



Strengthening the Marketing Capacity of Water Hyacinth Compost Products Through Branding and Packaging Training in the Cempaka Women Farmers Group in Langung Village, West Aceh

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Abstract: The Cempaka Women's Farmers Group (KWT Cempaka) in Langung Village, Meurebo District, West Aceh Regency, has used water hyacinth as raw material for making organic compost which has quite large economic and environmental potential. However, compost products still face challenges in marketing, especially regarding product identity, packaging design and branding strategies that have not been developed optimally. This community service program aims to increase the marketing capacity of water hyacinth compost products through branding and product packaging training. The methods used include education, participatory training, logo design workshops, assistance with product label design, and the introduction of attractive and informative packaging techniques. This program was implemented with KWT Cempaka members as the main participants. The results show an increase in participants' understanding of the importance of branding in product marketing, increased ability to develop brand identity, and the creation of more attractive logo and packaging designs with higher market value. Through this program, the water hyacinth compost products produced by KWT Cempaka have the opportunity for greater market acceptance and increased competitiveness, thus supporting the sustainable development of group business activities. However, at this stage KWT. Cempaka is still marketing it in simple rice jute packaging and in the future it will use more attractive packaging.

Keywords: Simple Rice Jute Packaging, Water Hyacinth Compost, Product Packaging, Marketing, Women Farmers Group.

Introduction

Technology advancement in agriculture is essential since it is a component of the agricultural development. The goal of using technology in agriculture is to boost food production by using more sophisticated technology to replace conventional farming methods with modern ones. This has an impact on the use of chemical fertilisers and pesticides, which can cause environmental damage and ultimately reduce agricultural productivity (Mukhlis et al., 2024).

Community empowerment through the utilization of local resources is a strategic approach to improving economic welfare in rural areas. The success of a community-based enterprise depends not only on the production process but also on the ability to market and promote products effectively to consumers. In an increasingly competitive environment, product marketing is a critical factor affecting the sustainability of community enterprises, including those managed by women farmers (Kotler et al., 2021; Aaker, 2017).

The Women Farmers Group (Kelompok Wanita Tani, KWT) Cempaka, located in Langung Village,

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Meurebo Sub-district, West Aceh Regency, has been actively developing initiatives to transform agricultural waste into value-added products. One notable effort is utilizing water hyacinth (*Eichhornia crassipes*) as raw material for organic compost. Although water hyacinth is often considered a prolific aquatic weed, it contains high organic matter suitable for producing environmentally friendly fertilizer. Through this activity, group members have successfully produced compost that can be used as organic fertilizer for sustainable agricultural practices (Sari et al., 2022; FAO, 2022; Nisa et al., 2019).

Despite their ability to produce water hyacinth compost independently, KWT Cempaka faces challenges in product marketing. Initial observations and discussions with group members revealed that the compost products lack a clear brand identity, appealing packaging, and sufficient product information. Products are marketed in a simple manner, which limits consumer attention and reduces competitiveness compared to similar products with more professional branding and packaging. This finding aligns with previous community service research conducted by the authors, which indicated that strengthening product branding and packaging can enhance the competitiveness of water hyacinth-based and other local products (Nisa et al., 2025).

Effective branding helps build a product's identity and image, making it more recognizable to consumers, while attractive and informative packaging increases product value and serves as an effective communication tool to convey product advantages to potential buyers (Setiawan et al., 2021; Rundh, 2016). Therefore, enhancing the knowledge and skills of group members in designing logos, labels, and packaging is essential to support the marketing of water hyacinth compost products.

Following the previous community service activity on water hyacinth compost production (Nisa et al., 2025; 2024), the community service team from the Agribusiness Study Program, Faculty of Agriculture, Teuku Umar University conducted training on product branding and packaging for KWT Cempaka members. This activity was designed to assist the group in developing product identity through logo creation, label design, and packaging development that is both attractive and suitable for market needs.

Recent studies have highlighted that branding and packaging play a significant role in enhancing the competitiveness of community-based agricultural products. Effective branding enables small-scale producers to establish product differentiation, strengthen consumer trust, and increase market visibility (Keller & Swaminathan, 2023). In rural agribusiness contexts, product identity is increasingly

recognized as an important determinant of purchasing decisions, particularly for environmentally friendly and organic products (Ares et al., 2023). Packaging functions not only as a protective medium but also as a marketing communication tool that influences consumer perceptions regarding quality, safety, and product value (Rundh, 2024). Attractive packaging design combined with clear product information can significantly improve consumer interest and purchase intention, especially for products developed by farmer groups and micro-enterprises (Nemat et al., 2023). Furthermore, community empowerment programs focusing on branding and packaging innovation have demonstrated positive impacts on the sustainability of women-led enterprises (Rahman et al., 2024; Sari et al., 2023).

The objective of this community service activity is to improve the marketing capacity of water hyacinth compost products through training in branding and packaging for the Women Farmers Group (KWT) Cempaka in Langung Village, Meurebo Sub-district, West Aceh Regency. It is expected that the compost products produced by the group will gain higher added value, reach a wider market, and support increased income and economic independence for group members in a sustainable manner.

Method

Activity Design

This community service activity employed a participatory training approach aimed at improving the marketing capacity of water hyacinth compost products through branding and packaging enhancement. The participatory approach was selected to actively engage participants throughout the entire process, including problem identification, logo development, label creation, and product packaging design. This approach facilitated direct interaction between the community service team and members of the Women Farmers Group (KWT) Cempaka, thereby ensuring effective knowledge and skill transfer.

Location and Participants

The activity was conducted in Langung Village, Meurebo Sub-district, West Aceh Regency, Indonesia. The participants consisted of 20 members of the Women Farmers Group (KWT) Cempaka, who had previously been involved in water hyacinth compost production activities. Participants were selected purposively based on their active involvement in compost production and their willingness to participate in the training program.

Activity Procedures

The implementation of the community service activity consisted of four stages:

1. Problem Identification and Needs Assessment

The first stage involved observations and discussions with KWT Cempaka members to identify challenges related to product marketing. The assessment revealed that the compost products lacked a clear brand identity, attractive packaging, and adequate product information, which limited their competitiveness in the market.

2. Branding Training

The second stage focused on introducing participants to the basic concepts of branding and product identity. The training covered the importance of branding in product marketing, brand recognition, logo design principles, and the role of product labels in communicating product value to consumers. Interactive discussions and practical examples were used to enhance participants' understanding.

3. Packaging Development Training

The third stage involved training on product packaging development. Participants were introduced to various packaging materials, packaging functions, visual design elements, and labeling requirements. The community service team also provided hands-on guidance in designing packaging prototypes suitable for water hyacinth compost products. During this stage, participants developed a product logo and designed packaging that reflected the identity of KWT Cempaka.

4. Product Presentation and Evaluation

The final stage consisted of product presentation and evaluation. Participants presented the logo and packaging designs they had developed during the training. The community service team provided feedback regarding visual attractiveness, information completeness, practicality, and market suitability. This evaluation process enabled participants to refine and improve their product branding and packaging designs.

5. Evaluation of Activity Outcomes

The effectiveness of the training was evaluated using pre-test and post-test assessments to measure participants' knowledge improvement regarding branding and packaging concepts. In addition, participants' practical outputs, including logo designs and packaging prototypes, were evaluated based on creativity, readability, attractiveness, and suitability for the target market.

Participant feedback was also collected through discussions and questionnaires to assess satisfaction levels and identify perceived benefits from the training activities.

Data Analysis

Data obtained from the pre-test and post-test assessments were analyzed descriptively to determine changes in participants' knowledge levels before and after the training. The logo and packaging designs produced by participants were evaluated qualitatively based on branding and packaging criteria. Feedback collected from participants was analyzed descriptively to identify participants' perceptions of the training effectiveness and its contribution to improving the marketing capacity of water hyacinth compost products.

Result and Discussion

Implementation of the Community Service Program

This community service program, conducted from August to October 2025 in Langung Village, Meurebo District, West Aceh Regency, involved 20 members of the Cempaka Women's Farmers Group (KWT) who actively produce water hyacinth compost. The program focused on strengthening product marketing capacity through branding and packaging development.

The activities began with an introductory session on the importance of branding in increasing product value and market competitiveness. Participants were then provided with practical training on logo creation and product labeling to establish a distinct identity for the compost products produced by the group. Furthermore, participants received assistance in designing attractive and informative packaging that could improve consumer appeal. The program concluded with product presentation simulations and evaluation sessions to assess participants' understanding and practical achievements.

Participant engagement throughout the program was notably high. All participants attended the training sessions from beginning to end and actively participated in discussions, group activities, and practical exercises. Their enthusiasm reflected a strong need for marketing-related knowledge and skills that had previously been limited within the group.



Figure 1. Participation of members of the Cempaka Women Farmers Group in mentoring activities

Improvement of Participants' Knowledge

To evaluate the effectiveness of the training, pre-test and post-test assessments were conducted to measure participants' knowledge regarding branding and product packaging. The results demonstrated a substantial improvement in participants' understanding after the training activities.

Table 1. Pre-test and Post-test Results of Participants

Indicator	Pre-test Mean Score	Post-test Mean Score
Understanding of branding concepts	52.5	86.0
Knowledge of logo design	48.0	84.5
Knowledge of product labeling	55.0	88.0
Knowledge of packaging design	50.5	87.5
Overall Average	51.5	86.5

As shown in Table 1, the overall average score increased from 51.5 during the pre-test to 86.5 in the post-test, representing an improvement of 35 points. Prior to the training, most participants possessed adequate knowledge of compost production but had limited understanding of marketing strategies, product identity, and packaging design. Following the training, participants demonstrated a significantly improved understanding of branding principles, packaging functions, and essential information that should be displayed on product labels.

These findings indicate that the training effectively enhanced participants' marketing-related knowledge and provided a foundation for improving the commercial value of their compost products.

Outcomes of Logo and Product Label Development

During the practical sessions, participants successfully developed several logo concepts representing the characteristics and environmental values of water hyacinth compost. The selected logo incorporated green leaf elements and water hyacinth imagery, symbolizing environmental sustainability, organic agriculture, and ecological resource utilization.

Participants also designed product labels containing essential information, including product name, composition, benefits, net weight, usage instructions, and producer identification. Before the intervention, compost products were marketed using plain packaging without a clear brand identity. After the training, the products were equipped with professional labels that improved product recognition and consumer trust.

Evaluation of participants' work indicated that most were able to apply the design principles introduced during the training. The resulting logos and labels demonstrated satisfactory levels of creativity, readability, and visual appeal, meeting the assessment criteria established by the community service team.

Participants' ability to create meaningful logo designs supports the argument that visual identity plays a critical role in consumer perception. As research by Henderson and Cote (2020) suggests, effective logo design enhances brand recognition and consumer trust. The logos generated during the training incorporated symbolic elements representing sustainability and local identity, elements that have been shown to improve brand loyalty in agricultural products (Keller, 2022).

Development of Product Packaging

The packaging development phase resulted in a redesigned packaging concept that was considerably more attractive and market-oriented than the previous packaging. Laminated plastic sacks with colorful labels were selected as the primary packaging material due to their durability, affordability, and suitability for organic compost products.

Several factors were considered during the packaging design process:

1. Ease of storage and transportation.
2. Resistance to moisture and environmental conditions.
3. Visual attractiveness.
4. Completeness of product information.
5. Brand recognition and consumer appeal.

The newly designed packaging enhanced the overall appearance of the compost product and created a more professional image. Compared to the previous packaging, which lacked distinguishing characteristics, the new design provided a stronger product identity and increased its potential competitiveness in local markets.

Product Presentation Simulation

A product presentation simulation was conducted as part of the training evaluation process. Participants were asked to introduce and promote their newly branded compost products to other members of the group. This activity aimed to strengthen communication and marketing skills while allowing participants to practice conveying product value propositions.

Observations during the simulation revealed that participants were able to explain the benefits of water hyacinth compost, describe the production process, and communicate the advantages of the newly developed packaging and branding elements. Their confidence in presenting and promoting products improved

significantly compared to their initial performance before the training.

Constructive feedback provided by the community service team emphasized the importance of maintaining consistency in logo usage, packaging design, and promotional messages to establish a strong and recognizable brand image.

Participants' Feedback and Perceptions

Participant feedback collected at the end of the program indicated a highly positive response to the training activities. Most participants reported that the materials were easy to understand, relevant to their needs, and directly applicable to their business activities.

Thematic analysis of participant feedback identified several recurring themes:

1. Increased understanding of the importance of product branding.
2. Improved skills in logo and label design.
3. Greater confidence in marketing compost products.
4. Enhanced motivation to expand product distribution beyond the village area.
5. Interest in receiving further training on digital marketing and online promotion.

These findings suggest that the program not only improved participants' technical competencies but also enhanced their motivation and readiness to develop their business ventures more effectively.



Figure 2. Water hyacinth compost before packaging



Figure 3. The compost produced is still simple compost packaged in simple jute rice packaging, and in the future new packaging will be provided.

Discussion

The results demonstrate that the participatory training approach was effective in enhancing the branding and packaging capabilities of members of the Cempaka Women Farmers Group. Active participant involvement throughout the training process facilitated experiential learning, enabling participants to acquire practical knowledge and skills through direct engagement.

The findings of this study are consistent with previous research emphasizing the importance of branding and packaging in improving the competitiveness of community-based products. According to Keller and Swaminathan (2023), branding serves as a strategic mechanism for building consumer trust and differentiating products in competitive markets. Similarly, Rundh (2024) highlighted that packaging functions not only as a protective medium but also as a communication tool capable of influencing purchasing decisions and perceived product quality. The improvement in participants' knowledge and practical skills observed in this program supports previous findings reported by Rahman et al., (2024), who found that marketing capacity-building initiatives significantly enhance the entrepreneurial capabilities of rural women. Moreover, the utilization of water hyacinth as a raw material for organic compost aligns with sustainable agriculture principles and circular economy approaches.

The significant increase in post-test scores indicates successful knowledge transfer and capacity building. This finding supports the concept of community empowerment, which emphasizes human resource development as a critical factor in improving the sustainability and competitiveness of community-based enterprises. Branding and packaging are particularly important because high-quality products alone may not achieve market success without effective visual identity and consumer appeal.

The development of logos and packaging designs illustrates how branding interventions can add value to agricultural and environmentally based products. The transformation from plain packaging to professionally designed packaging increased product attractiveness, strengthened brand recognition, and enhanced consumer confidence. These improvements are expected to contribute positively to market acceptance and purchasing decisions.

Furthermore, the improvement in participants' communication skills observed during product presentation simulations indicates that the program provided benefits beyond technical design competencies. Participants became more capable of communicating product advantages and engaging

potential customers, which are essential components of successful marketing strategies.

Overall, the community service program successfully improved participants' knowledge, practical skills, and confidence regarding branding and packaging development for water hyacinth compost products. These outcomes are expected to support increased product competitiveness, broader market access, and improved economic opportunities for members of the Cempaka Women Farmers Group through more professional and market-oriented product management practices.

Conclusion

The community service program conducted with members of the Cempaka Women Farmers Group (KWT Cempaka) in Langung Village, Meurebo District, West Aceh Regency successfully enhanced participants' knowledge and skills related to product branding and packaging for water hyacinth compost. Through a participatory training approach, participants actively engaged in learning activities that included branding concepts, logo and label design, packaging development, and product presentation simulations.

The evaluation results indicated a significant improvement in participants' understanding of branding and packaging, as reflected by the increase in average post-test scores compared to pre-test scores. Participants were able to develop product logos, create informative labels, and design more attractive packaging that strengthened the visual identity and marketability of their compost products. In addition, the training improved participants' confidence and communication skills in promoting their products to potential consumers. The implementation of branding and packaging innovations added value to water hyacinth compost products and provided a stronger foundation for improving product competitiveness in local markets. Therefore, branding and packaging training can be regarded as an effective strategy for empowering community-based producer groups and supporting sustainable local enterprise development.

Future community service activities are recommended to focus on digital marketing, social media promotion, and market expansion strategies to strengthen the commercialization potential of water hyacinth compost products and increase the economic benefits received by members of the women farmers group.

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