

STRENGTHENING THE ORGANIC FARMING ECOSYSTEM AND DIGITAL MARKETING FOR RICE COMMODITIES PURBAYA TANI MANDIRI GROUP IN PURWABAKTI VILLAGE, PAMIJAHAN, BOGOR

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Abstract

This community service program (PKM) primarily aims to improve the economic welfare of the Purbaya Tani Mandiri (PTM) Farmer Group in Purwabakti Village, Bogor. The group, consisting of 40 members and managing 17.93 hectares of land, faces a crucial problem: the low selling price of organic rice (equivalent to non-organic) due to the lack of official certification and limitations in digital marketing. The program offers an integrated solution through education on securing product legality (Organic Certification and P-IRT/Home Industry Food Permit) and digital marketing training, which includes brand development, visual content, and the use of leading e-commerce platforms (Shopee and Tokopedia). The method used is a participatory approach with five stages: preparation, bureaucratic education, program execution, partner participation, and evaluation. The targeted outcomes of the program are an increase in product selling value, expansion of market reach to a national scale, and a significant improvement in farmer income.

Keywords: Digital Marketing, Organic Rice, Brand Development, Increase in Farmer Income

INTRODUCTION

The Purbaya Tani Mandiri (PTM) Farmer Group is a vital agrarian pillar in Purwabakti Village, Bogor Regency. PTM's commitment to organic farming practices should position their rice products in the premium category. However, the reality is that their product is sold at a relatively low price, equivalent to non-organic rice.

This condition is caused by two main factors: First, the PTM product lacks official recognized legality (Organic Certification), preventing them from marketing themselves as a certified premium product. Second, PTM still relies on conventional marketing methods limited to local markets and middlemen, causing them to miss opportunities to reach urban markets willing to pay more for healthy products.

This PKM program serves to bridge this gap through comprehensive assistance. It is

hoped that the program will not only enhance the farmers' technical ability to sell but also strengthen their business fundamentals through legality and branding identity aspects. The program is also aligned with the Key Performance Indicator (KPI) of Binaniaga Indonesia University to provide real learning experiences for students.

Background and Partner Profile

Purwabakti Village, located in Pamijahan Sub-district, has great agricultural potential, with PTM being one of its driving forces. A total of 40 PTM members manage a rice field area of 17.93 hectares, dedicated to organic rice commodities. Fertile land and environmentally friendly practices are the main assets. However, this natural capital has not translated into optimal economic welfare. Initial data shows that the average selling price of PTM's dried paddy (GKP) is only 85% of the potential price of certified organic GKP. The majority of the harvest is released through local middlemen, which cuts the value chain and minimizes direct farmer interaction with end consumers.

Problem Identification (Issues and Solutions)

To respond to these challenges, the PKM team conducted a root cause analysis summarized in the Problem and Solution Matrix (Table 1).

Table 1: Problem and Solution Matrix of Purbaya Tani Mandiri Farmer Group

No.	Crucial Problem	Main Cause	PKM Program Solution
1	Low Selling Price	Lack of official Organic Certification (Legality)	Bureaucratic and Legality Assistance
2	Limited Market Reach	Limited knowledge of digital marketing (e-commerce)	Digital Marketing and Branding Training
3	Weak Product Image	Conventional packaging and branding	Development of Brand Identity and Premium Packaging
4	Dependence on Middlemen	Lack of direct sales channels to end consumers (B2C)	Creation of Marketplace Accounts and Website

The central issue is PTM's failure to achieve price premiumization due to the weakness of three aspects: legality, branding, and digital distribution.

Program Objectives

The objectives of implementing this PKM program are formulated to be measurable (SMART):

1. Legality: To help the PTM Farmer Group obtain at least P-IRT and process the submission of Organic Certification within 6 months of the program running.
2. Digital Skills: To increase the literacy and skills of 80% of PTM members (at least 32 people) in managing online stores on Shopee and Tokopedia.

3. Branding and Innovation: To create a logo, brand narrative (storytelling), and a premium packaging prototype for PTM's rice product.
4. Economic Impact: To project an increase in the selling price of PTM organic rice by at least 20% above the non-organic market price through digital channels.

Theoretical Basis

A. Organic Farming and Certification According to Mayrowani (2012), the development of organic farming in Indonesia requires infrastructure support, including certification. Certification is a third-party validation that guarantees an environmentally friendly production process, thus increasing consumer trust and automatically justifying a premium price. Imani et al. (2018) emphasize that the organic farming system correlates positively with product selling value.

B. Digital Marketing and Branding In the digital era, e-commerce is an effective distribution channel for value-added agricultural products (Rachma & Umam, 2021).

Branding the process of creating a unique identity becomes crucial. Tai & Chew (2012) explain that a strong brand allows a product to differentiate itself from competitors, while Arifin & Ramadhan (2025) assert that visual content and storytelling (farmer narrative) are key elements in digital brand management.

IMPLEMENTATION METHOD

Contains a combination of research implementation plans/reports or PkM and procedures used into one narrative part. The implementation that has been carried out must be shown with references and with appropriate implementation techniques. The program uses a participatory approach (Margayaningsih, 2018) and is divided into five main stages involving active collaboration between the PKM team, students, and 40 PTM members.



Figure 1. Map of Purwabakti Village and PTM Farmer Group Location is included in the source but not transcribed. It is a visual representation of the land distribution

Stage 1: Preparation and Needs Assessment (Baseline)

1. Location Survey: The team visited Purwabakti Village to verify the location, land potential, and farmer group infrastructure.
2. Initial Data Collection (Baseline): Quantitative data (average selling price, turnover, distribution channels) and qualitative data (level of digital literacy, understanding of legality) of PTM members were collected.
3. Module Finalization: Based on the baseline data, the team compiled training modules that were highly specific and relevant to PTM's needs.

Stage 2: Education and Bureaucratic Assistance

This stage focused on legality, which is the primary prerequisite for price premiumization.

1. Legality Socialization: Education on the importance of P-IRT and Organic Certification for food products.
2. P-IRT Document Assistance: Assisting in the preparation of administrative files and procedures for submitting the P-IRT distribution permit at the local Health Office.
3. Organic Certification Acceleration: Assisting PTM in coordination with the Organic Certification Body (LSO) and preparing for field audits, including land mapping and cultivation process documentation.

Stage 3: Program Execution (Core Digital and Branding Training)

The program execution was carried out through a series of interactive, practice-oriented workshops.

Table 2. Digital Training Schedule for PTM Group

Training Topic	Duration	Method	Achievement Goal
Session 1: Brand & Storytelling	4 Hours	Discussion, Group Practicum	Establishment of PTM's logo, name, and unique narrative
Session 2: Mobile Product Photography	6 Hours	Hands-on with Smartphone	Farmers capable of producing 10 quality product photos for e-commerce
Session 3: Marketplace Management	8 Hours	Live Simulation (Shopee & Tokopedia)	Farmers capable of creating accounts, listing products, and managing orders
Session 4: Simple Website Creation	4 Hours	Presentation & Demo	Understanding the function of a digital storefront as an information and branding hub

Stage 4: Partner Participation and Practical Implementation

The active participation of the 40 PTM members was key. The PKM team facilitated direct practice:

1. Online Account Application: Every member or group representative was encouraged to create an online store account on Shopee and Tokopedia.
2. Product Listing Trial: Uploading PTM organic rice using product photos from the training and descriptions complete with brand narrative.
3. Operational Training: Simulation of inventory management, standard shipping packaging, and response to customer reviews.

RESULTS AND DISCUSSION

The program resulted in significant changes in three aspects: human resource capacity building, product innovation, and economic impact.

Increase in Knowledge and Skills

There was a drastic increase in the digital literacy of PTM members. Pre- and post-training data (calculated from questionnaires) showed that the average score for understanding marketplace management increased from 45% (pre-training) to 85% (post-training).



Figure 2. Web Application Socialization Session and Product Photography Training Using Smartphones



Figure 3. Joint documentation session after the Grant Handover Protocol Key skill

Key skills mastered by the partners:

1. Photography: Farmers can now take focused product photos with adequate lighting and using a professional minimalist background.
2. Account Management: The group now has official accounts on two major marketplaces and a digital storefront website, enabling direct B2C (Business-to-Consumer) transactions.

Product and Innovation

1. Brand Identity: The PKM team helped PTM design an official logo and tagline that reflects the organic values and local heritage of Purwabakti Village.
2. Premium Packaging: Packaging innovation was carried out by providing a prototype of a premium sack or bag labeled with the logo, which includes storytelling (e.g., "Organic Rice Grown at the Foot of Mount Salak"). This packaging visually distinguishes PTM's product from non-organic rice in the market.

Economic Impact and Price Projection

The economic impact of the program is measured by the potential for a significant increase in the selling price, which is made possible by legality and B2C sales channels.

Table 3: Comparison of PTM Rice Selling Prices (Assumed Post-Program Data)

PTM Rice Type		Sales Channel	Legality	Average Selling Price per Kg (IDR)	Increase in Selling Value
Organic (Initial)	Rice	Middleman/Local Market	Uncertified	Rp 11,500,-	(Basis)
Organic Rice (P-IRT Projection)		Digital Marketplace	P-IRT	Rp 14,500,-	+26.1%

Organic Rice (Certified Projection)	Digital Marketplace & Website	Official Organic Certification	Rp 17,500,-	+52.1%
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Note: Initial price is baseline data before the program. The price increase is a projection after the program and certification.

By utilizing e-commerce, PTM can now cut the long distribution chain, redirecting the margin previously taken by middlemen directly to the farmers. The increase in selling value (potential +52.1% after full certification) directly increases the net income of PTM members.

Achieved Outputs

The outputs of this PKM program have met the mandatory and additional targets:

1. Scientific Publication: This scientific article is published in an ISSN National Journal. (Mandatory Output)
2. Media Dissemination: Publication of activities in electronic mass media (e.g., local online news) and documentation videos on the Unbin TV YouTube channel. (Mandatory Output)
3. Product Innovation: Creation of Brand Identity (Logo, Tagline) and a premium packaging prototype. (Additional Output)
4. Certification: Successful issuance of the P-IRT permit and progress in the submission of the Organic Certification audit with the LSO. (Additional Output)

Discussion of Program Implications

The collaboration between legality, branding, and digital marketing creates a sustainable business ecosystem for PTM. Digital marketing without legality will only generate sales but will not provide the trust for premium prices. Conversely, legality without branding and digital marketing will make it difficult for premium products to reach the right market. The synergy of the three is:

1. Legality creates trust and distribution permits.
2. Branding creates emotional appeal and differentiation.
3. Digitalization creates broad market access and greater profit margins.

This program proves that technology adaptation is the key to achieving economic independence at the rural community level.

CONCLUSION

This community service program is a strategic initiative that successfully overcame the economic barriers of the Purbaya Tani Mandiri (PTM) Farmer Group in Purwabakti Village. The integrated solution through bureaucratic assistance, branding training, and digital marketing implementation has equipped the farmers adequately to transform from passive sellers into active producers who manage the value chain to the end consumer. The success of this program is evidenced by the increase in member capacity, product innovation, and the potential for an increase in product selling value of more than 50%. Contains a conclusion from the results of research/community service activities which are briefly explained and are

an idea of research/community service activities.

Suggestions and Sustainability.

To ensure the long-term impact of the program, several suggestions are proposed:

1. Full Partner Commitment: Full commitment and participation from all PTM members are needed, especially in maintaining organic quality to retain certification.
2. Establishment of a Digital Native Team: PTM needs to form an internal team consisting of the younger generation who are fully responsible for managing and optimizing marketplace accounts and the website on an ongoing basis.
3. Product Diversification: After organic rice, PTM is advised to diversify derivative products (e.g., organic brown rice, rice flour) to maximize the potential of the newly opened digital market.
4. Model for Replication: This program has the potential to be used as a model for other agrarian villages in Bogor Regency that face similar challenges.

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