates, and imposes sanctions on farmers who violate milk quality standards. These sanctions include warnings, purchasing milk at base price, and refusal to accept milk for a certain period.

The cooperative also faces challenges related to the lack of trust and commitment, as evidenced by the low awareness among farmers in utilizing credit facilities for concentrate and information management. To address this issue, regular monthly forums are organized, attended by partner farmer members and cooperative management, for program socialization and information dissemination. These forums also serve as a platform for evaluating the partnership program. Additionally, the constraint of insufficient medical personnel results in not all farmers receiving adequate medical assistance. In this regard, the cooperative seeks additional medical personnel through proposals submitted to relevant government bodies or supporting stakeholders.

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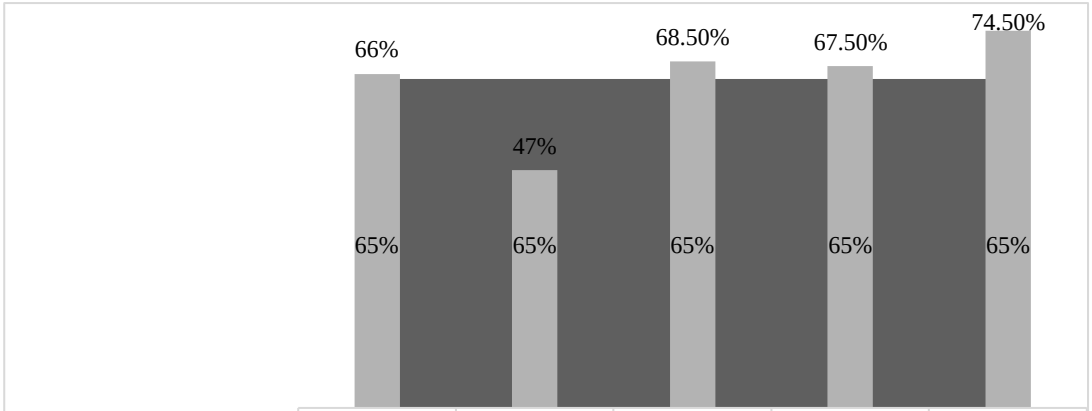
The main issue faced by farmers is the challenge of increasing milk productivity. According to farmers, milk production needs to be supported by the number of productive cows raised. In reality, adding one cow is quite difficult. This is due not only to the high price of cows but also because newly born calves are prone to death due to health issues. The solution of the contract farming program is well-received by farmers. However, realizing the limited capacity of the cooperative, not all farmers who apply for contract farming assistance have their requests fulfilled.

Another challenge is related to the participation of farmers in cooperative institutions. Farmers' limited understanding of their obligations as members leads to many farmers becoming passive. Passive participation refers to not attending meetings or training sessions, not expressing opinions, and not volunteering for new leadership positions. The lack of awareness among farmers to actively participate often hampers the development process of cooperative programs. Another way for farmers to participate in governance is by exercising their voting rights as members to elect the best candidate for leadership positions. In practice, the cooperative has explained the contract of the partnership from the beginning and re-informed the farmers. There are no special punishment imposed on passive farmers. cooperatives usually communicate with farmers and still give their rights at RAT. this is due to the limitations of the cooperative in providing gaduhan assistance so that not all farmers who need cows can be facilitated.

The Effectiveness of Partnership Programs in Samesta Cooperative Yogyakarta

According to Jorgi et al., (2019) , a program is considered effective when its objectives or goals are achieved as previously established. This research measures the effectiveness of partnerships through indicators stated by Sutrisno (2007), namely program understanding, timeliness, target accuracy, goal achievement, and positive changes. Based on the results, the highest percentage was obtained in the timeliness variable at 86.80%, while the variable of tangible changes showed the lowest percentage result at 19.26%.



	Requirements	Duration	Rights	Obligations	Objectivity
Program Understanding	65%	65%	65%	65%	65%
Achievement	66%	47%	68.50%	67.50%	74.50%

Figure 1. Achievement of the Variable Program Understanding
Source: Primary Data (2024)

Based on the data, the highest value for the program understanding variable is found in the farmers' understanding of the partnership's objectives, which is 74.50%. This indicates that farmers

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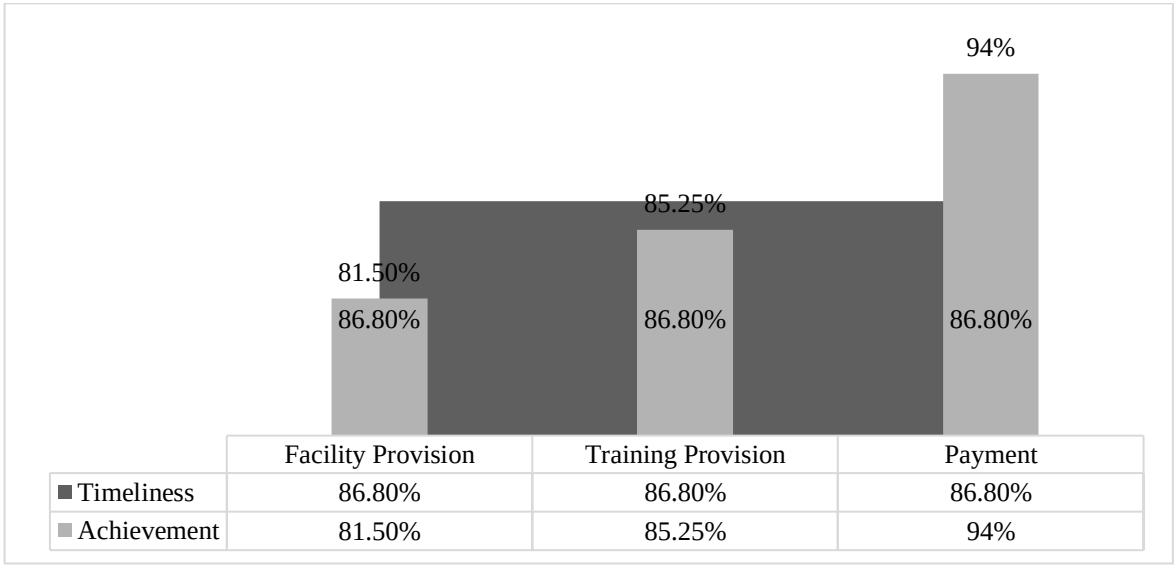
are sufficiently capable of explaining the economic and social objectives of the partnership. Meanwhile, the lowest index is found in the farmers' understanding of the duration of the cooperation. This can be explained by the fact that most of the respondent farmers own their own dairy cows, where there is no specific agreement governing the duration of the cooperation. As long as farmers are able to deliver milk and/or actively participate in cooperative activities, they are still considered partner members. Generally, farmers who do not cooperate properly with the cooperative do not understand the applicable terms of cooperation duration.

The next indicator of understanding the program is regarding the rights and obligations of farmers as members or partners. Generally, farmers have a better understanding of their rights compared to their obligations. The understanding index regarding rights and the understanding index regarding obligations show a close difference, at 68.50% and 67.50% respectively. Partner farmers typically understand their rights, such as receiving payment for the milk sold, receiving Net Surplus from Operations (SHU), attending the Annual General Meeting, and receiving subsidies for animal feed. Meanwhile, the obligations most understood by farmers are the obligation to deliver milk and to pay the mandatory monthly deposits.

The indicator of understanding regarding the terms and criteria for becoming a partner shows an index of 66%. This index is related to the ability of farmers to explain the requirements for becoming a partner. In most cases, farmers can only answer one out of three applicable requirements, which is to submit a copy of their identification card to the cooperative or livestock group at the beginning of the application process. Understanding the program is essential for farmers because by comprehending the partnership program, farmers can execute the partnership according to the agreed-upon terms. This aligns with the opinion of (Muntaha, 2021) that understanding the partnership procedures leads to smooth partnership processes with minimal obstacles. One of the means for understanding the program is through cooperatives conducting program socialization after farmers officially become partner members. The process of understanding the partnership program involves the Cooperative, where the cooperative explains the partnership provisions when farmers submit their personal data to the cooperative.



	Facility Provision	Training Provision	Payment
Timeliness	86.80%	86.80%	86.80%
Achievement	81.50%	85.25%	94%

Figure 2. Achievement of the Variable Timeliness
Source: Primary Data (2024)

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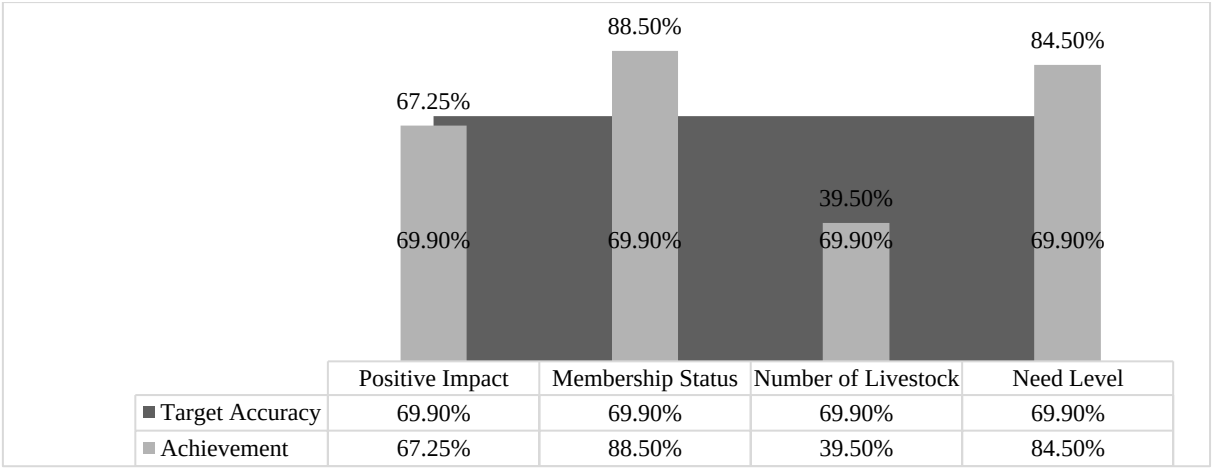
The highest index is indicated by the aspect of timeliness in milk payment, which is 94%. According to the agreement, payment for milk sales is provided every month from the 1st to the 5th, adjusting to the working days of the current month. The training provision indicator index shows a value of 85.25%, and cooperative farmers acknowledge that the response is quite responsive. The training conducted is perceived to be in line with the needs of farmers as it relates to technical aspects of husbandry. Meanwhile, the response to complaints expressed by farmers is considered quite good, without lengthy processes. The facilities provision index shows a magnitude of 81.50%. According to farmer accounts, assistance such as milk cans, carpets, and other facilities generally require an allocation time of less than one month after submission. This is perceived by farmers to be relatively short without lengthy processes. However, not all farmers receive assistance in the form of animal feed; only those who apply for it receive such assistance.



	Positive Impact	Membership Status	Number of Livestock	Need Level
Target Accuracy	69.90%	69.90%	69.90%	69.90%
Achievement	67.25%	88.50%	39.50%	84.50%

Figure 3. Achievement of the Variable Target Accuracy
Source: Primary Data (2024)

According to the analysis results, 69.94% of partner farmers meet the target accuracy. The highest index is given by the aspect of farmer membership status, which is 88.50%. The majority of farmers are active and productive, while others are active but not productive. The inactive productivity of some active farmers is caused by various factors, such as calves, dead parent cows, or being in a dry period at the time of the research. The lowest index is in the ownership of productive cows, which is only 39.50%. This value is because most farmers only own 1-3 productive cows, with the rest being unproductive. The next indicator is related to the needs of farmers for partnership programs with cooperatives, which shows an index of 84.50%. Farmers acknowledge the need for cooperatives as a means to guarantee milk sales and find it more advantageous to sell milk through cooperatives rather than independently. This is because through cooperatives, market certainty is ensured and there is ease in distributing the milk sold. The impact of concentrate subsidies and animal feed assistance is not a concern for farmers because there are still some farmers who do not utilize these subsidies. The main reason is that farmers already have their own concentrate supplier subscriptions. This is indicated by the index of the positive impact of partnership programs, which is 67.25%.

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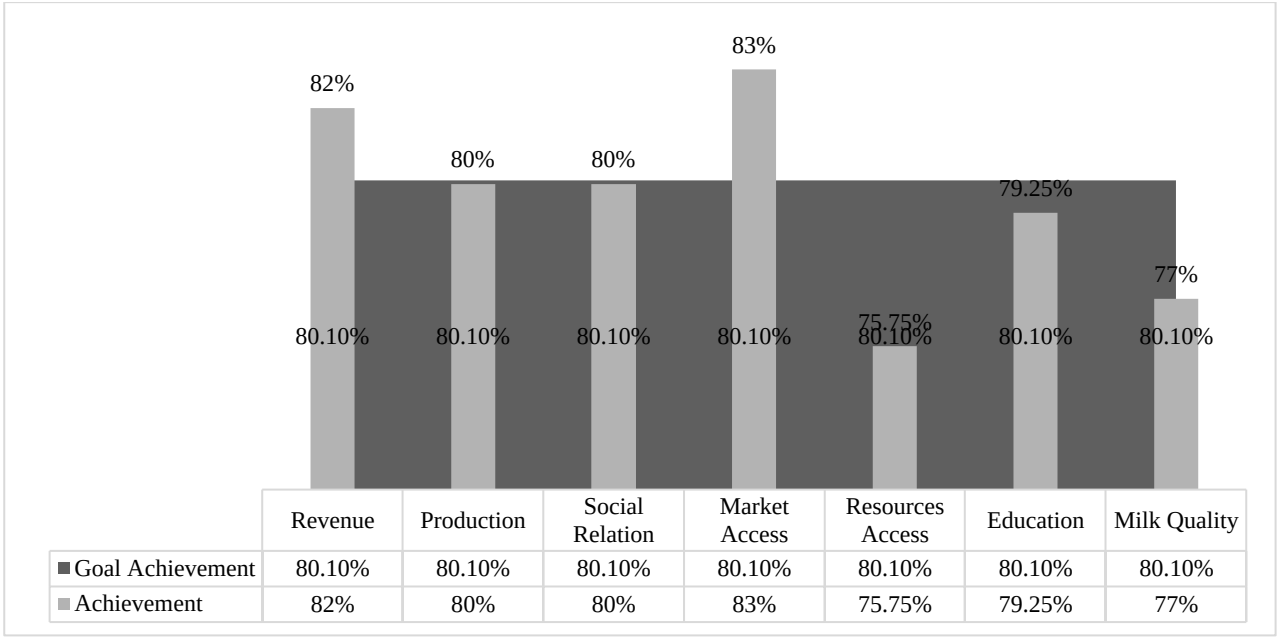

	Revenue	Production	Social Relation	Market Access	Resources Access	Education	Milk Quality
Goal Achievement	80.10%	80.10%	80.10%	80.10%	80.10%	80.10%	80.10%
Achievement	82%	80%	80%	83%	75.75%	79.25%	77%

Figure 4. Achievement of the Variable Goal Achievement
Source: Primary Data (2024)

Achieving goals in a straightforward manner indicates an effective program. As outlined by Kuncoro et al., (2022), the benchmark for partnership effectiveness is based on partnership goals agreed upon by each party. The highest success index in goal achievement is demonstrated by the indicator of market access assurance, at 83%. Through partnership, farmers secure milk sales, encompassing price certainty, easier distribution, and high purchase quantities. The next goal indicator with a relatively high index is the acceptance indicator, at 82%. This is also influenced by the cooperative's higher purchase prices. The cooperative's ability to offer higher prices is due to the higher quality of assured milk. However, farmers acknowledge that the income earned tends to fluctuate. This is due to fluctuating milk production in line with the productive period of cows.

Continuing with the indicator of enhancing social relationships among farmers, it reveals an attainment rate of 80%. This figure signifies that the existence of partnerships enables farmers to broaden their networks within the group, cooperative, and even among stakeholders. Farmers acknowledge that their membership in Samesta Cooperative entails engaging in various activities and training sessions, which foster interactions among farmers, facilitate communication with the cooperative, and introduce them to stakeholders serving as training facilitators.

The next objective is to increase milk production, with a success index of 80%. Milk production directly correlates with farmers' income on a monthly basis. Cow productivity tends to fluctuate, often influenced by factors such as feed quality, cow health, and productive lifespan. Farmers strive to enhance milk productivity by improving husbandry techniques in accordance with the guidance and training provided. Productivity is also evaluated based on milk quality, which indicates a score of 77%. This implies that although it generally meets the specified standards, there are instances where the milk quality falls short, ultimately resulting in its purchase at lower prices.

The objective of providing training and mentoring demonstrates a success index of 79.25%. According to farmers' statements, the training provides additional knowledge relevant to their farming experience. Despite feeling experienced in dairy farming, farmers find themselves sufficiently aided by new information obtained from the training sessions. The majority of farmers apply the knowledge

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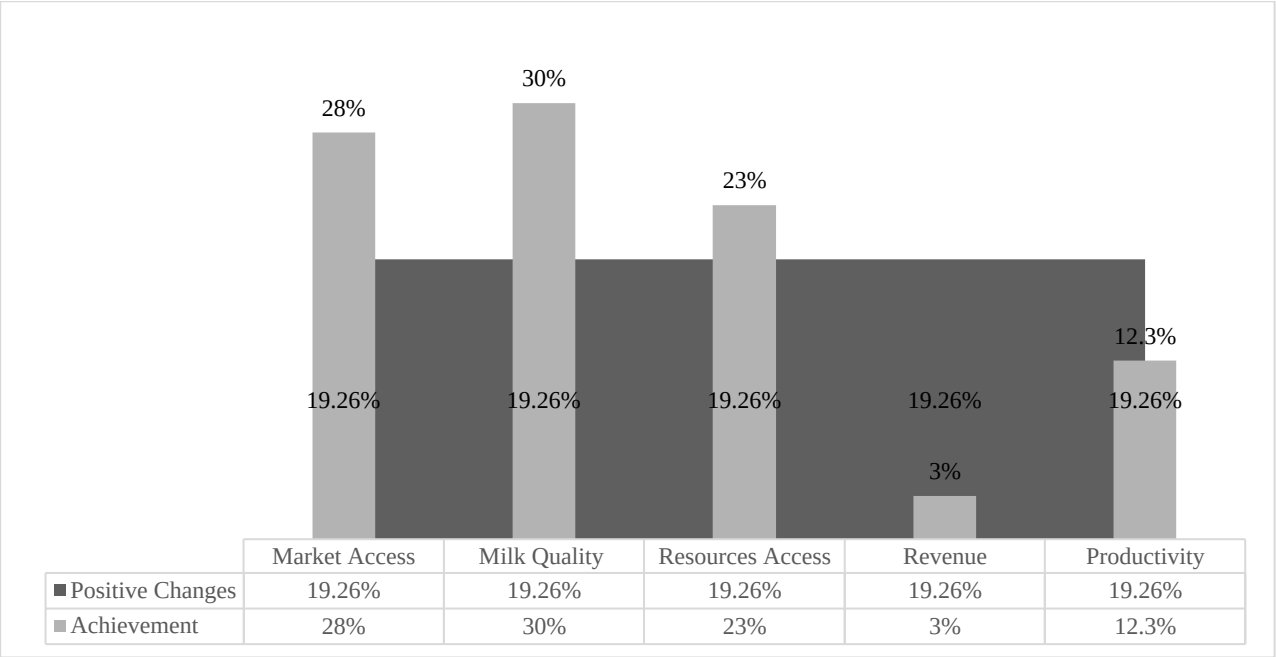
acquired. The accessibility of assistance in accessing production facilities at Samesta Cooperative is unevenly distributed, hence the achievement level for this indicator stands at 75.75%. Not all farmers have requested assistance for production facilities and utilized the subsidies provided, as they feel capable of meeting their needs independently.



	Market Access	Milk Quality	Resources Access	Revenue	Productivity
Positive Changes	19.26%	19.26%	19.26%	19.26%	19.26%
Achievement	28%	30%	23%	3%	12.3%

Figure 5. Achievement of the Variable Positive Changes
Source: Primary Data (2024)

The effectiveness of the partnership should demonstrate positive changes before and after the implementation of the program. The changes measured in this study include improvements in market access, milk quality, access to production facilities, income, and milk production. The results indicate that the average index for the five indicators before farmers engaged in partnership with Samesta Cooperative was 64%. However, after farmers participated in the partnership program, the average index increased to 83.30%. This indicates a positive improvement across these indicators. The average score of partnership program effectiveness at Samesta Cooperative, based on the five effectiveness indicators, is 64.30%, categorizing the partnership program as effective. According to the classification of effectiveness levels derived from statistical calculations, the effective category is indicated by a score range of 62.76% - 81.75%. This indicates that the program implemented has been able to achieve its targets and is worthy of continuation. However, improvement notes need to be considered for each indicator, especially those with lower effectiveness. This is to support the sustainability of the partnership program. Meanwhile, research conducted by Handayani et al., (2021) showed an effectiveness score of 64,05% as measured by several additional indicators such as programme socialisation, monitoring, and evaluation. This result is partly due to the ineffectiveness of the programme's socialisation process to farmers. similar to this study, namely the need to strengthen programme socialisation and comprehensive monitoring.

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CONCLUSION AND SUGGESTION

The implementation of the partnership between dairy farmers and Samesta Cooperative in Yogyakarta involves Samesta Cooperative as the first party responsible for purchasing milk from farmers, providing mentoring and training, and ensuring the operational aspects of the partnership with farmers according to cooperative principles and regulations. The farmers, as the second party, are obliged to sell milk to the cooperative and fulfill organizational requirements as cooperative members. The partnership takes the form of nucleus-plasma with a cooperative concept. The impact felt by the cooperative includes driving the economy and ensuring a supply of quality milk, while for farmers, it provides market certainty, production facilities, education, and social relations. Challenges faced by both parties relate to productivity constraints, facilities, and information transfer. The partnership program between dairy farmers and Samesta Cooperative is considered effective with an effectiveness percentage of 64.30% and is deemed worthy of continuation with some improvement notes. To improve the program, there is a need for enhanced initial socialization to member farmers regarding their rights and obligations, partnership provisions, and strengthening member roles. Additionally, efforts to improve productivity can be made by strengthening cooperation with relevant stakeholders in providing the necessary facilities for farmers. To reinforce farmer commitment, the cooperative is encouraged to establish Standard Operating Procedures (SOPs) for handling passive farmers. For farmers, there needs to be awareness of their role as partner farmers and members by consistently participating in cooperative activities.

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