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Social Capital of Women Farmer Group Members in The Program of Sustainable Food Home Model

Budi Dharmawan[1], Wahyu Adhi Saputro[2]
Department of Agricultural Economics and Social Sciences, Faculty of Agriculture, Jenderal Soedirman University, Indonesia
Jl. H.R Boenyamin 993. Purwokerto, Kabupaten Banyumas, Jawa Tengah, 53122, Indonesia
*Corresponding Author: budi.dharmawan@unsoed.ac.id
orcid: 0000-0002-1939-3890

Abstract
The Women Farmers Group (KWT) was established with the aim of enhancing the well-being of farming families, with a particular focus on empowering women. KWT has expanded and flourished across various regions, including the Wonosobo District area. One of the active KWTs in Wonosobo District is KWT Legowo. Currently, KWT Legowo is implementing a sustainable food housing program. The successful execution of this program necessitates the presence of social capital. This study aims to accomplish the following objectives: 1) evaluate the status of social capital (participation, reciprocity, trust, cooperation networks) within KWT Legowo and 2) analyze the relationship between social capital (participation, reciprocity, trust, cooperation networks) and the income generated by KWT Legowo members. The sample for this study comprises 32 members of KWT Legowo. The selection of the study location was purposeful, taking into account the active nature of KWT Legowo and its achievement of second place in the Adhikarya Pangan Nusantara competition at the Central Java Province level. Data analysis in this study utilizes social capital assessment and product moment analysis. The research findings indicate that KWT Legowo exhibits favorable social capital characterized by active participation, reciprocity, trust, and cooperation networks, which achieve high average scores. Furthermore, there exists a significant relationship between social capital and the income earned by KWT Legowo members. Participation, trust, and network cooperation demonstrate a weak degree of association with income, while reciprocity exhibits a moderately strong correlation with the income of KWT Legowo members.

Keywords: *KWT Legowo, Sustainable Food Home Area, Social Capital*

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INTRODUCTION

Social capital, as identified by Rodgers et al. (2019), emerges as a pivotal determinant in individual development. It serves as a framework for social interactions within a society, encompassing principles of reciprocity, shared norms, and collective beliefs. A well-connected network of intercommunity relations fosters mutual advantages. The concept of social capital is observable in interpersonal communication and relationships, which, in turn, drive positive progress within communities (Carmen et al., 2022). Furthermore, social capital significantly impacts the performance of communities. Its presence bolsters the economic entities within a community, enabling individuals to access more opportunities and achieve success through networks and established acquaintances (Spottswood & Wohn, 2020). Moreover, regular exposure to social capital enhances individuals' inclination to relocate and expands their prospects for securing new employment in their respective locales (Ali, 2019).

To gain a comprehensive understanding of societal dynamics and cultural influences, it is imperative to conduct studies on social capital, as highlighted by McKeever et al. (2014). The concept of social capital has been present for many years, with varying definitions attributing it as a significant aspect of social networks and relationships. Thus, social capital is best described as the outcome of interactions between individuals, giving rise to social connections and a sense of solidarity (Kwon & Adler, 2014). Values and norms serve as tangible resources that individuals are expected to possess, allowing them to effectively address complex challenges with greater ease. Individuals who possess a high level of social capital, combined with resource management skills, are more likely to create and transfer ideas, thoughts, and similar concepts through social mechanisms such as traditions or responsible habits passed down from person to person. Local community characteristics also play a role in shaping social capital, particularly in rural areas (Weiss et al., 2019). Social capital comprises four measurable dimensions, namely participation, reciprocity, trust, and networking, which collectively contribute to its validity (Roxas & Azmat, 2014).

Women farmer groups comprise housewives who are members of a collective engaged in diverse activities, particularly in the agricultural domain. These groups provide numerous opportunities for agricultural endeavors, including counseling, farming practices, and other activities facilitated by local agricultural services and the Ministry of Agriculture. Active participation, coupled with a lack of agricultural knowledge, enables these groups to access information sources more easily and enhance their knowledge through scheduled training sessions (Pratiwi & Baga, 2021). The establishment of Women Farmer Groups (KWT) aims to elevate the well-being of farming families by empowering women as key catalysts (Camalin & Setiawan, 2019). Women play a crucial role in household affairs and contribute significantly to family welfare and societal development. It is crucial to support women by providing beneficial activities through farmer women's groups. This approach ensures that women are not merely perceived as burdens within family life but are also capable of making valuable contributions to their families and the surrounding communities (Fatmawati et al., 2022).

KWT's growth and development encompass various regions, including the Wonosobo District area. Among the active KWTs in Wonosobo District, KWT Legowo stands out. The group's notable initiative is the implementation of the Sustainable Food Home Area program. KWT Legowo's activities have progressed well, necessitating social capital among its members to uphold unity and achieve collective objectives. This is

achieved through yard optimization, which involves cultivating vegetables, food crops, fruits, family medicinal plants (TOGA), animal husbandry, and fisheries. Such activities encourage each household member to maximize their yard's potential, resulting in the production of healthy food to meet their family's nutritional requirements and augment family income through yard farming. With the aforementioned context, this study encompasses three primary objectives. Firstly, it aims to ascertain the extent of income contributed by KWT Legowo members. Secondly, it seeks to evaluate the state of social capital (including participation, reciprocity, trust, and networking) within KWT Legowo. Finally, it endeavors to analyze the relationship between social capital (participation, reciprocity, trust, and networking) and the income earned by KWT Legowo members.

METHODOLOGY

The research methodology employed in this study is the survey method, which aims to provide an accurate representation of the research area. The study was conducted at KWT Legowo, located in Kemranggen Hamlet, Wulungsari Village, Selomerto Subdistrict, Wonosobo District, in the Central Java Province. The selection of this research site was deliberate, based on a recommendation from the Selomerto Subdistrict BPK (Regional Development Planning Board). The choice was influenced by KWT Legowo's status as a pilot group and their achievement of securing second place in the Adhikarya Pangan Nusantara competition at the Central Java Province level in 2015.

During the initial observations conducted at KWT Legowo, it was determined that the total membership comprised 32 individuals. As a result, all members were included as the sample population in this study, leading to a census approach. In addressing the first research objective, the Likert's summated ratings method is employed to assess the social capital (participation, reciprocity, trust, and cooperation network) possessed by members of the women farming group. Prior to utilizing this method, validity and reliability tests are conducted to ensure the accuracy and consistency of the questionnaires or data collection instruments. Upon obtaining favorable results from these tests, the data analysis stage can proceed.

This method involves presenting respondents with statements to which they express their level of agreement or disagreement. The responses are categorized into four options: strongly disagree (SD), disagree (D), agree (A), and strongly agree (SA). The determination of social capital is determined by calculating the average total score across all indicators, with the response criteria presented in Figure 1.

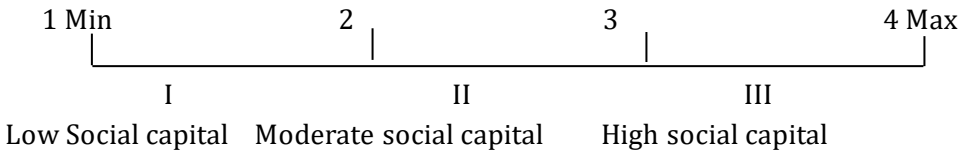

Figure 1. The indicators of social capital.

The third research objective is addressed through the utilization of product moment correlation analysis. This analysis is employed to ascertain the existence of a relationship between variable X (participation, reciprocity, trust, and cooperation network) and variable Y (member income), with both variables having interval or ratio data. The calculation of the correlation coefficient is conducted using the product moment formula, as follows (Cohen, Manion, & Morrison, 2005):

$$r = \frac{n\,XY-(X)(Y)}{n\,X^2-(X)^2\;n\,Y^2-(Y)^2} \ldots\ldots\ldots\ldots (1)$$

Information:
r = product moment correlation coefficient
X= statement score for each item
n= number of sample members
Y= total score

The correlation coefficient value indicates the degree of closeness in the relationship between the variables under investigation. The product moment correlation coefficient is categorized into several criteria, as presented in Table 4 (Burns, 2000).

Table 1. The criteria for interpreting the product moment correlation scores.

Score	Criteria
0.000 – 0.199	Very low
0.200 – 0.399	Low
0.400 – 0.599	Moderate Strong
0.600 – 0.799	Strong
0.800 – 1.000	Very Strong

Source: Burns (2000)

Information:

Position I	=	the social capital possessed by members of the women farming group is at a low level
Position II	=	the social capital possessed by members of the women's group is at a moderate level
Position III	=	the social capital possessed by members of the women farming group is at a high level

RESULT AND DISCUSSION

1. The Characteristic of KWT Legowo Farming

Characteristics refer to the attributes, properties, and features that are associated with an object or entity, providing a comprehensive description (Nosratabadi et al., 2020). In this study, the characteristics examined include the type of business cultivated and the size of the yards owned by members of KWT Legowo. The cultivated commodities encompass a range of items such as food crops, vegetables, fruits, family medicinal plants (TOGA), animal husbandry, and fisheries. The determination of these commodities results from discussions among the members, group administrators, and agricultural extension officers (PPL), taking into consideration both the household food requirements and consumer demand. The specific food crops cultivated by the members in their respective home gardens are detailed in Table 1.

Table 2. Various types of food plants cultivated by members of KWT Legowo

Agriculture Sector	Commodity	Number of Cultivator's households (person)	Households sample	Percentage (%)
Crops	Corn	4	32	6.67
	Peanuts	12	32	33.34
	Cassava	4	32	6.67

Table 2 illustrates that peanuts are the most extensively cultivated food plant by KWT Legowo members, primarily due to their suitability for cultivation in polybags. On the other hand, crops such as corn and cassava demand larger land areas and cannot be cultivated in polybags, resulting in only a few members engaging in their cultivation. Table 3 presents the types of vegetable plants cultivated by the members.

Table 3. Various types of vegetables cultivated by members of KWT Legowo

No	Agriculture Sector	Commodity	Number of Cultivator's households (person)	Households sample	Percentage (%)
1	Vegetable	Leek	30	32	93
2		Chili	28	32	86
3		Tomato	28	32	86
4		Chives	28	32	86
5		Celery	25	32	76
6		Eggplant	24	32	73
7		Cabbage	23	32	70
8		Lettuce	15	32	43
9		Mustard	12	32	33
10		Spinach	12	32	33
11		Red onion	12	32	33
12		Mustard greens	11	32	30
13		Spinach	10	32	26
14		Carrot	10	32	26
15		Broccoli	6	32	13
16		Cauliflower	5	32	10
17		Oyong (Luffa)	3	32	3
18		Radishes	3	32	3
19		Chinese mustard	3	32	3

Table 3 showcases the seven primary types of vegetables cultivated by the majority of KWT Legowo members, namely leek, chives, chili peppers, tomatoes, eggplants, celery, and cabbage. These vegetables are grown extensively to fulfill the members' regular consumption needs and to cater to requests from intermediaries. Additionally, twelve other types of vegetables, including spinach, shallots, mustard greens, lettuce, mustard greens, kale, carrots, broccoli, cauliflower, squash, red radish, and Chinese mustard, are cultivated to meet consumer demand. The sale of vegetables occurs in two forms: fresh produce and polybags. The price of the vegetables varies,

depending on the prevailing market rates. For polybag sales, which involve ready-to-harvest vegetables, the prices range from IDR 9,000 to IDR 10,000, based on the purchasing power of the consumers.
Table 4 provides an overview of the types of fruits planted by the members.

Table 4. Various types of fruits cultivated by members of KWT Legowo

Agriculture Sector	Commodity	Number of Cultivator's households (person)	Households sample	Percentage (%)
Fruits	Pineapple	31	32	97
	Guava	19	32	56
	Papaya	14	32	40
	Banana	16	32	46
	strawberry	20	32	60

Table 4 displays the predominant fruit variety cultivated by KWT Legowo members, which is pineapple. Members choose to cultivate pineapples due to their high economic value, ease of cultivation, and suitability for dry land conditions, requiring less water and less intensive watering (Soedarya, 2009). During the harvest season, members sell pineapples at a price of IDR 11,000 per fruit, guavas at IDR 7,000 per kilogram, papayas at IDR 7,000 per fruit, and bananas at an average price of IDR 68,000.00 per bunch. The types of family medicinal plants cultivated are presented in Table 5.

Table 5. Various types of family medicinal plants (TOGA) cultivated by the members of KWT Legowo

Agriculture Sector	Commodity	Number of Cultivator's households (person)	Households sample	Percentage (%)
Family medicinal plants	Turmeric	28	32	86
	Ginger	27	32	83
	Purwoceng	18	32	53

Table 5 displays the cultivated types of family medicinal plants (TOGA), which include turmeric, ginger, and purwoceng. The decision to cultivate turmeric is driven by the demand for Wonosobo's specialty food seasoning, specifically kemul tempeh. Ginger cultivation aims to meet the demand from middlemen. The selection of purwoceng is aimed at introducing and cultivating unique upland plants known for their efficacy and high market value. The income from the sale of these medicinal plants varies depending on the market prices. Purwoceng is sold in polybags with a price range of IDR 11,000 to IDR 14,000. Furthermore, Table 6 highlights additional yard optimization activities, such as fishing.

Table 6. Various types of fisheries cultivated by members of KWT Legowo

Agriculture Sector	Commodity	Number of Cultivator's households (person)	Households sample	Percentage (%)
Fisheries	Catfish	7	32	16.67

	Tilapia	2	32	3.33

Table 6 presents the cultivated fish varieties, specifically catfish and tilapia. During the implementation of these endeavors, certain obstacles arise, specifically the limited availability of water sources, resulting in only 7 individuals being able to engage in fish cultivation, considering the availability of land and sufficient water resources. The selling price for tilapia and catfish is IDR 6,500 per kilogram, and the harvesting period spans from 7 to 8 months. Additionally, Table 7 showcases other yard optimization activities, which encompass the execution of livestock-related endeavors.

Table 7. Various types of fisheries cultivated by members of KWT Legowo

Agriculture Sector	Commodity	Number of Cultivator's households (person)	Households sample	Percentage (%)
Livestock	Chicken	17	32	50,00
	Rabbit	2	32	3,34

Table 7 displays the specific types of livestock being cultivated, namely female native chickens. The members of the group engage in the cultivation of these chickens primarily for their meat, although the possibility of selling them is not disregarded. However, there are obstacles encountered during the implementation of livestock activities. Specifically, the members have been unable to consolidate their respective lands, resulting in only 17 members engaging in cultivation. Furthermore, only one member cultivates rabbits, and the prevailing conditions indicate that the members exhibit limited interest in rabbit farming due to the insufficient space available for rabbit cages and the associated difficulties in their cultivation.

The members of KWT Legowo engage in activities aimed at optimizing their yard's productivity by cultivating a diverse range of commodities. The objective is to increase income through the production of various combinations of commodities by the members. The selection of commodities for cultivation is based on the individual member's capacity to cultivate within their respective yards, taking into consideration the land they own. However, it is noteworthy that despite the increase in the number of cultivated commodity combinations, the income earned by the members of KWT Legowo does not proportionally rise. Other conditions indicate that the growing number of commodity combinations cultivated by the members reflects their active participation in optimizing their home gardens.

Yard land utilized for farming purposes holds greater value compared to idle yard land. By implementing the yard optimization program, it becomes possible to fulfill the nutritional requirements and daily food needs of the manager, while also contributing to an increase in household income. The Kemranggen Hamlet area is characterized by hilly terrain and a relatively sparse distribution of residential houses, resulting in varying yard sizes ranging from 20 m^2 to 120 m^2. The average land area owned by members amounts to 37 m^2. The characteristics of the respondents, based on the size of their respective yards, are presented in Table 8.

Table 8. Characteristics of respondents based on land area

No.	Respondent's land area (m^2)	KWT Legowo	
		Total (person)	Percentage (%)
1	20-44	27	86.67
2	45-69	2	3.33
3	70-94	3	6.67
4	95-120	1	3.33
	Amount	**33**	**100.00**

Table 8 illustrates that the majority of respondents possess yard areas ranging from 20 m^2 to 44 m^2. These cultivated yard areas encompass the front, right, left, and rear sections of the house, which are utilized for farming, fishing, and animal husbandry purposes. Members must take into account the size of their land holdings when engaging in these activities to ensure the cultivation of compatible combinations of commodities.

2. Social Capital of KWT Legowo

The social capital score obtained from the questionnaire is in the form of ordinal data, which requires conversion into interval data to effectively depict the state of social capital, aligning with the second research objective. Assigning scores to each statement necessitates the application of the Method of Successive Intervals (MSI) test. The MSI test is conducted to transform ordinal data into interval data. The results of the MSI test, pertaining to the data, are presented in Table 9.

Table 9. Z-score transformation

Category	Frequency	Proportion	Cumulatif proportion	Z	Interval scale
Strongly disagree	1	0.250	0.250	-0.674	1.000
Disagree	14	0.250	0.500	0.000	1.946
Agree	485	0.250	0.750	0.674	2.596
Strongly agree	700	0.250	1.000		3.542

Table 9 displays the interval and category score limits, which can be referenced in Figure 2. The score of Strongly Disagree (SD) is assigned a value of 1.000, the score of Disagree (D) is assigned a value of 1.946, the score of Agree (A) is assigned a value of 2.596, and the score of Strongly Agree (SA) is assigned a value of 3.542.

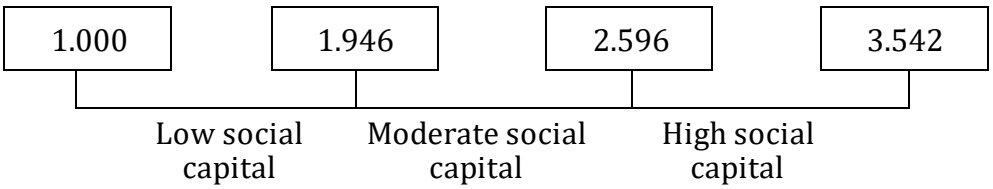

Figure 2. Boundary points between social capital values

Figure 2 indicates that a lower score corresponds to lower social capital possessed by KWT Legowo members, whereas a higher score corresponds to higher social capital. The scoring is based on positive statements, meaning that higher agreement with the given statements reflects stronger social capital and its positive impact on members'

income. Table 10 presents the findings of the assessment on member participation, reciprocity, trust, and networking, reflecting the social capital of KWT Legowo members in Kemranggen Hamlet, Wulungsari Village, Selomerto Subdistrict, Wonosobo District.

Table 10. Social capital variable data

No	Variable	Average total score	Social capital category
1	Participation	3.381	High
2	Reciprocal relationship	3.392	High
3	Trust	3.360	High
4	Networking	3.371	High
	Social capital	**3.376**	**High**

On a continuum, the social capital of KWT Legowo members in Kemranggen Hamlet, Wulungsari Village, Selomerto Subdistrict, Wonosobo District can be described as follows:

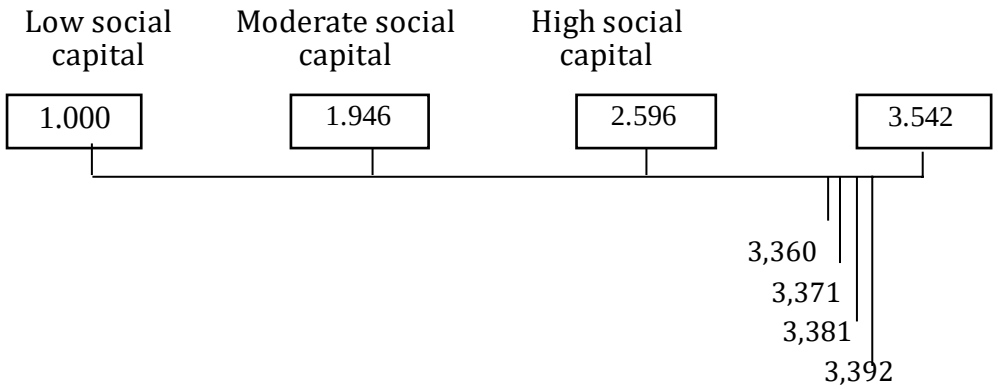

Figure 3. KWT Legowo's social capital

1. Participation of members in KWT Legowo

Member participation is categorized as high (2.596–3.542) with a score of 3.381. The high level of participation among KWT members is evident from the indicators presented in Table 10. Indicator number 1 indicates high participation as members actively attend both regular and ad hoc meetings. Regular meetings are conducted every 35 days, with a maximum frequency of 8 meetings from January to August. During these meetings, members discuss their achievements, challenges faced in agricultural, fishery, and livestock activities, as well as financial reports.

Table 11. KWT member participation indicators

No	Indicator Participation	Average score	Category
1	Participation of members in meetings that can add information to increase revenue	3.411	High
2	Participation in farming, fishing and animal husbandry activities	3.411	High
3	Participation in decision making and/or input or suggestions to accommodate members' aspirations	3.367	High
4	The activity of enjoying the results in the form of selling products	3.333	High

	Average	**3.381**	**High**

Table 11 presents the data on indicator number 1, which pertains to incidental meetings within a flexible timeframe. These meetings are conducted when important information is obtained and require immediate follow-up by KWT Legowo. From January to August, the maximum frequency of incidental meetings is 5. These meetings primarily focus on preparations for participating in environmental competitions, group competitions representing sub-districts or districts, and arrangements for comparative studies with other groups.

Indicator number 2 reflects a high level of member participation. Members engage in planting activities according to the land they own. However, not all members are involved in livestock and fishery activities. This discrepancy arises from limited land and water resources available for fishing activities.

Indicator number 3 demonstrates a high level of member participation, indicating that members actively contribute input and suggestions during meetings through deliberation to reach a consensus. This includes decisions regarding the selling price set when purchasing directly from the members.

Indicator number 4 also shows a high level of member participation, as members enjoy the benefits of selling products at an agreed-upon price. This ensures the continuity and development of activities while increasing the income earned by KWT Legowo members. Participation plays a crucial role in group activities, allowing for increased production from the yard and consequently enhancing the income of the members.

1. Reciprocity

The interrelationships among KWT Legowo members have obtained an average score of 3.392. This score indicates that the reciprocal relationship falls within the high category (2.546-3.542). The high level of reciprocity among KWT members can be observed through the indicators outlined in Table 12.

Table 12. Reciprocal relationship indicator

No	Reciprocal relationship indicator	Score average	Category
1	Members of KWT Legowo demonstrate a high level of reciprocity by contributing their thoughts and energy when other members are in need.	3.367	High
2	A two-way communication channel is established among KWT Legowo members, enabling them to visit each other without any pressure, fostering open and supportive communication.	3.417	High
	Average	**3.392**	**High**

Indicators number 1 and number 2 exhibit a high level of visitation among KWT Legowo members, enabling them to exchange information and support each other in various activities such as planting, fishery, and animal husbandry. Moreover, members assist one another in acquiring production resources such as seeds, fertilizers, and polybags, thereby reducing production costs and enhancing overall income. The findings highlight the significant role of reciprocal relationships in facilitating the progress of KWT Legowo and optimizing the efficiency of production-related endeavors. These reciprocal relationships are vital for fostering interaction, communication, and member cooperation

within the group, thereby ensuring the continuous operation of activities and the successful achievement of group objectives.

2. Trust

The trust exhibited by KWT Legowo members has an average score of 3.252, indicating a high level of trust within the group (2.546-3.542). The high level of trust among KWT members is evident from the indicators outlined in Table 13.

Table 13. Trust indicator

No	Trust indicator	Score average	Category
1	Trust is established among the members of the group	3.371	High
2	Members demonstrate trust in the management of KWT	3.358	High
3	Trust is placed in the government	3.350	High
	Average	**3.360**	**High**

Indicator number 1 reflects a high level of trust among the members, indicating that they believe in each other's commitment to carrying out planned planting, fishing, and animal husbandry activities based on their capabilities. Indicator number 2 also shows a high level of trust, as members benefit from the management's effective cash management, which includes purchasing polybags and seeds, as well as the management's ability to provide marketing solutions. The management collects the produce from planting activities and sells them in the market at a frequency of once per month, thereby minimizing marketing costs. Indicator number 3 demonstrates the members' trust in the government's support. Although the implementation of certain initiatives, such as securing water resources for fishing activities, is pending, members trust that the government will provide counseling, guidance, and assistance to increase their income. Trust is a crucial attitude for fostering strong relationships within the group. The members' trust in one another is instrumental in achieving the planned activities successfully. Sustaining this trust is essential for the advancement of the group.

3. Networking

Network cooperation refers to the collective ability of group members to actively engage and contribute towards building social capital. The cooperation network of KWT Legowo members has been assessed with an average score of 3.371, indicating a high level of cooperation within the group. This score falls within the high category range of 2.546 – 3.542. The high level of cooperation among KWT members can be observed through the indicators presented in Table 14.

Table 14. cooperation network indicators

No	Trust indicator	Score average	Category
1	Cooperation between members	3.353	High
2	Collaboration between groups with other parties	3.389	High
	Average	**3.371**	**High**

Indicator number 1 demonstrates the implementation of cooperation within the group, resulting in increased production yields through organic-based planting activities that have a strong market demand. Additionally, members collaborate to fulfill the water

requirements for fish pond cultivation in their fishery activities. This mutual cooperation among members ensures the availability of sufficient water resources for aquaculture.

Indicator number 2 reflects a high level of cooperation due to the establishment of collaborations with community leaders and governmental entities such as the village government, Agricultural Extension Officers (PPL), and the Agriculture Service. These collaborations are driven by a shared objective of generating benefits for the members. By expanding the network of cooperation, it is expected that members' income can be further enhanced.

The established cooperation networks encompass various stakeholders such as vegetable middlemen, chives, leek, shallots, organic vegetable traders, and fish traders in the local market, specifically Pasar Kertek. These collaborations are built upon a sense of responsibility towards the products produced, ensuring the sustained income for the members. The aim of these collaborations is to foster group activities that can effectively boost income. By engaging in mutually beneficial collaborations with middlemen, the Agriculture Service, and the village government, members can establish a robust cooperation network that facilitates the marketing of their yard's produce and contributes to income augmentation.

3. The Relationship of Social Capital to the Income of KWT Legowo Members

The association between social capital and the income of KWT Legowo members is assessed using Product Moment correlation analysis at a 95 percent confidence level. The strength of the relationship is indicated by the correlation coefficient value obtained from the test results. To determine the significance of the relationship between the variables under investigation, a significance test is conducted.

The variables examined in relation to the income of KWT Legowo members are social capital, which comprises participation, reciprocity, trust, and networking. The findings of the Product Moment correlation test are elucidated as follows:

1. The relationship between participation and income of KWT Legowo members

Participation encompasses the capacity of group members to unite themselves in a relational framework that influences the strength of social capital within the group. Member participation is closely intertwined with the successful attainment of jointly planned and evaluated activities. Consequently, it indirectly impacts the members' engagement in planting endeavors involving vegetables, fruits, food crops, livestock, and fisheries, which in turn can augment their income levels. The findings of the correlation analysis, which examined the relationship between participation and member income, are presented in Table 15.

Table 15. Relationship between participation and income of KWT Legowo members

Social Capital Variables	Correlation Coefficient	Significance (2-tailed)	Information
Participation	0.361	0.048	Significant

Table 15 presents the results of the product moment analysis, indicating a significance value of 0.048, which is smaller than the predetermined alpha level ($\alpha<0.05$), and a t-value greater than the t-table (2.043>2.042). Consequently, the null hypothesis (H_0) is rejected while the alternative hypothesis (H_a) is accepted, signifying a significant relationship between member participation and income. The correlation coefficient of 0.361 reflects a weak positive association, indicating a unidirectional relationship between participation and member income. Hence, a higher level of member

participation in planting, fishing, and animal husbandry activities is correlated with increased income.

Member participation in the group plays a crucial role in fulfilling the nutritional requirements of their families and ensuring food security through various activities such as planting, fishing, and animal husbandry. However, due to variations in land ownership among members, not all individuals are able to fully engage in all planned activities. Consequently, the level of participation in optimizing individual yards on their own land remains relatively low, with activities primarily focused on meeting the family's food needs rather than commercial endeavors. As a result, the income derived from optimizing their yards remains modest. While the primary benefit of member participation in group activities lies in generating income, there are additional advantages that members gain, such as fulfilling social needs and achieving self-actualization within the group.

2. Reciprocal relationship with the income of Legowo KWT members

The inclination to engage in acts of kindness and reciprocity among group members is strongly correlated, making it easier to foster a sense of unity and work towards achieving shared group objectives. The correlation analysis results, indicating the relationship between reciprocity and members' income, are presented in Table 16.

Table 16. Reciprocal relationship to the income of KWT Legowo members

Social Capital Variables	Correlation Coefficient	Significance (2-tailed)	Information
Reciprocal	0.464	0.010	Significant

Table 16 presents the results of the Product Moment analysis, which yielded a significant value of 0.010 < α (0.05), with a t-value > t-table (2.615 > 2.042). This indicates the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a), suggesting a significant relationship between the reciprocal relationship and income. The correlation coefficient of 0.464 indicates a moderately strong and positive relationship, signifying a unidirectional association between the reciprocal relationship and member income. This implies that higher levels of reciprocal relationships among members in carrying out planting, fishing, and animal husbandry activities will lead to increased income, and vice versa.

The reciprocal relationships established by the members obtained the highest value compared to other variables. This is evident in the mutual cooperation between members, as demonstrated by knowledge sharing to enhance planting, fishing, and animal husbandry activities, as well as the exchange of seeds, which helps reduce production costs. The reciprocal relationships among members with relatively higher incomes are reflected in the field, where members engage in acts of kindness by sharing information on cultivation activities in their respective yards and exchanging seeds and fertilizers. These activities contribute to reducing production costs and ultimately lead to an increase in the income earned by the members.

3. Relationship of trust with the income of KWT Legowo members

Table 17 displays the outcomes of the correlation analysis, indicating the relationship between trust and members' income. Trust is a fundamental mindset of mutual reliance within a community, enabling individuals to unite with members of other groups and enhance the overall value of social capital. Possessing a trust-oriented attitude within a group facilitates the establishment and sustainability of collective efforts aimed at achieving shared objectives, particularly the augmentation of member income. The

analysis reveals the correlation test results, as presented in Table 17, showcasing the association between trust and members' income.

Table 17. The value of the relationship of trust to members' income

Social Capital Variables	Correlation Coefficient	Significance (2-tailed)	Information
Trust	0.365	0.043	Significant

Table 17 displays the results of the product moment analysis, indicating the relationship between trust and members' income. The analysis yielded a significance value of 0.043, which is less than the predetermined significance level (α) of 0.05. Additionally, the calculated t-count exceeds the t-table, with 2.074 being greater than 2.042. These findings lead to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a), signifying that there is a significant relationship between member trust and income. The correlation coefficient of 0.365 indicates a relatively low level of closeness in the relationship, but it carries a positive value, indicating a unidirectional association between trust and members' income. In other words, as member trust in engaging in planting, fishing, and animal husbandry activities increases, their income is likely to increase as well, and vice versa.

The research findings regarding trust and the income of KWT Legowo members reveal a relatively low relationship. This is evident from the limited contribution of income obtained by members, which remains relatively small. The underlying reason for this is the suboptimal conditions experienced by members when carrying out activities to maximize their yards. Furthermore, the trust attitude of members towards the management is influenced by the performance of the management itself. In addition, members' trust in the government is also relatively low, as they perceive that the government has not adequately addressed the challenges faced by the members.

The trust exhibited by KWT Legowo members towards each other, administrators, the government, and the Department of Agriculture serves as a strong foundation for sustaining group activities. However, despite the trust established among members, it has not significantly contributed to the increase in member income. To enhance trust, KWT Legowo members would require concrete examples from other members who have successfully increased their income through yard optimization activities. Unfortunately, in the current context, there are no members who serve as real examples or pioneers, apart from the management itself. Therefore, fostering an attitude of trust is crucial in motivating members to collaborate with one another in the pursuit of group objectives.

4. The relationship between the cooperation network and the income of KWT Legowo members

Table 18 displays the findings of the correlation analysis conducted to examine the relationship between the cooperation network and member income. Collaborative networks represent the innovative and dynamic thinking of KWT members, fueled by curiosity and a drive for progress. These networks enable members to actively seek opportunities for growth and development while establishing social connections with other groups or organizations that can benefit both individually and as a group. Through effective collaboration, the aim is to mitigate challenges encountered by members and ultimately enhance their income.

Table 18. The value of the cooperation network relationship to members' income

Social Capital Variables	Correlation Coefficient	Significance (2-tailed)	Information
Networking	0.372	0.033	Significant

Table 18 presents the findings of the product moment analysis, revealing the significance of the cooperation network in relation to member opinions. The obtained significance value of 0.043 is smaller than the predetermined significance level of α (0.05), and the calculated t-value exceeds the t-table (2.120 > 2.042). Consequently, the null hypothesis (H_0) is rejected in favor of the alternative hypothesis (H_a), indicating a significant relationship between the cooperation network of members and their income. The correlation coefficient of 0.372 suggests a relatively weak but positive association between the cooperative network and members' income. This implies that a higher degree of collaboration among members in carrying out planting, fishing, and animal husbandry activities can contribute to an increase in income, or vice versa.

The correlation between the cooperation network and the income of KWT Legowo members is relatively weak. This can be attributed to the suboptimal utilization of cooperation established with middlemen by all members, as well as the underutilization of the cooperation network formed between community leaders, government entities, and relevant agencies. Consequently, there is a hindrance in accessing information related to yard optimization activities and a lack of market guarantees for the members.

The existing market guarantees, such as middlemen for chives, leek, cabbage, and fish traders, have not been fully utilized by all members. Considering the relatively small contribution of members' income from their yards, it indicates that members primarily engage in yard optimization activities to meet their family's food needs. Any surplus produce is sold in the market when prices are favorable, which can potentially increase their income.

Cooperation holds a significant place in social life (Bano, Cisheng, Khan, & Khan, 2019). It is a crucial determinant of high social capital within groups (Jia, Chowdhury, Prayag, & Chowdhury, 2020). Therefore, fostering and nurturing cooperation within the group is vital for supporting various activities undertaken by members of the female farmer group, including income generation efforts (Mahfud, Triyono, Sudira, & Mulyani, 2020). The research results on the relationship between social capital and the income of KWT Legowo members in implementing the KRPL program collectively indicate a significant association. Social capital plays a pivotal role in motivating members to collaborate towards achieving shared goals, thereby impacting group activities and addressing family food needs (Carmen et al., 2022). The presence of high social capital coupled with a modest income contribution from the KRPL program demonstrates that members' participation in the group is not solely driven by profit-oriented motives.

CONCLUSION

The Legowo women farmer group, comprising a total of 30 members, is actively implementing a sustainable food home area program initiated by the Department of Agriculture and Food Crops of Wonosobo District. This program focuses on maximizing yard areas through the cultivation of various crops, including food crops (3 types), vegetables (19 types), fruits (5 types), family medicinal plants (3 types), fisheries (tilapia and catfish), and animal husbandry (chickens and rabbits). On average, each member's

yard measures 37 m2. The social capital within KWT Legowo, encompassing participation, reciprocity, trust, and cooperation networks, is in a favorable state, with a high average score. Notably, social capital exhibits a significant relationship with the income generated by KWT Legowo members. While participation, trust, and network cooperation display a weak correlation, the reciprocal relationships demonstrate a relatively strong association with the income of KWT Legowo members. Given the already satisfactory state of social capital, it is crucial to maintain support and guidance from Field Agricultural Extension (PPL) and other relevant agencies. This will assist members in optimizing their yards and selecting plant species with high market value, thereby increasing their income.

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CONFLICT OF INTEREST

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