

Implementation of sociopreneurship in women farmers groups (KWT) with utilization of local food to improve food security and family economy



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ABSTRACT

Introduction: The COVID-19 pandemic has had an impact on the economic and business sectors in Indonesia. The pandemic has affected household food security not only in the economic sector but also in the household sector. The number of households experiencing food insecurity has increased as they cannot meet their food needs. In Sleman Regency, a forum for women farmer's groups (KWT) sells local food. One quite active is in Moyudan and Minggir Region, but the sales are not optimal, and not all have received training. Therefore, this study aims to see changes in KWT's knowledge, improve their marketing after training, and increase their economic status.

Methods: This research was conducted in Sleman Regency, DIY. The training target involved the KWT in Moyudan and Minggir Region forums. We collected primary data from KWT characteristics (24 groups) and pre-post-test scores for each training (46 and 27 participants). The activities include 1) socialization of the program and bazaar of KWT products; 2) training of KWT; 3) packaging design and accompaniment; and 4) developing module training.

Results: Most of KWT produces dry foods, such as vegetable and fruit chips, and shredded. Most of KWT's businesses (75.0%) are still running, although some have stopped due to difficulty in promotion during the pandemic. The obstacles experienced by KWT were using technology, arranging home industry food permits (P-IRT), and marketing. Training 1 and 2 pre-tests and post-test results increased only a little since the participants already had good knowledge (62.5% and 85.5% mainly answered correctly). However, many participants still answered incorrectly regarding the halal certification and food licensing. Ten KWTs succeeded in designing product logos and were assisted in making new, more attractive designs.

Conclusion: The accompaniment can help KWT maximize its potential to improve the community's economic status.

Keywords: family economy; food security; KWT; sociopreneurship.

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INTRODUCTION

The COVID-19 pandemic has impacted Indonesia's economic and business sectors. The results of the PRAKARSA survey 2020 showed that female micro, small, and medium enterprises (MSME) actors experienced, among others, a decrease in income and the number of consumers (due to large-scale social restrictions/PSBB). Apart from impacting the economic sector, which has reduced income, the COVID-19 pandemic has also affected household food security. The proportion of households experiencing moderate to severe food insecurity increased by 11.7% in 2020. Nearly a third of respondents are

worried about being unable to feed their families.¹⁻³ Another survey also found that 36% of respondents often ate less than they needed to due to economic limitations.⁴ Health and demographic surveillance system (HDSS) Sleman data for 2020 found that 5.5% of respondents needed help to meet their basic needs, including food, especially those in the lower economic status group.

Food security is also still one of the problems today. The Indonesian Food and Drug Authority/BPOM data in 2018 found that as many as 14% of all samples and half of the food samples were not registered and did not meet the terms and conditions. These foods contain harmful substances

and microbial contamination.⁵ Based on the Report on Health and Social Studies of the Development Planning Agency at the Sub-National Level (BAPPEDA) in 2021, the distribution of food that does not meet the requirements of food safety and sanitation hygiene is still rife. In 2020, there were 4 cases of outbreaks, and all of them were caused by food poisoning.

At Kapanewon Moyudan dan Minggir, KWTs have been formed, but KWT's product marketing is not optimal, and not all of them have received training. Based on this description, there is a need for the implementation of Sociopreneurship Women Farmers Groups (KWT) in channeling vegetable and fruit harvests

as an effort to increase local food-based nutritional consumption, as well as the accompaniment to advance their business in the pandemic period with supplies of food security, business management, and marketing technology-based. Therefore, this study aims to see changes in KWT's knowledge and improve their marketing after being given training, hence increasing economic status.

METHOD

The method used in this study is descriptive with an explanatory research approach. We conducted an implementation descriptive research in the Sleman HDSS area in Moyudan and Minggir, Sleman, which has a forum for KWT and is quite active. The study included the women farmers group (KWT) in Moyudan and Minggir districts, which produce local food products. However, participants who refused to give informed consent were excluded from the study. The data collection and community service activities were conducted from April – November 2022. The KWT's characteristics were analyzed descriptively. The activities include 1) socialization and bazaar of KWT products; 2) training and pre-post-test; 3) packaging design and accompaniment; and 4) developing module training.

Socialization of the program and bazaar of KWT products

Socialization is a crucial first step in community service events to ensure the project's success. Socialization aims to introduce the sociopreneurship program towards KWT and provide information regarding the activities to be held. The KWT's characteristic data were collected through fill-out forms, including KWT's locations, business continuity, food products, production equipment, and threats that affect the business. The data was analyzed descriptively. The targets are KWT, which runs in the food product business, and as many as 30 KWTs. In addition, the bazaar of KWT is managed to identify food product diversity.

Training of KWT

The training topics encompass processing local foods, food halal certification, food hygiene and sanitation, labeling and

licensing, packaging, and marketing food products. The speakers were experts in their fields, such as from the Faculty of Agriculture Universitas Gadjah Mada (UGM), Indonesian Ulema Council (MUI) DIY, the Department of Nutrition and Health UGM, The Indonesian Food and Drug Authority (BPOM), and Gizigo (a start-up in nutrition-based services). We want to examine the KWTs' knowledge before and after the training. The participants underwent a pre-test and post-test regarding the topics given, and we analyzed the mean score difference using the Wilcoxon test.

Packaging design and accompaniment

It was suggested that the KWT create a raw illustration of their product packaging design. The selected participant with a potential design will be optimized in developing the food product by receiving encouragement from the expert in making design products.

Developing module training

The training module is one of the learning media participants use, which is presented briefly and systematically. This training module is made from material given by speakers, which is concise and exciting so that participants will find it easier to understand the material presented. The topics of this module include 1) local food-based food processing, 2) food hygiene and sanitation, 3) how to register with The Indonesian Food and Drug Authority

(BPOM), and 4) how to register for halal certification.

RESULT

Socialization of the program and bazaar of KWT products

Twenty-four KWT representatives participated and filled out the questionnaire. Most were located in Moyudan (83%) (Figure 1). The businesses were mainly running (75%), although some were not continued due to having just started or stopped during the pandemic. The KWT's featured products are mostly dry foods, such as vegetable and fruit chips, and shredded. Many KWTs already have the equipment needed, such as a cutting machine, spinner, peeler, or oven. The obstacles experienced by KWT were using technology, arranging home industry food permits (P-IRT), and marketing.

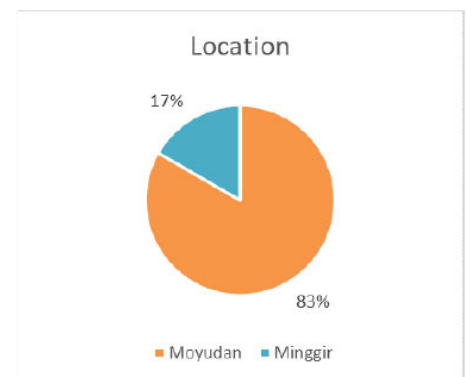


Figure 1. Location of KWT.

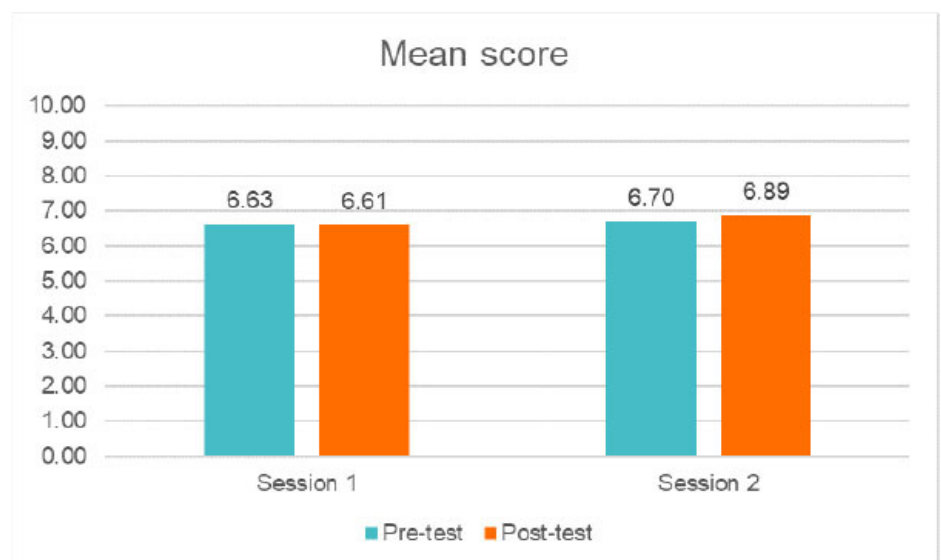


Figure 2. The mean score of the Pre-test and Post-test.

Table 1. Changes in participants' knowledge

No	Topic	Pre-test		Post-test	
		True	%	True	%
Session 1 (n=46)					
1	Basic food processing where putting heat into the food	39	85	45	98
2	Things to pay attention to during food production	46	100	46	100
3	Examples of dry food processing techniques	44	96	41	89
4	Examples of processed cassava products	39	85	41	89
5	MUI's recognition of halal products	40	87	36	78
6	The halal system according to MUI criteria	14	30	14	30
7	A product is not halal if	37	80	36	78
8	Halal certification system by MUI	44	96	46	100
Session 2 (n=27)					
1	Processed food that is required to have BPOM and SPP-IRT permits	27	100	27	100
2	Processed food distribution permit validity period	11	41	14	52
3	Benefits of having a food distribution permit	22	81	24	89
4	Documents needed to register processed food	24	89	24	89
5	Full form of SSOP	25	93	27	100
6	Activities that can cause cross-contamination	25	93	23	85
7	Sanitation requirements that needed to be done	22	81	23	85
8	Wrong behavior in applying hygiene and sanitation	25	93	24	89

Training of KWT

The pre-test and post-test scores for each training session did not differ significantly. In session 1, topics processing local foods and halal food certification, the mean score slightly decreased from 6.63 to 6.61 ($p=0.968$). Meanwhile, in session 2, topics of food hygiene and sanitation, food labeling, and licensing, the mean score increased from 6.70 to 6.89 ($p=0.260$) (Figure 2). However, most participants already had a good score (≥ 6 questions answered correctly, 75%), 85.5% in session 1, and 62.5% in session 2. Many participants answered incorrectly regarding the halal system according to MUI criteria and the processed food distribution, which permits a validity period. In the topics of processing local foods and food hygiene and sanitation, most participants ($\geq 85\%$) answered correctly (Table 1).

Packaging design and accompaniment

The development of packaging design and accompaniment is a follow-up from previous training. The expert will consider ten participants with food products and potential design products in packaging design development and accompaniment. The advanced packaging design contains the newest logo design and general product information, including identity, quantity net, components statement, signature line, production, and expired date (Table 2).

Developing training module

The training module "Implementation of Sociopreneurship in Women Farmers Groups (KWT) with Utilisation of Local Food to Improve Food Security and Family Economy" is one of the output products of this training made by the team. The training module contains materials by speakers, including 1) local food-based food processing, 2) food hygiene and sanitation, 3) how to register with The Indonesian Food and Drug Authority (BPOM), and 4) how to register for halal certification. This module is distributed to participants by e-module (pdf) and printed form with A4 size. In Figure 3, it can be seen that the module has covered all the material provided by the speakers and is re-made in an attractive and concise design so that participants can more easily understand the material that has been presented.

DISCUSSION

Implementing this model has strengthened KWT and helped it maintain the sustainability of production and marketing products. The accompaniment can help KWT maximize its potential to improve the community's economic status. Most KWTs' businesses are still running, although some have just started or stopped during the pandemic. The KWTs utilize

local foods, processed as dry foods, such as vegetable and fruit chips, and shredded. The KWTs are facing challenges regarding how to use technology in selling, registering, and marketing their food products. Their general knowledge was quite good, except for topics regarding the halal system according to MUI criteria and processed food distribution, which permits a validity period.

Many KWTs can still run their business during the pandemic. This aligns with the previous survey that only a few micro, small, and medium enterprises (MSMEs) still run their business. The type of businesses that remain survive are in the field of culinary (50%), groceries (20%), craft (10%), floriculture (10%) and fashion (10%).⁶ That is why most of the KWTs could survive during the pandemic era: they sold food. Unlike the others, one KWT's business stopped during the pandemic. For MSMEs, a weak economy due to COVID-19 can lead to decreased production and sales, even business continuity.⁷ The KWT needs help promoting its products because they have a less broad range of promotions (only via WhatsApp). The survey also said other factors that can make MSMEs maintain their business are online marketing, business switching, financial management, product diversification, and

product innovation.⁶ The KWT already used online marketing but was limited to WhatsApp only.

KWTs' featured products encouraged using local foods processed as vegetable and fruit chips and shredded. During the pandemic, it is recommended to process foods creatively, especially local foods, to support national food security.⁸

KWTs need help promoting their products using technology, registering food products (P-IRT), and marketing. The participant's knowledge regarding

halal certification and food licensing is still low. This correlates with the previous survey that found that women-led MSMEs have low digital literacy. There is an inequality of access in which women have fewer opportunities to learn in science, technology, engineering, and mathematics (STEM). Their primary sources of learning are self-taught (87%), taught by friends and families (35%), participated in training held by the MSMEs community (34%), and received training from civil society organizations (9%).⁶ Previous community

service also found MSMEs that did not have a distribution permit (P-IRT) or halal certification were marketing their products with limited access.^{9,10} Digital marketing can support KWT or MSME in expanding the market and customers.¹¹⁻¹⁵

However, the findings in this paper are subject to at least two limitations—first, the participants' poor motivation. However, we have maintained the motivation of participants to improve their business and production activities. Second, the study did not discuss increasing production

Table 2. Food Packaging Design

	Before	After
Logo		
Packaging		
Logo		

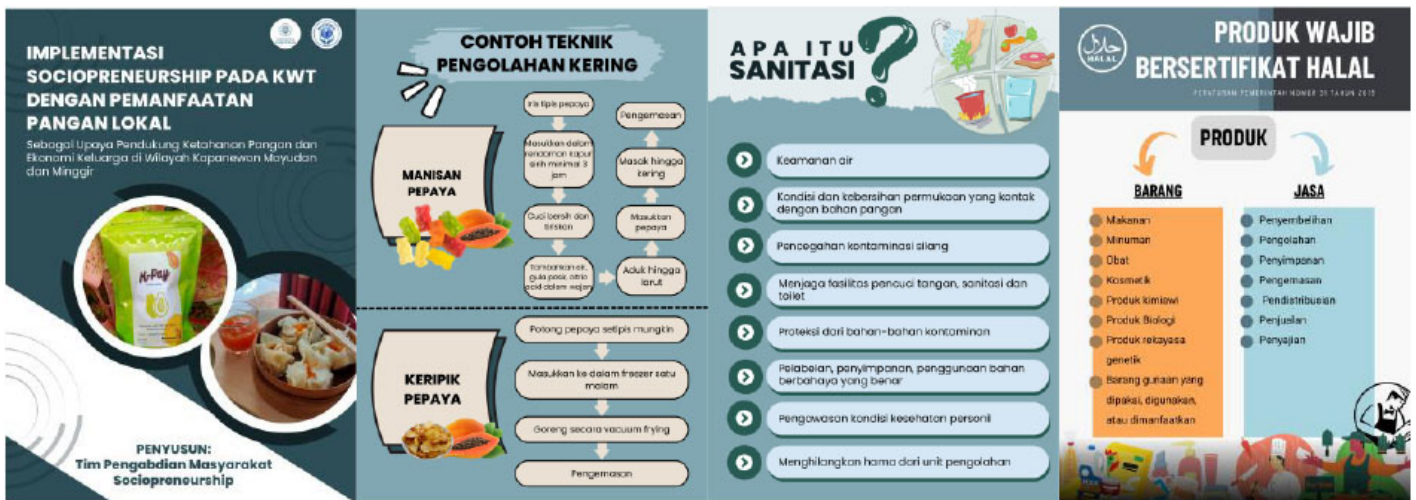
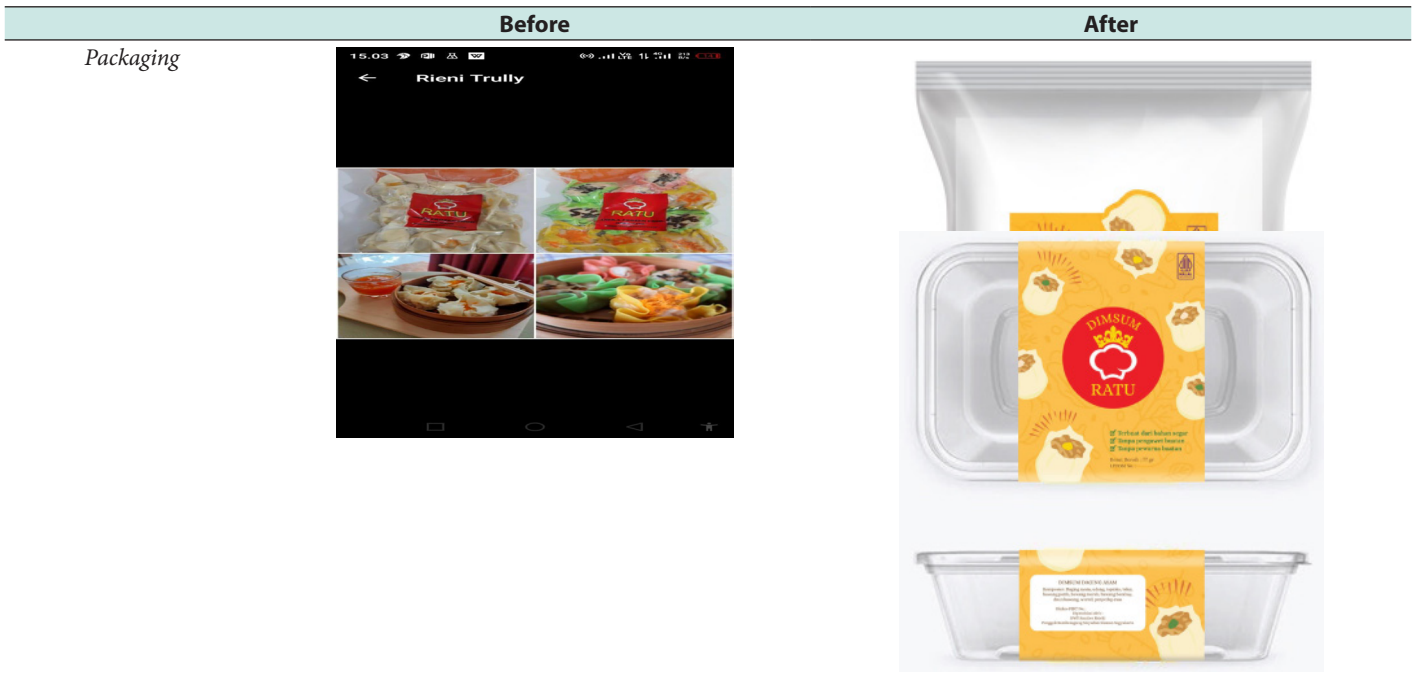


Figure 3. Training module.

capacity and the producers' desire to expand product marketing.

CONCLUSION

Based on the research results, the implementation program for KWT can improve income and economic status. The implementation includes socialization and bazaar of KWT products, training, packaging design and accompaniment, and developing module training. Moreover, ten KWTs succeeded in designing product logos and were assisted in making new, more attractive designs.

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CONFLICT OF INTERESTS

There is no conflict of interest in this paper.

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ETHICAL APPROVAL

This study was approved by the Medical and Health Research Ethics Committee (MHREC) Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada

STATEMENT OF HUMAN RIGHTS

All procedures in this study were conducted with approved protocols by the Medical and Health Research Ethics Committee (MHREC) Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada (KE/FK/0974/EC/2022).

STATEMENT OF INFORMED CONSENT

Written informed consent was obtained from the subjects for their anonymized information to be published in this article.

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