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**STRENGTHENING FARMER'S GROUP ASSOCIATION (GAPOKTAN)
BASED ON INSTITUTIONAL PERFORMANCE AND THE POTENTIAL OF SOCIAL
CAPITAL AVAILABLE TO INCREASE RICE PRODUCTION IN PALEMBANG CITY,
INDONESIA**

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ABSTRACT

Efforts are needed in government programs aimed at promoting food self-sufficiency, particularly rice production, to increase sustainable rice production. Farmers with the capacity to meet and resolve problems can be realized through effective Gapoktan management and farmer empowerment based on social and institutional capital. This research was conducted in Palembang City where samples were taken in Gandus Sub-District, Ilir Timur II Sub-District, Kertapati Sub District and Kalidoni Sub-District. The location was chosen purposively with the knowledge that the area is home to a large number of rice farming groups, each with its own set of membership issues. The descriptive analysis with a qualitative approach was used as the research method. The components of social capital were then laid out in the form of structured questions that cover trust, norms, networks, and cooperation. Researchers used a probability sampling technique, namely proportionate random sampling with the Slovin formula, to collect samples. The role of Gapoktan institutions in assisting lowland rice farmers' farming was analyzed using a scoring method with a Likert scale. Based on the research results, the indicators of trust, norms, and network and cooperation indicators each get a value of 2.86, 2.84 and 2.85, respectively.

KEY WORDS

Gapoktan, farmers, rice, social capital, production.

To achieve food sovereignty and self-sufficiency, professional, dependable, and capable main actors and business actors in terms of managerial, entrepreneurial, and business organization are required. To improve their bargaining position, the main actors and business actors are expected to be able to build competitive and sustainable farming businesses. Along with that, the capacity and capability of the main actors and business actors will be improved, one of which is through counseling with a focus on fostering farmer institutions, which includes the growth and development of farmer institutions. Through this institution, it is hoped that farmers can come together to develop their institutions into Farmers' Economic Institutions (KEP) that are highly competitive, productive, apply good business governance, and are sustainable. Strengthening farmer institutions is very much needed in the context of protecting and empowering farmers. Furthermore, farmers can develop institutions from, by, and for farmers in order to strengthen and fight for their own interests in accordance with the combination of culture, norms, values, and local wisdom of farmers.

The farmer group empowerment program in this case must be able to improve the ability of farmer groups in terms of: (1) understanding the potential and weaknesses of the group, (2) taking into account the opportunities and challenges faced in the future, (3) choosing various alternatives to overcome the problems faced in the future. faced, (4) organize a group and social life in harmony with the environment on an ongoing basis.

Good Gapoktan management will indirectly have an impact on the productivity of farmers in their farming activities. Besides that, Gapoktan will also make it easier for farmers to regulate agriculture with fellow farmers. According to Susanto's research, there are three important roles of Gapoktan for farmers: 1. Facilitator, providing farm workers with necessary equipment. 2. Educators, namely those who teach group members to cooperate with one



another in one farmer group member and who establish relationships with farmers who own or rent rice fields. 3. Community representatives, tasked with leading and being responsible for carrying out deliberation and consensus with farmer group members, discuss together the problems faced by farm workers who are members of farmer groups.

Palembang City currently has 28 Gapoktan. The average increase in the number of farmer group members over a given time period is 25% (Palembang City Agriculture and Food Security Office, 2017). Participation in becoming a Gapoktan member is due to the various activities that have been carried out thus far that are considered capable of directly or indirectly contributing to farming activities. Farmers experienced a variety of benefits, including a significant increase in income as a result of increased knowledge and skills. Aside from advantages, Gapoktan institutions frequently encounter problems such as a crisis of trust between one member and another or between members and group leaders, a lack of participation of all members due to the large number of Gapoktan members, so that not all of them can be accommodated and their participation is seen properly and correctly.

Another issue that frequently arises is the stagnation of Gapoktan's work plan due to a lack of knowledge among the members, which results in indifference to the institution's goals. This condition was discovered in Palembang City's Gapoktan in Gandus Sub-District, Ilir Timur II Sub-District, Kalidoni Sub-District, and Kertapati Sub-District. Table 1. contains the more detail information.

Table 1 – Number of Paddy Gapoktan and its Members in Palembang City

No	Name of Sub District	Name of Farmers' Group	Number of Members (People)
1	Gandus	Gabsu	274
		Bina Usaha Mandiri	279
		Mandiri	362
		Jaya Bersama	188
		Keramba Jaya	67
2	Ilir Timur II	Mitra Bersatu	77
3	Kertapati	Maju Bersama	505
4	Kalidoni	Petani Bersatu	304
	Total		2.056

Source: Department of Agriculture and Food Security of Palembang City in 2019.

The goal of this study was to assess the institutional role of Gapoktan in Palembang City's lowland rice farming in terms of enhancing rice farming performance through the empowerment of social capital. Strengthening social capital, which is the key to synergies inside an organization, was used to solve the problem of institutional solidity. Gapoktan's progress and development will be determined by the members' and administrators' willingness to work together to attain the established goals. Gapoktan is a type of organization with a shared vision and mission. Apart from being more independent and autonomous in dealing with their difficulties, farmers who unite together in an agricultural institution will almost likely enable for future organizational development. Farmers will be able to solve a variety of challenges, including production, capital, organization, and marketing, with the integration of all aspects in the institution. Empowering groups in agricultural institutions will make it easier to generate superior regional commodities, which are critical for the long-term viability of farming processes and the rural economy.

METHODS OF RESEARCH

The research method used in this study was descriptive analysis with a qualitative approach which aimed to provide an overview of the condition of farmer institutional activities in the research location. The number of Gapoktan in Gandus Sub-District is 5 (five) Gapoktan consisting of 1170 members. Sampling was done based on probability sampling technique, namely proportionate random sampling using the Slovin formula. According to Sugiyono (2010), probability sampling is a sampling technique that provides equal opportunities for each element (member) of the population to be selected as a member of the sample.



$$n = \frac{N}{1 + ne^2}$$

Where: n = Sample size; N = population size; e = Sampling error (set 10%); 1 = Number constant.

From 8 (eight) Gapoktan with a total of 2056 members, it can be determined that the sample size in each group that can be taken is 95 people. Determining the size of the sample in each class is done by proportional allocation so that the sample taken is more proportional in the following way:

$$\text{Number of samples per group} = \frac{\text{Number of samples}}{\text{Number of population}} \times \text{Number of each group}$$

Table 2 – Calculation of the Number of Gapoktan Samples

No.	Name of Farmers' Group	Population (People)	Number of Samples (People)
1.	Gabsu	274	13
2.	Bina Usaha Mandiri	279	13
3.	Mandiri	362	17
4.	Jaya Bersama	188	9
5.	Keramba Jaya	67	3
6.	Mitra Bersatu	77	3
7.	Maju Bersama	505	23
8.	Petani Bersatu	304	14
	Total	2056	95

To answer the purpose of describing the role of Gapoktan institutions in assisting lowland rice farmers' farming, it was analyzed using a scoring method with a Likert scale, and then explained descriptively. The measurement of the role of Gapoktan is carried out from three aspects of the role of Gapoktan, namely facilitators, educators and community representatives. In this case, a scale of 1 to four 3 is used with details 1 (Low), 2 (Medium), and 3 (High).

The formula used to measure the interval is as follows:

$$NR = NST - NSR$$

$$PI = NR - JIK$$

Where: NR = Nilai Range, NST = Highest Score, NSR = Lowest Score, JIK = Number of Class Intervals, PI = Class Interval Length.

Table 3 – Class Interval Score Total and Per Question for Assessment

No	Value of Class Interval (total)	Value of Class Interval (per indicator)	Value of class interval (per question)	Criteria
1.	$9,00 \leq X \leq 15,00$	$3,00 < X \leq 5,00$	$1,00 < X \leq 1,66$	Low
2.	$15,00 < X \leq 21,00$	$5,00 < X \leq 7,00$	$1,66 < X \leq 2,33$	Medium
3.	$21,00 < X \leq 27,00$	$7,00 < X \leq 9,00$	$2,33 < X \leq 3,00$	High

Production costs and income of farmers belonging to Gapoktan from rice farming that are run are calculated using the formula according to Sudarman (2001) where the total cost is the total fixed cost plus the total variable cost. The total cost can be determined by using the following equation:

$$TC = TFC + TVC$$

Where: TC = Total Cost, TFC = Total Fixed Cost, TVC = Total Variabel Cost.



RESULTS AND DISCUSSION

The high income is determined by the production and price of rice. Farming income is directly linked to production and selling price, with higher production and selling prices resulting in more income for farmers, and vice versa. Farmers' income is affected by the amount of production and the price at which it is sold. Table 4 shows the average income of rice farmers in the city of Palembang in detail.

Table 4 – Average Production and Revenue of Rice Farming in Palembang City

No	Description	Total Cost (IDR/ha/th)
1	Price	4,800
2	Production	5,477
3	Receptance	26,288,842

Source: Processed from primary data, 2020.

With a price of IDR 4,800 and an average total production of 5,477 per hectare per year, the average total rice farming revenue in Palembang City is IDR 26,288,842 per hectare per year, according to the table.

Table 5 – Paddy Farming Income in Palembang City

No	Income	Total Cost (IDR/ha/th)
1	Receptance	26,288,842
2	Production Cost	1,107,169
	Total	25,181,673

Source: Processed from primary data, 2020.

The average total revenue of rice farming respondents in Palembang City is IDR 25,181,673 per hectare per year, according to Table 5. The income of respondent farmers influences the incorporation of respondent farmers into Gapoktan for a variety of reasons.

The ability of a community to work together to establish a social network in order to achieve common goals is the most important aspect of social capital. There are factors in social capital. The components of social capital, such as trust, norms, networks, and cooperation, are then defined in the form of structured questions.

Table 6 – Social Capital Indicators for Institutional Strengthening of Rice Farmers

No	Indicator	Mean	Description
1	Trust	2.86	High
2	Norm	2.84	High
3	Network and Cooperation	2.85	High
	Total	8.56	

Source: Processed from primary data, 2020.

It can be observed from Table 6 that the confidence indicator has high criteria. Gapoktan members trust the group management, which is one of the criterion for trust indicators. They believe Gapoktan administration will work ethically and aggressively to achieve Gapoktan's objectives. This is the reason why Gapoktan members are unconcerned about the possibility of internal strife. Not all Gapoktan members are directly active in these activities, according to the criteria for networking indicators that connect Gapoktan with outside institutions. Members also recognized that the Gapoktan administration had held regular meetings while considering the requirements for the value of collaboration. Cooperation is also reflected when the election of Gapoktan management is carried out by deliberation/consensus.

According to the findings of the scoring above, all of the indications on the norms, namely a sense of competition, accountability, and written regulations, are rated as high. In terms of competition with other members, the criteria are that they aim to get the most out



of their own farming. There is a healthy sense of competitiveness here, when Gapoktan members try to learn to be active in order to reach their goals. Furthermore, each member comprehends and knows the meaning and responsibilities of each Gapoktan normative regulation. Not only that, but each Gapoktan has written rules that must be followed by all members. Compliance with norms will give status and respect from the group. Members of a group can internalize group norms to increase their value and status.

Table 7 – Results of Measurement of Norm Indicators in Social Capital

No	Norm	Mean	Description
1	Feel of Competition	2.83	High
2	Responsibility	2.87	High
3	Written Regulation	2.83	High
Total		8.54	

Source: Processed from primary data, 2020.

Table 8 – Measurement Results of Trust Indicators in Social Capital

No	Trust	Mean	Description
1	Trust towards the member of another group	2.87	High
2	Attitude of trusting the activity committee	2.84	High
3	Attitude of helping each other	2.85	High
Total		8.57	High

Source: Processed from primary data, 2020.

According to the findings of the survey, members of farmer groups have a high level of trust in their fellow farmers. Gapoktan members have a high level of trust, which includes trust in the management, fellow members, and other parties. The prerequisites for this level of confidence grow as a result of management's transparency with members, beginning with financial accounting (cash), details of government equipment support, and management's activeness in sharing information regarding technology adoption and innovation. A high level of trust is a potential that can be used to strengthen and develop Gapoktan in Palembang City.

The cooperation network is a dynamic infrastructure of social capital owned by farmers who are members of farmer groups, both in collaboration with fellow members in one group or with other parties outside the group who are members of the Gapoktan in Palembang City. For indicators of network and cooperation can be seen in Table 9.

Table 9 – Results of Measurement of Network Indicators and Cooperation in Social Capital

No	Norm	Mean	Description
1	Cooperation in maintenance	2.87	High
2	Cooperation in utilization	2.83	High
3	Cooperation in monitoring and evaluation	2.84	High
Total		8.55	

Source: Processed from primary data, 2020.

Table 9 shows that all indicators were in the high category, in terms of cooperation in maintenance, utilization and monitoring and evaluation. The high level of cooperation between members in this study can be seen from the rice plant maintenance activities carried out on a scheduled basis and coordinated by the respective group leaders. Utilization of land and agricultural machinery were carried out through cooperation and arranged schedule of the use of agricultural machinery for rice farming. Not only those Gapoktan members also cooperate with fellow members in the effort to utilize farming results as well as in terms of monitoring and evaluation. The implementation of farming, starting from land processing activities to harvesting, is carried out in collaboration by Gapoktan members.



CONCLUSION

Based on the analysis and discussion that has been described in this study, it can be concluded as follows: The role of Gapoktan in rice farming, which is divided into roles as facilitator, educator, and community representative, are in the criteria of having a very important role. The average total income of rice farming respondents in Palembang City is Rp. 25,451,892 per hectare per year.; The relationship between Gapoktan performance and respondents' rice farming income was analyzed using the Spearman test which stated that there was a significant relationship between Gapoktan performance and respondents' rice farming income of 64 percent; Social capital from indicators of trust, norms, as well as networks and cooperation in the high category.

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