



Effective Packaging Design as an Empowerment Strategy for Household MSMEs: A Participatory Learning and Action Approach

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Received: April 17, 2024

Revised: May 29, 2024

Accepted: June 25, 2024

Published: June 30, 2024

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DOI: [10.29303/ujcs.v5i2.639](https://doi.org/10.29303/ujcs.v5i2.639)

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Abstract: Empowering Household Micro, Small, and Medium Enterprises (MSMEs) is a primary focus in local economic development and community economics. One crucial aspect in enhancing the competitiveness and capabilities of Household MSMEs is effective packaging design. Packaging design is not merely about visual aesthetics but also about functionality and interaction with consumers. The Participatory Learning and Action (PLA) method is utilized to develop effective packaging designs, involving MSME actors, consumers, and other relevant parties. This PLA approach is expected to assist Household MSMEs in facing tight market competition. This research proposes community empowerment activities through the production of Rempeyek products in one of the MSMEs in Majalengka, using the PLA method. The success evaluation of the activities is conducted through the four-level evaluation model (Kirkpatrick), covering reaction, learning, behavior, and results. The evaluation results show an improvement in participants' knowledge, understanding, and skills in packaging design. The overall scores indicate that these activities successfully achieve the Kirkpatrick evaluation goals. Recommendations to enhance the implementation of this service development include increasing the capacity of project participants, addressing deeper issues, local government support, and support for domestic industries. This research demonstrates that training and mentoring in packaging design can provide significant benefits to Household MSMEs, enhancing product quality, market value, and competitiveness in a competitive market.

Keywords: Empowerment of UMKM; Participatory Learning and Action (PLA); Packaging design

Introduction

According to data from the Ministry of Cooperatives and SMEs, there are currently 64.2 million MSMEs and contribute 61.07% or IDR 8,573.89 trillion to GDP. The empowerment of Household MSMEs (Micro, Small, and Medium Enterprises) has become a major focus in local economic development strategies and community economics. In an effort to improve the competitiveness and capabilities of Household MSMEs, a product that is sold must have a layer of product protection from the outside. This layer is known as

packaging. Packaging is the implementation of the final result of the process of packaging a product (Klimchuk & Krasovec, 2013).

The main function of packaging is to protect the product from various opportunities for damage so that the process of storing and moving the product becomes easy. In addition, packaging also has a role as a product container, protective packaging that can protect from various factors of damage, to facilitate shipping and distribution, facilitate product calculation and as a means of promotion and information on a product (Indraswati, 2017). Thus the function of good packaging

How to Cite:

Harti, A. O. R. ., Marina, I., Sujadi, H. ., Fahrudin, M. ., & Fitria, A. N. . (2024). Effective Packaging Design as an Empowerment Strategy for Household MSMEs: A Participatory Learning and Action Approach. *Unram Journal of Community Service*, 5(2), 114-118. <https://doi.org/10.29303/ujcs.v5i2.639>

design can increase product added value, influence consumer decisions, and strengthen brand identity. However, effective packaging design is not only limited to visual aesthetics, but must also consider functional aspects and interaction with consumers.



Figure 1. Packaging

The utilization of marketing strategies that combine branding and packaging is very important (Kurniawati, D 2024). A good product design is a packaging design that can display information about the product to be sold to consumers, such as product name, product composition, nutritional content, expiration date, safety label, halal or non-halal certification, contact information and usage rules. According to (Marina, I.2016), A product will not be able to "market" itself well and win the level of intense competition if it is not supported by a good marketing strategy that can increase the selling value of the product in the eyes of consumers. Different product packaging may attract customers' attention and increase their interest. Mufreni (2016) product design has a significant effect on consumer interest and purchasing power. In addition, packaging materials and shapes also have a significant effect on consumer purchasing power and give a good image to a product.

Effective packaging design can be developed through a participatory process involving MSME actors, consumers, and other related parties. In the context of household MSMEs, effective packaging design can help improve the competitiveness and ability of MSMEs to face fierce market competition. Increasing productivity requires strong cooperation between entrepreneurs and the government (Marina, I. 2023). Thus, the role of the government is needed so that MSMEs can compete with other MSMEs in developing their products by conducting trainings. This research aims to develop effective packaging design as an empowerment strategy for Household MSMEs using the PLA approach.

The PLA method is used in various activities such as training, mentoring, and empowerment. Community empowerment activities are carried out to improve the community's economy through the production of

Rempeyek products in one of the MSMEs in Majalengka. This activity is expected to give birth to new innovations that can improve the community's economy (Ardiyanti et al., 2019) The PLA approach is one of the options that can be applied by the community because it requires special care in handling waste. The results of community activities can show activity through authentic presence and participation in each activity (Rachim & Pinting, 2019).

Method

The selection of MSMEs for this activity happened by chance, but with the intention to delve deeper into how these MSMEs develop their businesses and how effective packaging design can help them improve their competitiveness and ability to face fierce market competition. This activity involved one MSME in Majalengka Regency, the majority of whose products focus on the food category. However, the impact is that the MSME has not been able to compete outside of its neighborhood or region.

Table 1. Details of activity implementation stages

No.	Details	
1	Pre-Training	coordinate training times and venues Preparation of materials and mentoring Prepare training materials
2	Education	Socialization and material delivery: delivery of basic packaging theory
3	Practices	Product Manufacturing and Packaging
4.	Assistance	Direct mentoring
5	Evaluation	Evaluation of activity implementation

This activity is outlined in Table 1, with stages such as Pre-Training, Education, Practice, Mentoring, and Evaluation. The Participatory Learning and Action (PLA) method was used with the aim of increasing participant involvement in accordance with its objectives. PLA aims to increase participant participation compared to other training methods.

The success of this activity was measured through the participants' increased knowledge and skills in packaging design. At the end of the activity, participants were evaluated using a questionnaire to measure improvements in four aspects: response, learning, behavior, and outcomes.

Result and Discussion

Pre Implementation

As the organizing committee, the facilitators and reviewers of MSMEs in Majalengka district discussed the training plan. The main focus of the discussion was

to find a suitable training concept. The discussion showed that the majority of industrial entrepreneurs are housewives aged 30-40 years and above. To ensure that the training materials were acceptable to the participants, the mentors had to consider the challenges faced by the mentees. As a result of these discussions, a Participatory Learning and Action (PLA) approach was chosen.

Education Stage

At the initial stage of the activity, namely the Education Stage, socialization and material delivery were carried out to provide a theoretical basis and relevant basic concepts related to packaging design. The main objective of this stage is to increase MSMEs' awareness and understanding of the importance of effective packaging design in improving MSMEs' competitiveness and ability to face fierce market competition.

Table 2. Pre-education questions

No.	Question
1	What brand of products do you make?
2	What is your product category? How long does it last?
3	What makes your product different from others?
4	Who are your target customers?
5	What materials are used for your product packaging?
6	How much do packaging materials and product design cost?

Table 2 shows the questions asked before the education began. These questions help in understanding the product brand, product category, target consumers, packaging materials used, cost of packaging materials, and product design. This step also provides suggestions and considerations before designing the product packaging, with suggestions coming in the form of questions to aid understanding of the concept, shape, size, and materials used in the product packaging. The basic theory training process for packaging assistants is shown in Figure 2.



Figure 2. Material assistance

Practice Implementation

The implementation of the Practice stage in the Participatory Learning and Action (PLA) approach involves hands-on practice and demonstration to improve participants' understanding and skills. This practice requires participants to be actively involved in sketching the packaging framework based on the theory that has been learned previously. In the context of creating and designing packaging forms, there are three techniques that can be used:

Product Manufacturing: The creation of a product requires treatment and production process (Marina, I 2017). In this practice, the products produced include various types of peyek and dumpling sticks. By being directly involved in the process of making the products to be packaged, participants can gain a better understanding of the characteristics of the product, the raw materials used, the production process, and the added value to be conveyed through the product. Through direct participation in the product manufacturing process, participants can gain a better insight into product needs and preferences (Figures 2) are the implementation of the practical stage where the facilitators directly practice product manufacturing.



Figure 3. Product Making with Assistance

Product packaging: Packaging is a container or wrapper that can help prevent or reduce damage to the packaged material (Siti Muslimah, 2012) Packaging is a crucial aspect in the development of Micro, Small and Medium Enterprises (MSMEs). Effective packaging has the potential to increase product added value, influence consumer decisions, and strengthen brand image. In the MSME environment, effective packaging plays an important role in increasing the ability and competitiveness of MSMEs in the face of fierce market competition.

At this stage, Figure 3 shows the process of packaging products into transparent plastic packaging and reinforced by using a hand sealer to prevent air from entering and leaving the plastic packaging, so that the product becomes more durable. Meanwhile, Figure 5 shows documentation of MSME products that have been packaged properly.



Figure 4. Packaging stage

Evaluation

The evaluation process in a project or program has a very crucial role in measuring the extent of the achievement and success of the activities that have been carried out (Marina, I. 2023), To assess the success of training in this service, a four-level evaluation model (Kirkpatrick) is used which consists of response, learning, action, and results. This model includes process, output, and outcome evaluation. The evaluation was conducted through a questionnaire that included statements at each level.

At the response level, the questionnaire contained four statements to assess participants' responses to the training, including the weight of the training materials, the comfort of the training venue, the attractiveness of the material delivery, and the achievement of activity targets.

Table 3. Response Level Statement

No.	Question
1	Weighted training materials
2	Comfortable training venue
3	The delivery in the material is interesting
4	Target Implementation of activities in accordance with the plan

The learning level is assessed through four statements that measure increased knowledge and understanding, mastery of specialized knowledge, provision of new skills, and a change in perspective on the training material.

Table 4. Learning level statements

No.	Question
1	Increased knowledge and understanding of the science of packaging design.
2	Acquire specialized knowledge about this field
3	This training provided better skills than before
4	Changing your perspective on the training material increases your interest in learning more about the field.

At the behavioral level, the questionnaire contained four statements to assess whether participants needed to change their way of working, whether they applied the knowledge gained and shared it with others, whether

they were given freedom of expression in packaging design, and whether they felt the need to improve their working patterns.

Table 5. Behavior level statements.

No.	Question
1	You need to change the way you currently work
2	You apply the knowledge gained in this training and share it with others.
3	Freedom of Expression You are entitled to your product packaging You are given the freedom to create your own design
4	Changing the environment to support you To apply the training material you feel you need to improve your working patterns.

While at the result level, the questionnaire includes six statements covering the level of futility, benefits gained, costs incurred for product packaging design, improved product quality, improved process efficiency, and effectiveness gains.

Table 6. Level result statement

No.	Indicator	Statement
1	A little vanity	Attending training is worth it
2	Results	You will get many benefits from attending the training
3	Enter	Costs incurred for product packaging design will be cheaper
4	Quality Improvement	Your product quality will improve with new packaging
5	Improved efficiency	Design has the potential to increase efficiency in the production and marketing lines of your products,
6	Increased profitability	Packaging design can increase the attractiveness and selling point of the product.

The range of the questionnaire is 20 points, with the following description: 0-30 = Disagree, 50-69.99 = normal, 70-79.99 = Agree, and 80-100 = Strongly agree. The results of the questionnaire were recapitulated using the index formula, where Y and X represent the value given to each statement, then calculated accumulatively.

Table 7. Shows the complete data on activity evaluation results.

Question	indicator			
	Rection	Learning	Behavior	Result
1	81.90	79.27	83.48	76.64
2	79.27	75.00	81.48	89.80
3	84.10	74.53	84.85	65.58
4	63.48	80.85	85.00	78.75
5	-	-	-	77.69
6	-	-	-	85.59
Average	77.19	77.41	83.70	79.00

Based on data analysis, the average score for the response level of the four statements is 77.19, while the average score for the learning level of the four statements is 77.41. Furthermore, the average score for the behavior level of the four statements is 83.70. The average score for the outcome level consisting of six statements was 79. Overall, the Kirkpatrick model scores were in the "agree" and "strongly agree" range, indicating that the activity was successful.

This indicates that participants responded positively to the training and showed improvement in their knowledge, understanding and skills in packaging design. They also showed intentions to apply the knowledge they gained and improve their work patterns. In addition, the results of this activity show that packaging design has a positive impact on product quality, process efficiency, and product selling points. Thus, the overall scores in the "agree" and "strongly agree" ranges indicate that the activity successfully achieved the Kirkpatrick evaluation objectives and provided significant benefits to the participants.

Conclusion

The results of the study using the Kirkpatrick method showed that after the activity, participants were able to absorb and understand the content better, interact better in groups, and apply practices independently that contributed to better design. Participants' knowledge increased, their interest in deepening specific knowledge increased, and their skills in studying topics in depth increased.

In addition, participants realized the need to change their work behavior and share the knowledge they gained with others. Participating in this activity is also expected to provide significant benefits, such as improving product quality, product selling value, and most importantly, the ability to create their own packaging designs. The average result for the response level was 77.19, which matches the description of the response level. The learning level reached 77.41, which corresponds to the description of the learning level, while the behavior level reached 83.70, which corresponds to the behavior level of "Strongly Agree", and the result reached 79, indicating that all statements at that level were agreed upon.

Suggestions and recommendations to improve the implementation of this service development include: (1) increase the capacity of project participants across the district equally; (2) address the real issues, needs, and conditions of the initial activities for more in-depth investigation; (3) obtain support from the Majalengka district government to facilitate information exchange forums and market expansion to nurture the spirit and

culture of business; (4) obtain support from the Majalengka district government to introduce an information system that monitors activities; and (5) support domestic industries.

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