



# Increased Production, Waterglass Roll Saving Dyeing Efficiency, Branding Strategy, and Digital Marketing in Muara Bungo Mulia Batik

Nanik Istianingsih<sup>1</sup>, Ariyanto M<sup>1</sup>, Zulkifli<sup>1</sup>, Poiran<sup>2</sup>, Rianto<sup>1</sup>

<sup>1</sup> Bisnis Digital, Fakultas Ekonomi dan Bisnis, Institut Administrasi dan Kesehatan Setih Setio Muara Bungo, Indonesia

<sup>2</sup> Ilmu Administrasi Negara, Fakultas Administrasi, Institut Administrasi dan Kesehatan Setih Setio Muara Bungo, Indonesia

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Corresponding Author:

Nanik Istianingsih

[nanikistianingsih1324@gmail.com](mailto:nanikistianingsih1324@gmail.com)

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**Abstract:** Batik is a cultural heritage of the Indonesian nation that has been recognized by the world through recognition by UNESCO. The development of Bungo Batik began during the national event, Indonesia Fashion Craft in Makassar in 2002. The demand for Bungo Batik increases every year because it is supported by the policies of the Bungo Regency Regional Government. But on the one hand, the obstacle is precisely the craftsmen themselves who are not able to produce on a large scale. The partner in this activity is Batik Mulia which was established in 2021. The limited production capacity of Bungo batik is because the equipment used is still very simple, such as the use of waterglass in the manual batik dyeing process so that it is wasteful and immeasurable. In addition, partners also need training in management, entrepreneurship, branding strategies and the use of digital marketing. The method of implementing the activity begins with an agreement between the service team and partners to solve problems. The solution offered by the team to partners is the procurement of appropriate technological tools in the form of Roll Saving Water Glass machines and several trainings needed by partners. The success of this activity can be seen by several positive impacts from the savings or efficiency of the use of water glass in batik dyeing, increasing batik production, and improving partner skills in online promotion, creating marketing content and using digital marketing.

**Keywords:** Increased production; Efficiency; Branding strategy; Digital marketing

## Introduction

Batik is a cultural heritage of the Indonesian nation that needs to be preserved and developed (Kusumasari & Rahmi, 2020; Wang, 2019). Batik is not only recognized in Indonesia but has been recognized by the world through recognition by UNESCO on October 2, 2009 (Setiawan et al., 2019). With this recognition, it has a positive impact on the batik industry in the country (Asyhari et al., 2018).

Not only in areas that have a history of batik such as in Java, now new centers have grown spread throughout the country, even to Papua (Kwanda et al., 2019). The development of batik in Jambi Province is developing in the Kerinci, West Tanjung Jabung, East Tanjung Jabung, Sarolangun, Bangko, Bungo, Muara

Jambi, and Batang Hari areas. And of course, with the unique characteristics of the motif design, patterns, and colors used from each of these regions. The development of Batik Bungo began during the national event, Indonesia Fashion Craft in Makassar, South Sulawesi on November 6 to 11, 2002 (Samtidar & Rosid, 2021).

The motif on Bungo batik is created from the form of flora in the area. The shape of the flora seems to be a depiction of natural wealth that provides many benefits to its people. Apart from that, the form produced in the motif is inseparable from the existing cultural elements of the area (Basri et al., 2023; Shahrudin et al., 2021; Wahed et al., 2022).

This service activity is a downstream of the Domestic Cooperation Research Grant (PKDN) received by the Beginner Community Empowerment

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Community Service Team (PKM PMP) in 2023 (<http://repository.upiypk.ac.id/9421/>). From the research, the PMP Team has been able to identify Bungo batik motifs that have been produced from 34 Bungo batik craftsmen. The partner in this activity is one of the groups of batik craftsmen in Bungo Regency who already has a business brand, namely Batik Mulia which was founded by Mrs. Winda Maslina or familiarly called Mrs. Win in 2021. According to Mrs. Win, actually the demand for Bungo Batik every year increases because it is supported by the policy of the Bungo Regency Regional Government which requires all employees to wear batik every Thursday and at certain events. In addition, the government is aggressive in promoting Batik.

But on the one hand, the obstacle is precisely the craftsmen themselves who are not able to produce on a large scale. Mrs. Win in running her business is assisted by 5 batik craftsmen and 2 children of Mrs. Win who are still in high school and another is in college. To produce printed Bungo Batik in 1 day, it can produce 3-5 pieces of fabric (standard size 2 meters), depending on the weather during drying. However, for Bungo batik, one piece of cloth is done within 3 days.



Figure 1. PMP Team's Observations on Partners

Limited production capacity of Bungo batik because the equipment used is still very simple. One of the causes of high production costs is due to the use of waterglass in the batik dyeing process. Waterglass or also known as Sodium Silicate or Solubel Glass is a substance that functions to strengthen and lock the color of batik. So far, batik artisans in Bungo use waterglass in a traditional way, which is mixed directly with colors so that its use is wasteful, not measured clearly and does not lock the color optimally. This has an impact on the price of Bungo batik products which are more expensive when compared to written batik from other regions, especially Javanese batik. Another obstacle is that the production has not been able to receive orders in a large capacity, because it does not have efficient technology to save the use of waterglass, the price of waterglass itself is quite

expensive per barrel can reach Rp.1,500,000,- not including shipping costs from the Java area.



Figure 2. Staining Process



Figure 3. Fabric Boiling Process



Figure 4. Batik Spraying Process



Figure 5. Batik Drying Process

For Partners who have small capital, they usually buy waterglass by retailing to other artisans who buy waterglass in large quantities, of course the price is much more expensive and automatically the production cost is much higher. Thus the saving of waterglass in the dyeing process will reduce the production costs that



must be incurred by the craftsmen, and in the end the market demand will be quickly met and the production capacity will be larger, so it is necessary to introduce waterglass saving technology to the craftsmen to improve their skills in the batik dyeing process. Based on the analysis of the problem, the roll saving tool can be used to lock the color of Bungo batik. The existence of roll saving tools also has an impact on production costs that are getting cheaper.

## Method

The models offered to overcome problems in the production, management and marketing of Bungo Batik for partners include the procurement of appropriate technology tools in the form of roll saving water glass machines and training for partners.

Monitoring is a monitoring activity to obtain information continuously so that the results are in accordance with the goals that have been set. Evaluation is an assessment activity at the end of the activity to see the achievements of the program carried out. Looking at this definition, the PMP Team seeks to monitor and evaluate at several stages, namely: (1) Planning Stage, including observation and survey of partner locations, (2) Implementation Stage, including production implementation activities, mentoring, providing assistance in the form of needed equipment, management training, entrepreneurship, marketing and branding strategies, (3) Post-Implementation Stage, including post-implementation activities at least 1 month after the program is completed and if possible, extend the monitoring time to gain the independence of partners as independent entrepreneurs. The stages of PMP implementation can be seen at Figure 6.



Figure 6. Activity Stage Scheme

## Result and Discussion

### Implementation of PKM Activities

In the implementation of community service, the PMP PKM Team together with partners have made a design of a Roll saving machine which will later be used by partners in locking batik dyeing. After getting a workshop to produce the machine, the machine produced is as shown in the following picture:



Figure 7. Team and Partner with Roll Saving Machine

Roll saving adalah sebuah alat pewarna batik yang di Designed in such a way to save the use of waterglass and be able to lock the color of batik, Roll Saving has four parts, namely; (1) the first part is a tub or container containing waterglass at the bottom; (2) the second is the roller support pole part made of steel rods which is useful for supporting the roller; (3) the third part is the gear that functions to connect the roller with the lever of the batik fabric to be dyed; (4) Finally, the fourth is the board located on the front of the roll saving function to accommodate the fabric that has been finished dyeing.

The way the roll saving tool works is: (1) insert the waterglass into the reservoir at the bottom; (2) insert the written batik cloth to be dyed by inserting it on both rollers; (3) rotate the roller using a lever that will connect the gear with the roller, so that the fabric is completely dyed into the waterglass and perfectly flat; (4) let it sit for 1 minute, then turn the lever connecting the roller to take out the written batik cloth; (5) Place the written batik cloth that has been given waterglass on the plastic bag that has been provided, close tightly for up to one hour so that it is not exposed to the wind.

Some of the trainings carried out by the PMP PKM Team are not only to partners but also involve batik craftsmen who are around the partner's residence. This is intended so that partners can become pioneers for other batik craftsmen and be able to provide motivation for arjins to be more active. The following types of training provided by the service team:

**Table 1.** Types of Training by the PMP PKM Team

Training	Date	Presenters
Management and Entrepreneurship	August 12, 2024	Dr. Nanik Istianingsih, S.E., M.E Ariyanto., M. Si
Batik Dyeing	August 24, 2024	Rustam Efendi, S.P., M.Si
Promotion and Branding Strategy	August 31, 2024	Dr. Nanik Istianingsih, S.E., M.E Zulkifli, S. Kom., M. Kom
Creation of <i>web blogs</i> and Online Stores	9 September 2023	Zulkifli, S. Kom., M. Kom Rianto

From the implementation of Management and Entrepreneurship training, partners can increase motivation in entrepreneurship and can be able to mature management concepts, especially in production management. This is in line with the service and research activities carried out by Hendriadi et al. (2019), Rozmi et al. (2021), and Wei & Duan (2024).

Batik dyeing training using Roll Saving has been able to improve the skills of partners in the dyeing process, so this can increase production. This is in line with the service carried out by several previous researchers (Qurrata et al., 2020; Siswiyanti & Rusnoto, 2018; Suprpto, 2019).



**Figure 9.** Partner Product Catalog Content



**Figure 8.** Partners are already skilled in using Roll Saving Machines



**Figure 10.** Partner Product Catalog Content



**Figure 11.** Partner Product Catalog Content

Meanwhile, in the training on Promotion Strategy, Branding Strategy and Online Store Creation, partners still need time to apply it, due to limited knowledge and skills in the use of information technology. However, partners are assisted by their children who are capable in technology, so this training still has an impact on partners. The positive impact of online marketing training, promotion strategies, branding strategies, and digital marketing has also been carried out in previous service (Hati et al., 2022; Samtidar & Rosid, 2021; Utomo & Susanta, 2020).

From this service activity, of course, it has a positive impact on the development of partner businesses. These impacts include:



**Table 2.** Impact of Activities for Partners

Problem	Previous Conditions	After the Activity
Uses of Water Glass	1 Gallon = 60 pieces of fabric	1 Gallon = 100 pieces of fabric
Production Sales	10 pieces of fabric Conventional	30 sheets of fabric Conventional and digital marketing
Branding	Not yet optimal	Products are better known to the public

After the implementation of the training, the service team evaluates and monitors the partners. From the results of the monitoring, there are several obstacles faced by partners, including: (1) Partners are still unskilled in the use of digital marketing; (2) Partners are still not skilled in creating online marketing content. The evaluation carried out obtained several agreements as a result of discussions with partners to solve problems, namely adding training in content creation and digital marketing.

## Conclusion

This novice community service activity has been successfully implemented. This success can be seen by several positive impacts of these activities, including saving or efficient use of water glass in batik dyeing, increasing batik production, improving partner skills in online promotion, creating marketing content and using digital marketing. Partners have also fully participated in participating in this service activity from the beginning of observation to the service evaluation stage. In addition to these activities, business development proposals also need to continue. In this case, partners still need training in creating marketing content and improving technological skills in the use of digital marketing.

Partners are expected to continue to develop their businesses by utilizing appropriate technology that has been handed over by the PKM Team. In addition, partners should continue to develop skills in the use of marketing technology such as digital marketing so that the market reach is wider.

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