

Improving Packaging and Marketing of Local Products Through the Application of Packaging Technology and Innovation to Increase the Income of the Community in Opak Village

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ABSTRAK

Kegiatan pengabdian masyarakat dalam program gabungan nasional dilakukan di Desa Wakaf, Desa Sukaratu, dan Majasari Kecamatan Pandeglang, dengan mitra sasaran kelompok pengrajin makanan buram dan kelompok tani wakaf. Masalah mitra sasaran adalah bahwa tidak ada mitra yang mampu menerapkan manajemen bisnis, pemasaran online, atau penerapan teknologi inovasi dalam proses produksi standar. Tujuan pengabdian kepada masyarakat dalam program pelayanan nasional adalah untuk meningkatkan pengetahuan dan keterampilan mitra sasaran dalam menerapkan manajemen bisnis, pemasaran berbasis online dan penerapan teknologi inovasi dalam proses produksi. Metode kegiatan pada pengabdian kepada masyarakat ini adalah sosialisasi program nasional, penerapan teknologi dalam proses produksi, pelatihan, pendampingan dan evaluasi. Hasil kegiatan ini menunjukkan bahwa kedua mitra sasaran dapat menerapkan manajemen bisnis, pemasaran online (e-commerce), dan penerapan teknologi pengemasan dengan injeksi nitrogen dan penerapan produksi dengan pengering kubah surya untuk mengeringkan tambalan buram, yang sangat membantu saat musim hujan, mereka dapat melanjutkan produksi, dan ada peningkatan bisnis kedua mitra sasaran hingga mencapai 80%.

ABSTRACT

Community service activities in the national combination program are conducted in Waqf Village, Sukaratu Village, and Majasari Pandeglang District, with target partners of opaque food artisan groups and waqf farmer groups. The problem of the target partners is that neither partner has been able to implement business management, online marketing, or the application of innovation technology in standard production processes. The purpose of community service in the national service program is to improve the knowledge and skills of target partners in implementing business management, online-based marketing and the application of innovation technology in the production process. The method of activities in community service is socialization of national programs, application of technology in the production process, training, mentoring and evaluation. The results of this activity show that the two target partners can apply business management, online marketing (e-commerce), and the application of packaging technology with nitrogen injects and the application of production with a solar dome dryer to dry opaque fillings, which is very helpful during the rainy season, they can continue production, and there is an increase in the business of both target partners to reach 80%.

1. INTRODUCTION

The Kosabangsa Program is a funding program from the Directorate General of Higher Education through DRTPM to bridge collaboration in developing and applying science and technology produced by universities to be utilized for community needs. In particular, the Kosabangsa Program prioritizes underdeveloped and priority areas for extreme poverty, then called Kosabangsa priority areas (Hadi et al., 2024; Mujiono et al., 2023; Purbaningsih et al., 2023). The Kosabangsa program is carried out within a maximum activity period of 8 (eight) months. The Kosabangsa program prioritizes 4 (four) focus areas:

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food security, health independence, new renewable energy, and economic independence. The place of implementation of the Kosabangsa program is in Waqf Village (Opak Village), RT.01,02, RW.11, with a population of 222 people. 102 families are part of Sukaratu Village, Majasari District, Pandeglang Regency, Banten. Waqf Village is a rice field and plantation area that produces many palawijaya products, such as Rice, Bananas, Cassava, Coconut and melinjo (Najib, 2020; Putra & Hikmah, 2021; Rohmaningtyas, 2021). Waqf Village is categorized as a poor area because some of its people are members of the PKH group. In Waqf Village, two business groups need to be developed: the Opak Food Craftsman Group and the Waqf Farmer Group, which manage agricultural and plantation products.

First Partner: Opak Food Craftsman Group is an association of business actors who make opak food located in the Waqf Village, Sukaratu Village, Pandeglang Regency, which gets the nickname or designation "Opak Food Industry Village" because most of its residents, the majority of whom are mothers aged 30 to 50, are opak food makers, as a livelihood in helping the family's economic needs. This group is chaired by Ibu Askah, established in 2015, with approximately twenty active members, some of whom are residents of the Waqf village community of Sukaratu Village, Majasari Pandeglang District. First Partner Problem: the Opak Craftsmen group has not been able to implement the production process by the standard SOP for raw materials, has not been able to implement the drying process correctly, and the packaging of products that are not attractive and of high quality has not applied innovation technology. It has not been able to apply business management.

Second Partner: Waqf Farmer Group, which manages the business of agricultural products and plantations in the Waqf Village itself, as is known in Waqf village as an agricultural area that produces a lot such as rice, bananas, cassava, coconut and melinjo, then the Waqf Farmer Group processes into banana chips, cassava chips, emping melinjo and processed food made from rice and coconut. Second Partner Problem: members of waqf farmer groups have not been able to implement production processes and quality product packaging with SOP standards, have not been able to apply technology and innovation and have not been able to implement business management. Based on Figure 1 we can see the process of making opak is still traditional.



Figure 1. The Process of Making Opaque is Still Traditional

Solutions to partner problems: training and assistance in business management, training and assistance in information technology-based marketing (e-commerce) and training and assistance in applying innovative technology in the production, packaging and drying processes with solar dome tools. Previous research showed that most farmers in rice fields have implemented technological innovations in Legowo row systems intensively, and farmers in dryland villages are pretty intensive in implementing intercropping system innovations and processing agricultural products (on farms) (Aji et al., 2020; Effendy & Pratiwi, 2020; Fatchiya & Amanah, 2016; Saleh, 2022). The application of this technology is positively correlated with the food security condition of farmer households (Coulibaly et al., 2017; Ifeoma & Agwu, 2014). Farmers who apply technological innovation more intensively have a better level of food security (Garibaldi et al., 2017; Smith, 2013).

The purpose of community service in the kosabangsa program is to improve the knowledge and skills of target partners, in this case, opak artisans groups and farmer groups, in implementing business management, information technology-based marketing (e-commerce) and the application of innovation technology in the production, packaging and drying processes with solar dome tools, for opak slice dryers in the rainy season.

2. METHODS

This activity began with the socialization of community service activities, the kosabangsa program, the opak food craftsman group and the waqf farmer group. The purpose of this socialization is the hope that opak food artisan groups and waqf farmer groups can understand the purpose of the kosabangsa program community service activities so that the purpose of this kosabangsa program can help the activities of opak artisan groups and farmer groups in managing their businesses. Activities are aimed at opaque food artisan groups and waqf farmer groups, hoping that the opaque craftsman group and the waqf farmer group can apply business management in running their business. This activity aims to hope that opaque artisan groups and waqf farmer groups can apply innovative technology in running their businesses. The resource persons in this activity were Sigit Auliana, Jaka Wijaya Kusuma from Bina Bangsa University and Tjahja Muhandri Nugraha Edhi Suyatma from Bogor Agricultural University (IPB). Help during the rainy season, they can produce. In the application of marketing processed products from opaque artisan groups and waqf farmer groups, so far, the marketing carried out by the two partners only applies the conventional system if there are new orders for production and marketing at stalls or shops with a consignment system that has just been paid, thus affecting the sustainability of their business. With this problem, there is a need for information technology training with resource persons: Sigit Auliana and Jaka Wijaya Kusuma.

The empowerment of opaque artisan groups and farmer groups is essential. In community service activities in the national service program with the theme: Improving Packaging and Marketing of Local Products through the Application of Packaging Technology and Innovation to Increase Community Income in Opak Pandglang Village Banten, with evaluation and monitoring we can find out whether the training and mentoring program is successful or not, in this case the opak craftsman group and farmer group in the Waqf Village can apply business management, Online marketing (e-commerce) and the application of innovation technology in the production process.

3. RESULTS AND DISCUSSIONS

Results

Community service activities in the national program for fiscal year 2023 were carried out in Opak Village (Waqf), Sukaratu Village, Majasari District, Pandeglang Regency, Banten. Training and mentoring activities are carried out for one day, starting at 09 o'clock and going to 00 to 17.00, located at the house of Ibu Askah and Pak Depi Rosadi is the head of the opak craftsman group and the head of the Waqf farmer group. The theme of this service activity is Improving Packaging and Marketing of Local Products through the Application of Packaging Technology and Innovation to Increase Community Income in Opak Pandglang Village, Banten. Based on [Figure 2](#) we can see team conducting socialization activities for the national cooperation program.



Figure 2. The Implementation Team Conducting Socialization Activities

The first activity began with remarks from the opak craftsman group (Ibu Askah) and the head of the farmer group (Mr Depi Rosadi). The two heads of this group responded very positively to this activity. They hoped that this activity could help opaque food business actors and business farmer groups in the Waqf Village of Sukaratu Village further increase in terms of production, packaging, and marketing so that it can help in increasing sales and indirectly increase the income and economy of the Waqf village community itself. This activity invited speakers from Bina Bangsa University as the Kosabangsa Program Implementation Team and from the Kosabangsa Program Assistance Team of Bogor Agricultural University (IPB). Based on [Figure 3](#), we can see group photo with opaque artisan group and farmer group.



Figure 3. Group Photo with Opaque Artisan Group and Farmer Group

The second activity: Training and mentoring business management with Narasumber: Hadi Kurniawanto. In delivering his material, he said that the application of management is critical in managing businesses, including the business of opak food artisans and farmer groups in the waqf village. So far, the two groups running their businesses have not implemented management because it is a hereditary business from their parents, And they do not understand business management either. The members of the opaque artisan group are almost all mothers, aged between thirty and sixty years, with a background of education, primarily elementary school and junior high school. So, as presented in Figure 4, by looking at these conditions, there is a need for training and assistance in business management to improve the business's existence.



Figure 4. Training and Mentoring

The third activity: Training and assistance in applying information technology-based product marketing (e-commerce). So far, the marketing of products carried out by opaque artisan groups and waqf farmer groups is still conventional, so it has not been able to increase sales and affect the sustainability of their business. By looking at the conditions mentioned above, there is a need for training and assistance in marketing information technology-based products (e-commerce) with narasumber: Sigit Auliana, with the application of product marketing information technology, can be further increased.

The fourth activity: Training and assistance in the application of innovative technology with lecturers Sigit Auliana, Jaka Wijaya Kusuma (Bina Bangsa University) and Tjahja Muhandri Nugraha Edhi Suyatma (Bogor Agricultural University). In his material, some of the speakers above said there is a need for the application of innovation technology in producing a product in the hope that it can produce quality products. The technology applied in this activity is the application of product packaging using a packaging

machine with nitrogen injects and the application of production with a solar dome dryer to dry opaque slices. It is beneficial when facing the rainy season so far, opaque artisans have difficulty because they cannot produce opaque. In addition, the application of machines or tools for making banana and cassava chips is more practical which can produce more attractive chip slices. Based on [Figure 5](#), we can see solar Dome Innovation Technology application for drying opaque slices.



Figure 5. Solar Dome Innovation Technology Application for Drying Opaque Slices

Discussion

This research aims to improve the packaging and marketing of local products in Opak Village through the application of packaging technology and innovation, with the hope of increasing the income of the local community. The results showed that the application of packaging technology and innovation can have a positive impact on the packaging and marketing of local products, and has the potential to increase the income of the people in Opak Village. Some previous studies have also shown that the application of packaging technology and innovation can improve the packaging and marketing of local products ([Rahman & Nurdian, 2021](#); [Rundh, 2013, 2016](#); [Zam et al., 2019](#)). It is also supported by previous research that states that innovative packaging and digital marketing can increase income ([Amaliah & Lukum, 2022](#); [Hasanah et al., 2023](#); [Nuvriasari et al., 2023](#); [Saputra et al., 2022](#)). Other research that conducts packaging and marketing of local products is able to achieve maximum results through product packaging innovations and digital marketing ([Balasescu, 2023](#); [Makmun, 2020](#); [Marleny et al., 2022](#); [Prabawa & Fitriani, 2020](#); [Yudhanto et al., 2022](#)). Likewise, similar research argues that if product packaging innovation and digital marketing must be carried out because it follows the changing times and technological developments ([Purnomo & Purnomo, 2017](#); [Riwoe & Mulyana, 2022](#); [Sholicha & Oktafia, 2021](#)). This is in line with the findings of this study, which shows that packaging technology and innovation have the potential to increase the income of people in Opak Village through improved packaging and marketing of local products.

The implication / contribution of these findings to the development of the scientific field studied is to provide a better understanding of the importance of the application of packaging technology and innovation in improving the packaging and marketing of local products. These findings can form the basis for the development of further research in the field of packaging and marketing, as well as contribute to the development of more effective strategies and policies to increase people's incomes through local products. However, this study also has some limitations that need to be considered. First, this research was conducted in Opak Village, so the generalization of the results of this study is limited to that context. The results of this study may not be directly applicable to other areas with different characteristics. Based on these limitations, further research can be carried out by involving a larger sample and involving other regions to expand the generalization of research results. Research can involve other aspects such as marketing and branding strategies to gain a more comprehensive understanding of the packaging and marketing of local products.

4. CONCLUSION

Community service activities in the national service program with the theme: Improving Packaging and Marketing of Local Products through the Application of Packaging Technology and Innovation to Increase Community Income in Opak Pandglang Village Banten can be carried out well. Partners, in this case, opaque craftsman groups and waqf farmer groups, can work well together, where they are very enthusiastic during the training and mentoring. As a result, they can understand and apply business management information technology-based product marketing (e-commerce), and target partners can apply innovative technology in the production process, such as the use of presses with nitrogen injects and the application of production with solar dome dryers for Drying opaque slices, very helpful when facing the rainy season, so far opaque artisans have difficulty, because they cannot produce opaque.

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6. REFERENCES

- Aji, S. B., Sutiknjo, T. D., & Dinawati, E. (2020). Peranan Penyuluh Pertanian Terhadap Keberhasilan Penerepan Sistem Tanam Padi Jajar Legowo di Desa Pagung Kecamatan Semen Kabupaten Kediri. *Jurnal Agrinika: Jurnal Agroteknologi Dan Agribisnis*, 4(2), 197–211. <https://doi.org/10.30737/agrinika.v4i2.1075>.
- Amaliah, T., & Lukum, A. (2022). Peningkatan Ekonomi Produktif Istri Nelayan Melalui Literasi Pemasaran Digital Dan Inovasi Kemasan Limbah Sampah Plastik. *Mopolayio: Jurnal Pengabdian Ekonomi*, 1(3), 162–172. <https://doi.org/10.37479/mopolayio.v1i3.35>.
- Balasescu, M. (2023). Innovative marketing strategies in the field of packaging for organic food products. *Journal of Research Administration*, 5(2). <https://journalra.org/index.php/jra/article/view/1142>.
- Coulibaly, J. Y., Chiputwa, B., Nakelse, T., & Kundhlande, G. (2017). Adoption of agroforestry and the impact on household food security among farmers in Malawi. *Agricultural Systems*, 155, 52–69. <https://doi.org/10.1016/j.agsy.2017.03.017>.
- Effendy, L., & Pratiwi, S. D. (2020). Tingkat adopsi teknologi sistem jajar legowo padi sawah di Kecamatan Cigasong Kabupaten Majalengka. *Agrica Ekstensia*, 14(1). <https://doi.org/10.55127/ae.v14i1.44>.
- Fatchiya, A., & Amanah, S. (2016). Penerapan Inovasi Teknologi Pertanian dan Hubungannya dengan Ketahanan Pangan Rumah Tangga Petani. *Jurnal Penyuluhan*, 12(2), 190–197. <https://doi.org/10.25015/penyuluhan.v12i2.12988>.
- Garibaldi, L. A., Gemmill-Herren, B., D'Annolfo, R., Graeub, B. E., Cunningham, S. A., & Breeze, T. D. (2017). Farming approaches for greater biodiversity, livelihoods, and food security. *Trends in Ecology & Evolution*, 32(1), 68–80. <https://doi.org/10.1016/j.tree.2016.10.001>.
- Hadi, S., Gunawan, G., Setiawan, D., Nastiti, K., Noval, N., Yusri, Y., & Wijaya, E. S. (2024). Pendampingan Pengolahan Nira Pohon Nipah dalam Diversifikasi usaha GKN bersujud Tanahbumbu pada Program Kosabangsa. *Indonesia Berdaya*, 5(1), 311–316. <https://doi.org/10.47679/ib.2024704>.
- Hasanah, U., Winarti, I., & Puteri, D. R. A. (2023). Inovasi Kemasan Dan Pemasaran Ukm Kerupuk Pattola Untuk Meningkatkan Pendapatan Desa Gadingsari. *Agrifo: Jurnal Agribisnis Universitas Malikussaleh*, 8(1), 25–35. <https://ojs.unimal.ac.id/agrifo/article/view/11454/4941>.
- Ifeoma, I., & Agwu, A. (2014). Assessment of Food Security Situation among Farming Households in Rural Areas of Kano State, Nigeria. *Journal of Central European Agriculture*, 15(1), 94–107. <https://doi.org/10.5513/jcea.v15i1.2443>.
- Makmun, S. (2020). Pelatihan Pengemasan Dan Pemasaran Produk Secara Digital. *Majalah Ilmiah Pelita Ilmu*, 3(2), 170–187. <https://doi.org/10.37849/mipi.v3i2.199>.
- Marleny, F. D., Maulida, I., Ansari, R., Ningrum, A. A., Elfirman, M. Z., Windarsyah, W., & Mambang, M. (2022). Pemanfaatan Media Sosial Untuk Pemasaran Produk Lokal Industri Rumah Tangga Di Kelurahan Sungai Andai. *Jumat Informatika: Jurnal Pengabdian Masyarakat*, 3(1), 48–53. https://doi.org/10.32764/abdimas_if.v3i1.2533.
- Mujiono, M., Andriani, E., Prasetya, A., Sumartono, E., Ganefianti, D. W., Sulistyowati, E., & Zarkani, A. (2023). Utilization of waste empty palm oil bunches as a medium for seeding and nursery for UNIB hybrid chilies. *Community Empowerment*, 8(11), 1802–1809. <https://doi.org/10.31603/ce.10483>.
- Najib, M. A. (2020). Pemberdayaan Ekonomi Masyarakat Desa Melalui Manajemen Aset Wakaf Berbasis

- Skim Mudhorobah dan Ijarah. *Al-Awqaf: Jurnal Wakaf Dan Ekonomi Islam*, 13(2), 95–108. <https://doi.org/10.47411/al-awqaf.v13i2.108>.
- Nuvriasari, A., Wicaksono, G., Nartanti, L., Andriani, K. M., & Yulianto, E. (2023). Online Marketing and Packaging Innovation to Increase Purchase Intention in MSMEs “GIG’S BATIK” Yogyakarta. *Asian Journal of Community Services*, 2(8), 671–682. <https://doi.org/10.55927/ajcs.v2i8.5686>.
- Prabawa, H. W., & Fitriani, A. D. (2020). Mempertahankan Eksistensi Jamu Tradisional melalui Perubahan Desain Pengemasan dan Pemasaran. *DEDIKASI: Community Service Reports*, 2(1), 35–46. <https://doi.org/10.20961/dedikasi.v2i1.35848>.
- Purbaningsih, Y., Rahman, I., Triani, N., Baba, S., Dagong, M. I. A., Naim, Z., & Sisi, L. (2023). Pemberdayaan Masyarakat Pengolah Gula Aren Menuju Kemadirian Ekonomi dan Berdaya Saing di Desa Lamondape Kecamatan Polinggona Kabupaten Kolaka. *Jurnal Pengabdian Multidisiplin*, 3(2), 1–12. <https://doi.org/10.51214/japamul.v3i2.676>.
- Purnomo, B., & Purnomo, B. R. (2017). Pengembangan Produk dan Inovasi Produk pada Teh Hijau Cap Pohon Kurma (Studi pada PT Panguji Luhur Utama). *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, 6(2), 27–35. <https://doi.org/10.30588/jmp.v6i2.300>.
- Putra, T. W., & Hikmah, N. (2021). Strategi Pengelolaan dan Pemanfaatan Tanah Wakaf Desa Sumpang Mango Kabupaten Sidenreng Rappang. *At-Tahtzib: Jurnal Studi Islam Dan Muamalah*, 9(1), 1–7. <https://ejournal.kopertais4.or.id/mataraman/index.php/tahtzib/article/view/4359>.
- Rahman, T., & Nurdian, Y. (2021). Pendampingan Pemanfaatan Teknologi Digital Untuk Meningkatkan Pemasaran Toko Roti Di Pabian Sumenep. *Dinamisia: Jurnal Pengabdian Kepada Masyarakat*, 5(3), 645–650. <https://doi.org/10.31849/dinamisia.v5i3.4727>.
- Riwoe, F. L. R., & Mulyana, M. (2022). Pendampingan Penggunaan Social Media Marketing Bagi UMKM Kota Bogor. *Jurnal Abdimas Dedikasi Kesatuan*, 3(1), 25–32. <https://doi.org/10.37641/jadkes.v3i1.1389>.
- Rohmaningtyas, N. (2021). Wakaf Dan Bencana Alam di Indonesia. *ADILLA: Jurnal Ilmiah Ekonomi Syari’ah*, 4(2), 82–91. <https://doi.org/10.52166/adilla.v4i2.2520>
- Rundh, B. (2013). Linking packaging to marketing: how packaging is influencing the marketing strategy. *British Food Journal*, 115(11), 1547–1563. <https://doi.org/10.1108/BFJ-12-2011-0297>
- Rundh, B. (2016). The role of packaging within marketing and value creation. *British Food Journal*, 118(10), 2491–2511. <https://doi.org/10.1108/BFJ-10-2015-0390>.
- Saleh, K. (2022). Respon Petani Padi Sawah terhadap Program Budidaya Padi Sistem Jajar Legowo di BPP Tegalkunir, Kabupaten Tangerang. *Jurnal Penyuluhan*, 18, 196–207. <https://doi.org/10.25015/18202239868>.
- Saputra, M., Sari, N., Rafiq, M., & Rahmawati, L. (2022). Pelatihan Inovasi Produk serta Strategi Pemasaran pada UMKM Bubuk Jahe di Masa Pandemi Covid 19. *To Maega: Jurnal Pengabdian Masyarakat*, 5(1), 142–149. <https://doi.org/10.35914/tomaega.v5i1.977>.
- Sholicha, N., & Oktafia, R. (2021). Strategi Pemasaran dalam Upaya Peningkatan Omset Penjualan UMKM Desa Sumber Kembar, Kecamatan Pacet, Kabupaten Mojokerto. *Jurnal Ilmiah Ekonomi Islam*, 7(2), 1156–1165. <https://doi.org/10.29040/jiei.v7i2.2286>.
- Smith, P. (2013). Delivering food security without increasing pressure on land. *Global Food Security*, 2(1), 18–23. <https://doi.org/10.1016/j.gfs.2012.11.008>.
- Yudhanto, F., Anugrah, R. A., & Wijaya, O. (2022). Pelatihan Pengemasan Dan Pemasaran Produk Umkm Masyarakat Di Desa Wates Kulon Progo. *Diseminasi: Jurnal Pengabdian Kepada Masyarakat*, 4(1), 61–66. <https://doi.org/10.33830/diseminasiabdimas.v4i1.1833>.
- Zam, W., Ilyas, I., & Syatrawati, S. (2019). Penerapan teknologi pascapanen untuk meningkatkan nilai jual cabai di tanatoraja. *Jurnal Dedikasi Masyarakat*, 2(2), 92–100. <https://doi.org/10.31850/jdm.v2i2.407>.