

## THE ROLE OF THE FARMER WOMEN'S GROUP (KWT) IN INCREASING THE INCOME OF FARMER FAMILIES IN SRAGEN REGENCY

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### ABSTRACT

Data analysis to determine the effect of the role of KWT on the family income of farm women is to perform a simple linear regression analysis. Based on the results of the regression test, it is known that the calculated t value on the effect of the role of KWT on the income of farm women's families results is a significant influence between the role of KWT and the income of farmer women's families. The average income of farm women in managing farming activities is Rp 729,200, the income is used to help meet the needs of the family. Based on the results of interviews with farmer women, the income of farmer women from the KWT business unit and their own business is used for school fees, buying daily food needs and social community needs such as social gatherings, garbage dues, and others. The role of farmer women's groups in increasing the income of farm women's families is shown from the many types of businesses run by farm women. The average group of peasant women in Sragen Regency has a business unit as a source of business income. These business units include herbal medicine agribusiness units ranging from cultivation to marketing of herbal products, hydroponic agribusiness, and other business units.

### KEYWORDS

KWT, Farmer Woman's, Family Income, Sragen



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## INTRODUCTION

Farmer groups are an institutional form of agricultural activities, which have an important role in strengthening farmer institutions in Indonesia. A farmer group is an organization consisting of a group of farmers or individuals who have a common goal to increase agricultural production, improve access to agricultural resources and information, and improve the welfare of its members. Farmer groups can be formal or informal organizations that focus on various aspects of agriculture, such as crop production, animal husbandry, processing of agricultural products, marketing of agricultural products, and development of agricultural techniques. The form of farmer groups that empower women

in agriculture and rural areas and increase the participation and contribution of women in agricultural development and society as a whole is called the Farmer Women's Group or abbreviated as (KWT). KWT has a more specific focus on the needs and problems faced by women in agricultural and rural contexts. They work together to address challenges such as limited access to resources, education, training, and economic opportunities.

KWT has several programs that focus on empowering farm women. According to Hilmayatun (2021), the form of KWT empowerment in family welfare through two empowerment programs, namely the sustainable food program and native chicken livestock, there are various activities in this empowerment such as counseling, training, breeding and planting, and maintenance training. The existence of KWT provides benefits for farm women in improving family welfare, especially in the economic sector, with the fulfillment of family needs due to additional income and KWT members gain knowledge in farming. The role of KWT in relation to agricultural activities in Sragen Regency is very high. According to data from the Central Statistics Agency (2023), the female workforce aged 15 years and over working in the agricultural sector is 55,213 or as much as 36.39% of the total workforce. This indicates that there are still many women farmers who contribute to the agricultural sector. Many of these peasant women are members of KWT in managing their farming activities. The role of KWT in the development of women farming activities includes cassava farming (Sarno, 2020). Cassava farming activities are very helpful in meeting the family needs of members of the Village farmer women's group.

The role of KWT in Sragen Regency is not only as a means of learning in the management of farmland, but also as a contributor to the income of peasant women's families. Farmer women who own their own land cooperate with KWT in terms of providing raw materials for processed products. These raw materials are fresh products of herbal plants such as ginger, lemon, turmeric, kencur, herbal leaves, telang flowers, and many others. Then by KWT processed into processed herbal tea products that are ready to brew. This collaboration is one example of farmer women's efforts in increasing family income through farming activities in collaboration with KWT. For peasant women who do not own land, they join KWT as a workforce. For example, KWT itself owns land that is cultivated together, and female farmer members cultivate the land and contribute to post-harvest activities and processing of herbal products.

The model of cooperation between peasant women and KWT in Sragen District varies according to the policy of KWT. This shows that the potential for agricultural business development is still very high to be developed. According to data from the Central Statistics Agency (2023), the production of horticultural commodities in Sragen Regency in 2022 is still quite high, including large chili production of 31,207 quintals, shallots 20,655 quintals, melons 6,966 quintals, ginger 12,846 kg, kencur 25,178 kg, turmeric 6,099 kg, and many other biopharmaceutical crop production. The cooperation between KWT and peasant women shows the efforts of both parties to improve the family economy. The purpose of this study is to analyze the role of KWT in relation to increasing the income of farming families, considering that in Sragen Regency many peasant women are trying to help increase family income by joining KWT. It is hoped that this research can be useful for the development of KWT and the establishment of business models in order to empower farm women to be productive and contribute to increasing family income.

## **RESEARCH METHOD**

This research was conducted from June to July 2023 in Sragen Regency by taking a sample of 50 female farmer respondents who are members of KWT. The selection of farmer women respondents used a simple random sampling method from members of KWT

Tani Mulyo and KWT Sari Rejeki. The consideration of choosing respondents from the KWT members is that the highest number of peasant women in Sragen Regency are in Sambungmacan District and Kedawung District. KWT Tani Mulyo is located in the working area of Sambungmacan District and KWT sari rejeki in Kedawung District. The data used in this study are primary data, obtained through interview activities using question instruments.

The data obtained through interviews are quantitative data in the form of family income data of peasant women members of KWT, and qualitative data to measure the role of KWT, which is as many as 20 questions. Qualitative data instruments are tested for accuracy and consistency using validity tests and reliability tests using SPSS Version 22. Data analysis to determine the effect of the role of KWT on the family income of farm women is to conduct a simple linear regression test, with the following equation model:

$$Y = a + b X + \epsilon$$

Equation Description:

- Y : Family Income of Farmer Women (Rp)
- a : Constant
- b : KWT Role Variable Coefficient
- X : The role of KWT
- $\epsilon$  : Error rate

The effect of the role of KWT on the income of farming families was tested using the t test on the results of a simple regression analysis. The hypotheses compiled in this study are as follows:

H0 : The role of KWT does not affect the family income of peasant women  
Significant

Ha : The role of KWT significantly affects the family income of peasant women.

The t-test was conducted to test the research hypothesis regarding the effect of the role of KWT on the family income of peasant women. Decision making is done by looking at the significance value in the Coefficients table. Usually, the basis for testing regression results is carried out with a confidence level of 95% or with a significant level of 5% ( $\alpha = 0.05$ ). The criteria of the statistical test t (Ghozali, 2016):

1. If the significance value of the t-test  $> 0.05$  then H<sub>0</sub> is accepted and H<sub>a</sub> is rejected. This means that there is no significant influence between the role of KWT on the income of peasant women's families.
2. If the significance value of the t-test  $< 0.05$  then H<sub>0</sub> is rejected and H<sub>a</sub> is accepted. This means that there is a significant influence between the role of KWT on the income of peasant women's families.

## **RESULT AND DISCUSSION**

### **Characteristics of Respondents**

Characteristics of respondents are important to be studied with the aim of seeing data variations and uniqueness, as well as behavior that exists in respondents. Table 1 shows the characteristics of 2023 female farmer respondents in Sragen District, including age, gender, education level, and length of time as a member of KWT.

Table 1. Characteristics of Women Farmer Respondents in 2023 in Sragen Regency

| No. | Characteristics of Respondent | Number of Farmer | Percentage (%) |
|-----|-------------------------------|------------------|----------------|
| 1.  | Age                           |                  |                |
|     | 20-54 Years                   | 39               | 78             |

|    |                                    |    |    |
|----|------------------------------------|----|----|
|    | ≥ 55 Years                         | 11 | 22 |
| 2. | Education Level                    |    |    |
|    | No Education                       | 5  | 10 |
|    | Elementary                         | 10 | 20 |
|    | Junior High School                 | 17 | 34 |
|    | High School                        | 14 | 28 |
|    | Diploma III                        | 1  | 2  |
|    | Undergraduate                      | 3  | 6  |
| 3. | Years of Member KWT                |    |    |
|    | 1-5 years                          | 28 | 56 |
|    | 6-10 years                         | 7  | 14 |
|    | >11 years                          | 15 | 30 |
| 4. | Reasons join to KWT                |    |    |
|    | Increase Experience and Competence | 23 | 46 |
|    | Want to Increase Revenue           | 5  | 10 |
|    | Filling Free Time                  | 8  | 16 |
|    | Want to Advance KWT and Village    | 14 | 28 |

Source: Processed Primary Data, 2023

One demographic factor that is often used in research is the characteristics of respondents based on age or age. It is used to understand differences, behavior patterns, preferences, and views based on different life stages. Table 1 shows that 78% of female farmer respondents are of productive age, indicating that they chose to join KWT to help their families and improve their skills and experience (Susanti & Iskandar, 2023). The number of peasant women respondents receiving formal education is on average low from junior high school to high school, with percentages of 34% and 28% respectively. This suggests that formal education levels are still low, and formal education levels can have a major impact on how they manage farmland, make decisions, and use better farming methods. (Nuryana et al., 2022).

In Sragen District, the length of time farmer women have been members of KWT is on average 1 to 5 years, or 56%, which shows significant performance as an institution that helps farm women. According to Anindita et al., (Anindita, Mardiningsih, & Dalmyyatun, 2019) Group members have experience due to being members of KWT for a long time. Experience and interaction with the environment can shape each member's character to help them reach their potential. Based on table 1, the reason for joining KWT is to increase knowledge, experience and competence in agriculture as 23% of respondents answered. This indicates that more and more farm women are aware of the importance of agricultural knowledge and innovation in managing farms. Respondents who answered to advance KWT and villages through KWT as much as 14%. The role of KWT is not only to improve the knowledge and competence of its members, but to have an impact on the progress of the village, such as the formation of tourism villages. According to Vera (2019), peasant women have a role in creating agrotourism resources and using social media to promote.

Developing resources through processed agricultural products and massively promoting tourism villages and these products through social media. Meanwhile, according to Fitriawati (2022), the role of KWT in promoting agricultural development is by distributing seeds and building community participatory by sensitizing the community.

### **Test Validity and Reliability on KWT Role Question Instrument**

Qualitative method using question instrument related to the role of KWT in increasing the income of families or farming families. Instrument questions or questionnaires in the form of six questions asked to members of farmer groups. The results

of the validity and reliability tests on the KWT role question instrument are presented in Table 2.

Table 2. Validity and Reliability Test Results on the KWT Role Question Instrument

| Question Item    | r calculate |
|------------------|-------------|
| Question Item 1  | .422        |
| Question Item 2  | .408        |
| Question Item 3  | .448        |
| Question Item 4  | .501        |
| Question Item 5  | .424        |
| Question Item 6  | .779        |
| Question Item 7  | .765        |
| Question Item 8  | .897        |
| Question Item 9  | .609        |
| Question Item 10 | .654        |
| Question Item 11 | .498        |
| Question Item 12 | .543        |
| Question Item 13 | .461        |
| Question Item 14 | .723        |
| Question Item 15 | .654        |
| Question Item 16 | .513        |
| Question Item 17 | .802        |
| Question Item 18 | .760        |
| Question Item 19 | .456        |
| Question Item 20 | .489        |

Source: Processed Primary Data, 2023

Validity tests are used to find out how accurate the data used is. The validity test is declared valid if  $r$  counts  $>$   $r$  table (Puspasari & Puspita, 2022). In this study the  $r$  count used was 0.444. In the validity test of the KWT role question instrument, 16 questions were obtained from 20 existing questions. The output results of the validity test can be seen in table 2, in the  $r$  section calculate. For example, in question item 8 which has a calculated  $r$  value of 0.897, it is valid because the calculated  $r$  value  $>$  0.444. As for question item 1 which has a calculated  $r$  value of 0.422, it is declared invalid because the calculated  $r$  value  $<$  0.444. After going through the validity test, valid question items must be tested again with a reliability test.

Reliability tests are used to measure the level of accuracy of the data used. To find out the reliability data or not, the value of *Cronbach's alpha*  $>$  0.6 (Mukhlis, 2019). This reliability test uses question items that have been declared valid, namely 16 question items. The results of the reliability test output on the KWT role question instrument can be seen in table 3.

Table 3. Validity and Reliability Test Results on the KWT Role Question Instrument

| Reliability Statistics |            |
|------------------------|------------|
| Cronbach's Alpha       | N of Items |
| .714                   | 16         |

Source: Processed Primary Data, 2023

The results of the table 3 reliability test show a *cronbach's alpha* result of 0.714. These results show that the KWT role question instrument is reliable. Because *Cronbach's alpha* has a value of  $0.714 > 0.6$ , this study is very accurate. This shows that the instrument of questions about the role of KWT on learning facilities, cooperation facilities, and production units is very consistent.

### The Role of KWT in Increasing Family Income of Farmer Women

The peasant women's group (KWT) in Sragen Regency is one of the women's organizations that has a role in improving the standard of living income of the community. This role is through KWT activities such as training, mentoring, and counseling to farmer women to have competence in managing their farms. The role of KWT in increasing the income of peasant women's families was tested through simple linear regression analysis. The test results with such are presented in Table 4.

Table 4. Results of Linear Regression Test The Effect of the Role of KWT on Family Income

| Variabel  | B       | Std. Error | t      | Sig. (2-tailed) |
|-----------|---------|------------|--------|-----------------|
| Constant  | -911500 | 163898.581 | -5.561 | 0.00            |
| Peran KWT | 911500  | 88886.485  | 10.255 | 0.00            |

r Correlation = .829, r Square = .687, Adjusted R Square= .680  
F = 105.158, Sig =.000

Source: Processed Primary Data, 2023

Based on the results of the regression test, it is known that the calculated t value on the effect of the role of KWT on the income of farm women's families results in a significance of 0.000, which means that there is a significant influence between the role of KWT and the income of farmer women's families. So the conclusion of hypothesis testing is that  $H_0$  is rejected, and  $H_a$  is accepted. The r value or correlation of 0.829 shows a strong relationship between the role of KWT and the increase in family income of peasant women. While the r square value of 0.687 shows that the effect of the role of KWT on increasing the family income of farm women by 68.7%, the remaining 31.3% is another variable that is not included in the regression model. Other variables such as farm expenses, family expenses, and the type of farm managed by farm women.

The role of farmer women's groups in increasing the income of farm women's families is shown from the many types of businesses run by farm women. At the beginning of membership, peasant women only participated in group activities, such as training and group business activities. The average group of peasant women in Sragen Regency has a business unit as a source of business income. These business units include herbal medicine agribusiness units ranging from cultivation to marketing of herbal products, hydroponic agribusiness units, and other business units or home industries. In addition to business units, there are farmer women's group programs that produce or contribute to the income of farmer women in Sragen Regency. Like the KRPL (Sustainable Food House Area) program, based on the results of interviews with farmer women, the existence of the program is that vegetable cultivation activities can support family food availability, even garden products are traded commercially. The planting of vegetables in the yard will reduce the expenses of farming women's families for vegetable purchases (Khairina, 2021).

According to Tobing (2018) before the KRPL member program, women's groups only earned a small amount of income from their yards. Some of the peasant women's groups have planted in their yards, but not entirely because of unproductive land. Once the KRPL program starts, the land becomes more productive and respondent members can sell and consume the produce. To increase family income by utilizing yard land, farmer

women's groups have enormous potential. In addition to meeting the needs of the family, they can also contribute income to the family (Fardhilah et al., 2022).

Farmer women gain experience, knowledge, and competence from various activities carried out by their groups and business units. These experiences, knowledge, and competencies are used in managing their independent businesses. As after receiving training on the cultivation of herbal medicines in the group, several farmer women in KWT Tani Mulyo, Sambungmacan District, Sragen Regency applied this knowledge to manage their land. Another training that supports the increase in income of farmer women is training related to the use of digital social media as a strategy to promote their products. Group members apply the knowledge gained in the training by promoting herbal products through e-commerce such as shopee, lazada, and tokopedia.

Based on the results of research the average income of farm women in managing agricultural activities is Rp 729,200, the income is used to help meet family needs. Based on the results of interviews with farmer women, the income of farmer women from the KWT business unit and their own business is used for school fees, buying daily food needs and social community needs such as social gatherings, garbage dues, and others. According to Pratiwi & Baga (2022), farmers contribute 24% to family income, which is still included in the low category, but greater than the contribution of farm women in other developing countries such as India. This shows the significant role of peasant women's groups in increasing the income of peasant women. Peasant women play a very important role in contributing to the family, not only as a support but also as the backbone of the family in meeting the family's economic needs and fulfilling her responsibilities as a family mother. This condition encourages peasant women to play an active role and have courage, independence, and self-reliance in an effort to help their husbands improve their quality of life (Erwinawati et al., 2015). The role of KWT in Sragen Regency is quite high in increasing the income of farmer women's families, as evidenced by KWT's involvement in encouraging farmer women to have innovation in managing their businesses. It is expected that related parties such as the Department of Food Security, Agriculture and Fisheries of Sragen Regency will regularly provide training to KWT who support their farm management.

## **CONCLUSION**

Based on the results of the regression test, it is known that the calculated t value on the effect of the role of KWT on the income of farm women's families results in a significance of 0.000, which means that there is a significant influence between the role of KWT and the income of farmer women's families. The r value or correlation of 0.829 shows a strong relationship between the role of KWT and the increase in family income of peasant women. The average income of farm women in managing agricultural activities is Rp 729,200, the income is used to help meet the needs of the family. Based on the results of interviews with farmer women, the income of farmer women from the KWT business unit and their own business is used for school fees, buying daily food needs and social community needs such as social gatherings, garbage dues, and others. The role of farmer women's groups in increasing the income of farm women's families is shown from the many types of businesses run by farm women. At the beginning of membership, peasant women only participated in group activities, such as training and group business activities. The average group of peasant women in Sragen Regency has a business unit as a source of business income. These business units include herbal medicine agribusiness units ranging from cultivation to marketing of herbal products, hydroponic agribusiness units, and other business units or home industries. In addition to business units, there are farmer women's

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