

Identification of KWT “Giri Asri” Problems in Eggroll Production

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Abstract.

Kelompok Wanita Tani (KWT) Giri Asri is a women's farmer group located in Giri Asri, Wukirsari Village, Imogiri Subdistrict, Bantul Regency, Yogyakarta. This group consists of housewives who are actively involved in producing various local food products and non-food items. One of the flagship products of KWT Giri Asri is eggroll. However, the production process remains traditional and depends on simple tools, which include limited baking molds and two-burner stoves. Several key issues have been identified: (1) limited and outdated production equipment, which hinders productivity and prevents the group from meeting market demand; (2) lack of product variation, with only the original flavor being offered, despite opportunities to develop new flavors such as chocolate, cocopandan, or fruit-based options; and (3) unattractive packaging, with plain containers and simple labels that do not effectively promote the product. Based on interviews with members of KWT Giri Asri, it was revealed that with four eggroll molds and a working time of approximately 6 to 7 hours per day, the group is able to process around 3 kilograms of eggroll batter, which yields approximately 2 to 3 kilograms of finished eggrolls. Each container of eggrolls weighs 150 grams (net weight), allowing the group to produce approximately 13 to 20 jars of eggrolls per day. In terms of packaging, KWT Giri Asri uses two types of packaging: plastic jars and pouch packaging. Both types are labeled only with a KWT's logo, without any detailed product information such as production date, expiration date, producer's name, net weight, or ingredient list. The eggrolls produced by KWT Giri Asri are made using a standard recipe consisting of wheat flour, cornstarch, margarine, eggs, sugar, and vanilla. At present, the eggrolls are only available in a single original flavor, with no additional flavor variations offered.

Keywords: KWT; Giri asri; Eggroll.

I. INTRODUCTION

Indonesia's economy is significantly supported by the vibrant growth of micro, small, and medium enterprises (MSMEs), which have been expanding rapidly across communities. Many MSMEs strive to produce consumer-preferred processed food products, despite facing various challenges, such as the use of basic equipment, limited product presentation, and lack of product variation. The Food and Agriculture Organization (FAO) has emphasized that the application of appropriate technology and attractive packaging is essential for enabling food-based MSMEs to compete in global markets (FAO, 2020).

A study on household-scale snack enterprises demonstrated that replacing manual equipment with semi-mechanical tools can increase production capacity by 2 to 3 times and reduce processing time by 30–50% (Suhartanto, 2024). The combination of equipment modernization, product innovation, and visually informative packaging has been empirically proven to boost production, sales, and consumer trust in food MSMEs. Previous research also shows that snack producers who introduced new flavor variants, such as chocolate, cheese, or vegetables, experienced a 25–40% increase in sales due to greater consumer appeal (Setiobudi & Audrey, 2021). Moreover, informative and visually attractive packaging enhances consumer trust by conveying product claims, origin, and traceability (Wu, Zhang, van Klinken, Schrobback, & Muller, 2021). Further study conducted in China confirmed that visual elements such as color, graphics, and layout significantly affect purchase intention (Liu, Samsudin, & Zou, 2025).

Kelompok Wanita Tani (KWT) Giri Asri is a women's farmer group located in Giri Asri, Wukirsari Village, Imogiri Subdistrict, Bantul Regency, Yogyakarta. This group consists of housewives who are actively involved in producing various local food products and non-food items. The 2-year-old KWT Giri Asri is chaired by Mrs. Ani Masruhah. Initially, the Women Farmers Group utilized the empty land around the Mosque by planting various types of commodities such as lemongrass, ginger, mustard greens, spinach, corn, and pumpkin. Furthermore, the activities of the Women Farmers Group developed by processing various food and non-food products to earn income.

Their routine activities include production, packaging, direct sales, social events, and participatory training. Their food products range from traditional snacks such as *talam*, *klepon*, *geplak*, *gethuk*, *kicak*, and crackers, to eggrolls, while their non-food products include soap, herbal oil, and perfume.

One of the flagship products of KWT Giri Asri is eggroll. This product has gained positive attention from the local community due to its distinctive taste. However, the production process remains traditional and depends on simple tools, which include limited baking molds and two-burner stoves. Consequently, production is time-consuming and inefficient.

Several key issues have been identified: (1) limited and outdated production equipment, which hinders productivity and prevents the group from meeting market demand; (2) lack of product variation, with only the original flavor being offered, despite opportunities to develop new flavors such as chocolate, *cocopandan*, or fruit-based options; and (3) unattractive packaging, with plain containers and simple labels that do not effectively promote the product.

To address these issues, a community service initiative was designed with the following goals: improving production efficiency through the introduction of semi-modern equipment, enhancing product appeal by developing new flavors, and increasing market competitiveness through improved packaging and labeling. The program was carried out in active collaboration with the members of KWT Giri Asri, who showed high levels of enthusiasm and commitment throughout each production stage.

II. METHODS

Activity Design

The method applied in this research is by combining direct visitation and interviews with literature study to find appropriate technology. The goal was to improve the eggroll production

capacity of KWT Giri Asri by introducing new tools, developing innovative products, and refining packaging design. The stages of the activity included: (1) identifying the partner's potential and problems through site visits and interviews; (2) formulating appropriate solutions based on field observations and relevant literature; (3) designing semi-modern tools to address production issues; (4) designing new packaging and product label.

Location, Time, and Duration

The program was conducted at the KWT Giri Asri headquarters, located in Giri Asri, Wukirsari Village, Imogiri Subdistrict, Bantul Regency, Yogyakarta. Visitation was done on 20th May 2025 while interviews was done during May to June 2025.

Initial Conditions of the Partner

Before this program, KWT Giri Asri managed a small-scale seasonal business with eggroll as one of its main products. Their production tools consisted of four manual molds and a two-burner gas stove. Each mold requires approximately four minutes to produce one eggroll. Assuming 7 hours of effective production time per day, resulting in a total daily output of around 13-20 jars. Product variation was limited to the original flavor only with basic packaging.

Expected Outcomes

The expected results from the community engagement program include:

1. A more efficient and faster eggroll production process due to the adoption of semi-modern tools;
2. Development of various eggroll flavors to increase product appeal and sales potential;
3. More attractive and informative packaging;
4. Increased knowledge and skills among KWT members in production and marketing, leading to higher production capacity and improved sales.

III. RESULT AND DISCUSSION

Result

The community service activity at KWT Giri Asri was held on May 20, 2025, in Giri Asri. During the visit, it was observed that KWT Giri Asri produces a variety of goods, consisting of both food and non-food products. The food products include traditional snacks such as *talam*, *klepon*, *geplak*, *gethuk*, *kicak*, crackers, and eggrolls, while their non-food products include soap, herbal oil, and perfume. Among these, eggrolls have become one of the flagship products of KWT Giri Asri due to strong consumer demand.

The production of eggrolls at KWT Giri Asri began in 2025 as part of the group's active efforts to improve the economic well-being of its members. Based on interviews conducted during the visit, it was found that the highest number of eggroll orders occurred during the lead-up to the Eid al-Fitr celebrations in 2025, when community enthusiasm for festive treats peaked. Unfortunately, the group was unable to meet all the demand due to limited production capacity, as they are still relying on basic manual tools.

Currently, KWT Giri Asri operates with only four eggroll molds and a few supporting tools, all of which are relatively simple. The molds consist of two patterned iron plates that are pressed

together to flatten the batter. The batter is heated on a gas stove until 90% cooked, approximately. Before hardening, the flattened eggroll is lifted using a bamboo stick and rolled into a cylindrical shape. Once it shaped, the eggrolls are cooled in room temperature, allowing them to develop the desired crispy and firm texture with a golden-brown appearance.

Based on on interviews with members of KWT Giri Asri, it was revealed that with four eggroll molds and a working time of approximately 6 to 7 hours per day, the group is able to process around 3 kilograms of eggroll batter, which yields approximately 2 to 3 kilograms of finished eggrolls. Each container of eggrolls weighs 150 grams (net weight), allowing the group to produce approximately 13 to 20 jars of eggrolls per day. In terms of packaging, KWT Giri Asri uses two types of packaging: plastic jars and pouch packaging. Both types are labeled only with a KWT's logo, without any detailed product information such as production date, expiration date, producer's name, net weight, or ingredient list. The eggrolls produced by KWT Giri Asri are made using a standard recipe consisting of wheat flour, cornstarch, margarine, eggs, sugar, and vanilla. At present, the eggrolls are only available in a single original flavor, with no additional flavor variations offered.



(Figure 1. Eggroll making process)



(Figure 2. Information gathering process with the Giri Asri Women Farmers Group)

Discussion

Based on interview results, it was found that KWT Giri Asri is currently limited to owning only four eggroll molds, while the stove used for cooking is borrowed from individual members. Although the available molds are considered sufficient to meet current demand during regular days—where daily sales only reach around two jars—this is not the case during festive seasons. In periods leading up to major holidays, demand increases significantly, but due to the lack of adequate equipment, production cannot be scaled up to meet consumer needs. The addition of more complete and modern tools is expected to enhance the production capacity of KWT Giri Asri's eggrolls.

Despite the group's efforts, current eggroll sales remain relatively low, averaging only 2–3 jars per day. This may be attributed to a lack of consumer interest in the eggroll products currently offered. To increase market appeal, introducing new flavor variations may be an effective strategy to meet modern consumer preferences. For instance, flavors such as chocolate, matcha, or popular fruit-based options can be added to broaden the product's appeal. These new flavors can be developed by modifying the original KWT Giri Asri recipe to include additional ingredients such as cocoa powder, matcha powder, or fruit purée in the dough. With the introduction of such flavor innovations, it is expected that eggroll sales could increase by up to threefold. Taste, aroma and color are the attractions for consumers to consume food products, so producers usually add additives to make food products more attractive (Zat et al., 2024).

In addition, the inclusion of fruit extracts or purée offers added value from a nutritional perspective. As public awareness of healthy eating continues to rise, consumers increasingly seek out snacks that not only taste good but also contribute to their well-being. The incorporation of natural fruit ingredients has the potential to enhance the nutritional content of the eggrolls, positioning them as a healthier snack option. As a step towards food diversification, wheat flour as the basic ingredient for eggrolls can be substituted with other local carbohydrate sources, one of which is pumpkin, which is also produced from the KWT Giri Asri land.



(Figure 3. Yellow Pumpkin produced by KWT Giri Asri)

Pumpkin is considered to have good nutritional content so that it can improve the nutritional quality of the eggroll product produced. In addition, the addition of pumpkin can increase the appeal because of its natural yellow color. Pumpkin contains carotenoids that can prevent deficiencies of vitamin A, vitamin C and vitamin E (Mahmoud & Omur A. Mehder, 2022). The addition of pumpkin can also be used as a natural dye so that it can attract the attention of consumers. The addition of pumpkin as much as 60% and 80% in steamed sponge cake products provides a higher level of preference for color than the addition of pumpkin in small amounts, namely 20% and 40% (Stefania, Ludong, & Oessoe, 2021). With the right innovation in substituting ingredients using pumpkin, it is hoped that it can increase the superiority of the eggroll products produced by KWT Giri Asri so that there is more demand from consumers.

Furthermore, sales performance can be improved through the creation of more attractive product labels and packaging. Packaging is one of the important factors in making food products. Food packaging is a container for food that can determine the quality of the product (Suparman, Rohmah, & Awaludin, 2023). In addition to serving to contain the product, packaging also aims to

protect the product from damage. Labeling on the packaging is also an important factor in providing information to consumers regarding the packaged product.

Eggroll produced by KWT Giri Asri are packaged in plastic jars with the KWT Giri Asri logo on the top. The use of jars is quite good because it is practical and can prevent damage to the product so that it does not break. Nutritional information is needed to influence consumers (Kontousias et al., 2024). The packaging still has weakness, namely it does not have a label that explains the product name, composition, nutritional information, production date, expiration date, and net weight of the product. In addition, it is important to include the UMKM product registration number (PIRT) and the halal logo to provide more confidence to consumers regarding the product.



(Figure 4. Packaging of eggroll produced by KWT Giri Asri)

A professionally designed logo and label will highlight the product's advantages more effectively and improve its presentation to potential customers. Besides taste and uniqueness, visual appeal plays a critical role in influencing consumer choices. A well-designed label and packaging are essential marketing tools that can help draw consumer attention and differentiate the product in a competitive market.



(Figure 5. Example of eggroll packaging label)

IV. CONCLUSION

Based on the results of the community service, Kelompok Wanita Tani (KWT) "Giri Asri" does not yet have an understanding of increasing eggroll production capacity by utilizing modern technology, so it has not met market demand. However, they expect assistance from government agencies or higher education institutions through community service grants, so that problems in increasing production capacity can be resolved.

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