

PROMOTING THE COMPETITIVENESS OF TASIKMALAYA UMKM THROUGH STRATEGIES FOR PRODUCT INNOVATION DEVELOPMENT

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ABSTRACT

This program aims to improve the competitiveness of Micro, Small, and Medium Enterprises (MSMEs) in Tasikmalaya through product innovation development strategies. This program adopts an interdisciplinary approach that includes several stages, from identifying needs to evaluating performance. The main activities carried out include local potential analysis, technical and managerial skills training, innovation assistance, and product evaluation. The results achieved from this program include innovative product prototypes, publication of scientific articles, video documentation, and draft Intellectual Property Rights (IPR). This program proves that collaboration based on science and technology can empower MSMEs, encourage the development of more competitive products, and support sustainable local economic development.

Keywords: *MSMEs, Product Innovation, Marketing Strategy, Economic Empowerment*

INTRODUCTION

Tasikmalaya is recognized as the hub of the creative economy in East Priangan, due to its abundant arts, culture, and natural resources. Numerous representative goods, including Payung Geulis, Kelom Geulis, Tasik batik, and mendong crafts, constitute cultural heritages of significant creative worth. Nonetheless, these items encounter significant hurdles in contemporary times. A significant number of MSMEs in Tasikmalaya continue to depend on conventional manufacturing techniques inherited through generations, lacking innovation to adapt to market advancements (Sunarti et al, 2023). Consequently, product competitiveness diminishes, rendering numerous local products merely ornamental rather than fulfilling market demands. Product innovation is essential for enhancing competitiveness by developing distinctive, efficient, and high-quality products (Trulline, 2021; Kim & Mauborgne, 2015).

Tasikmalaya, including 40% of the East Priangan region and supported by a population of 719,000, possesses significant potential for local economic advancement (Nursobah, 2009). Nonetheless, restricted access to technology, resources, and efficient marketing tactics are the primary impediments to the development of MSMEs. Product innovation is crucial not only for generating new offerings but also for sustaining the relevance of established items in the global marketplace. Literature reviews indicate that innovation enhances the competitiveness of MSMEs by developing distinctive, efficient, and high-quality products (Trulline, 2021; Marselina, et al., 2024). This community service initiative seeks to address these difficulties through an interdisciplinary methodology. Prior studies suggest that innovation-driven training can accelerate the adaptation of MSMEs to market fluctuations (Kotler & Keller, 2016). This methodology comprises cooperation within the fields of management, product design, and

communication, emphasizing training, mentoring, and network cultivation. Consequently, this program not only offers immediate answers but also enhances the potential of MSMEs to pursue autonomous development in the future.

This initiative encompasses five MSMEs that encounter diverse issues important to their respective industries. Gudang Domba Tasikmalaya, a sheep farming micro, small, and medium enterprise formed in 2020, specializes in the production of meat, wool, and ornamental skulls or horns. They encounter difficulties due to the spread of livestock diseases such as FMD and the use of non-ergonomic work equipment, which limits labor efficiency and the overall quality of livestock products. In the meantime, Crispy Baby Fish Mr.O, an MSME that has been processing tilapia into crispy fish snacks since 2014, encounters challenges due to unattractive packaging design and undesirable social media promotion (Adityanto et al, 2023), which hinder its competitiveness and market reach.

In the realm of traditional arts, Angklung Do Re Mi, established in 2010, has encountered challenges such as elevated humidity in the production area that compromises bamboo quality, insufficient modern equipment, and a shortage of skilled laborers. Halona Handicraft, an MSME established in 2015, specializes in the creation of bags crafted from natural materials including pandan and mendong. It has hurdles like consumer unfamiliarity with natural products, a labor-intensive manual production technique, and intense market competition. DSR Leatherwork, a leather artisan founded in 2015, addresses the challenges of inconsistent production tool management and constrained workspace, which diminish the efficiency and productivity of their operations.

These issues substantially affect the discontinuation of an MSME's operations. Inadequate work efficiency, decreasing product quality, and challenges in market expansion are the main challenges that must be addressed. Resolving these issues will enhance product quality and production efficiency, while also boosting competitiveness and broadening market reach. Through product design innovation, enhanced management methods, and optimized marketing, these MSMEs are anticipated to sustain their operations while positively influencing the local economy.

METHOD OF IMPLEMENTATION

This program employs an interdisciplinary methodology, facilitating collaboration among fields such as management, product design, and communication, with an emphasis on the sustainable empowerment of MSMEs (Marselina et al., 2024). The use of problem-solving models, social engineering, and policy proposals in both educational and non-educational sectors can profoundly influence the corporate realm, industry, and broader community. Innovations derived from research in this domain can directly tackle numerous difficulties encountered by MSMEs and the community. This problem-solving methodology can be utilized to enhance efficiency, productivity, and wellbeing through a suitable technology-based approach and practical solutions. Here are five instances of the implementation of problem-solving frameworks inside MSMEs and the broader community:

- a) Packaging redesign and social media optimization exemplify problem-solving strategies pertinent to MSMEs in enhancing their market competitiveness. By employing social engineering that promotes aesthetically appealing designs and digital marketing, MSME participants can leverage social media to expand their market reach. Policy proposals that facilitate training in packaging design and digital marketing will enable more MSMEs to leverage this potential, so directly enhancing sales and fortifying their industry standing (Kasman et.al, 2024).
- b) The development of production aids, such ketapang seed cake molding tools and tofu cutting implements, represents a problem-solving approach that offers tangible solutions to the production efficiency challenges faced by MSMEs. This technical advancement enables commercial entities to enhance production with constrained resources (Teece, 2018). Policy proposals aimed at fostering the development of production aids for MSMEs can enhance the use of this technology, promote social engineering that augments production capacity, and enable more small enterprises to function more efficiently.
- c) The development of equipment, such as non-electric dehumidifiers, to uphold product quality constitutes a problem-solving paradigm aimed at overcoming the difficulties associated with storage quality maintenance. This technology offers a viable alternative that MSMEs can apply without incurring substantial operational expenses. Education on environmentally sustainable technologies and legislation promoting energy-efficient practices can assist MSMEs in minimizing losses and preserving product quality, hence enhancing corporate sustainability (Prashar, 2019).
- d) The development of goods that facilitate the orderly arrangement of manufacturing tools, such as storage racks, exemplifies a problem-solving approach that enhances spatial efficiency and productivity. Policy proposals that enhance MSME access to design and space management solutions would promote the adoption of improved organizational models among business entities. Employing an appropriate rack design enables MSMEs to mitigate disorder in the production process, enhance output, and diminish production faults (Rambe et al, 2022).
- e) Developing items that enhance the efficiency of livestock personnel, such as medicine storage vests, directly influences productivity in the livestock industry. Social engineering that promotes innovation in instruments enhancing the efficiency of field workers can be more broadly implemented through regulations that facilitate the adoption of suitable technologies in the livestock sector. This concept enables farmers to enhance animal health and productivity, thereby improving their welfare.

Through the strategic use of this problem-solving methodology, MSMEs and the broader community can surmount diverse operational obstacles and enhance their company performance, thereby making a substantial contribution to economic growth and social welfare. The program is executed in five primary phases, aimed at delivering a holistic solution for MSMEs:

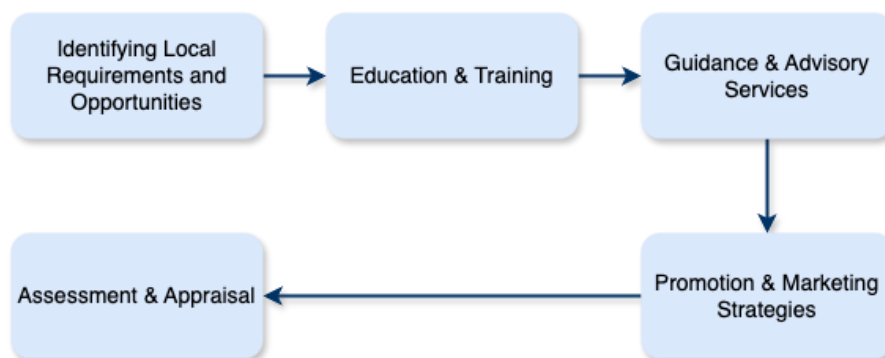


Figure 1. Five Primary Phases of Program Implementation

Source: Author's personal documentation (2024)

The project involves collaboration with five unique UMKM (Micro, Small, and Medium Enterprises) in Tasikmalaya, each facing specific challenges in their industries. To address these, a multi-faceted approach was implemented, involving identifying local requirements, providing education and training, offering guidance and mentorship, and enhancing promotion and marketing strategies. Through a comprehensive approach that combines innovation, training, mentorship, and strategic marketing, the program aimed to resolve critical issues for each MSME. By improving operational efficiency, product quality, and market access, this initiative not only strengthened the individual MSMEs but also contributed to the sustainability of the local economy. These efforts positioned the enterprises for long-term growth and expanded their reach to broader, more competitive markets.

1. Identifying Local Requirements and Opportunities

The preliminary survey indicated local requirements, emphasizing design innovation and digital marketing (Prasetyo & Surachman, 2020). Initially, a survey and comprehensive analysis were performed to ascertain the requirements of MSMEs in Tasikmalaya. This study encompasses market analysis, prevailing design trends, and challenges encountered by MSMEs in the production and marketing of products. It was determined that numerous MSMEs require innovation in design and expanded market access. For instance, Gudang Domba Tasikmalaya requires ergonomic tools and improved disease management to sustain livestock health, while Crispy Baby Fish Mr.O needs more visually appealing packaging and effective promotional strategies. Market analysis also revealed that eco-friendly and culturally significant products, like those made by Angklung Do Re Mi, have strong potential if quality and production consistency are improved.

2. Education and Training

The program encompasses critical subjects, like modern design methodologies that integrate classic and contemporary components, product quality management to enhance competitiveness, and successful marketing methods utilizing social media and e-commerce platforms. The program aims to enhance technical proficiency, encompassing contemporary design methodologies and e-commerce marketing methods (Schilling, 2020). This program underscores the significance of eco-friendly and sustainable design.

- *Design Methodologies:* Training MSME like Halona Handicraft in integrating traditional and contemporary elements to create innovative products that resonate with modern consumers.

- *Quality Management*: Helping producers like DSR Leatherwork improve operational efficiency and maintain consistent quality through organized production setups.
- *E-commerce and Digital Marketing*: Enabling MSMEs to use platforms like Shopee or Instagram effectively to increase visibility and sales. This training emphasized eco-friendly and sustainable design practices, aligning with global trends to appeal to a broader market.

3. Guidance and Advisory Services

Currently, MSMEs obtain direct support from specialists and mentors proficient in product design and business management. Intensive mentorship is employed to guarantee the successful execution of novel concepts (Dhewanto et al., 2018). Furthermore, establishing networks with external partners, including wholesalers and e-commerce platforms, facilitates broader access to the worldwide market (Osterwalder & Pigneur, 2010; Sinaga & Lestari, 2023). This program provides comprehensive advice to assist MSMEs in generating creative concepts and devising practical, measurable implementation plans.

4. Network Expansion and Cooperation

This initiative emphasizes the establishment of collaboration networks between MSMEs and diverse external entities, including raw material suppliers, distributors, and e-commerce platforms. This partnership seeks to expand market access and promote local products internationally. Moreover, cultivating partnership networks is essential for market expansion and fostering local economic sustainability (Tambunan, 2019; Yunus, 2017). Specialists provided tailored support in improving product design and optimizing business strategies. For Gudang Domba Tasikmalaya, this included implementing disease prevention methods and optimizing production flows. Mentors also facilitated connections with wholesalers and e-commerce platforms, ensuring broader market reach for products like those from Angklung Do Re Mi. This mentorship aimed to ensure practical and measurable implementation of innovative concepts while boosting technical and business acumen.

4. Promotion and Marketing Strategies

This program supports in enhancing product visibility through the use of social media and e-commerce platforms. MSMEs are given directions to develop targeted and successful marketing plans by considering the attributes of the target market and employing efficient digital marketing techniques. By employing social media and e-commerce, MSMEs like Crispy Baby Fish Mr.O could reach younger audiences through creative digital campaigns. Each MSME developed targeted marketing plans, focusing on the specific attributes of their products and target markets. For instance, Angklung Do Re Mi highlighted its cultural heritage to appeal to both local and international consumers.

5. Assessment and Appraisal

In the last phase, the generated product prototype is subjected to market testing to verify its efficacy in enhancing the competitiveness of MSMEs. The assessment includes Consumer feedback and product evaluation to ensure alignment with market demands. Analysis of market acceptance to refine product designs and improve competitiveness. For example, the ergonomic design solutions for Gudang Domba Tasikmalaya were assessed to validate their impact on worker safety and productivity.

RESULTS AND DISCUSSION

The program delivered numerous significant outputs, including a prototype of an innovative product that was effectively tested and positively appreciated by the local market. This product exhibited enhanced competitiveness due to a design influenced by classical characteristics, however tailored to contemporary market demands (Porter, 2008). The implementation of suitable technology is an excellent approach for enhancing community welfare, particularly within the MSME and livestock sectors. This technology aims to deliver tangible advantages for small business stakeholders, enhancing efficiency, productivity, and product quality. Innovations, including packaging redesign, manufacturing aids, and product quality control, demonstrate that suitable technology not only ensures company continuity but also significantly enhances individuals' standard of living.

a. Redesign of Packaging and Optimization of Social Media

Research focused on how packaging redesign can enhance the attractiveness of items for MSMEs. Enhanced and informative packaging design can more effectively capture consumers' attention. Furthermore, studies on social media optimization offer techniques for MSMEs to efficiently sell their products on digital channels, hence enhancing visibility and sales (Pranata et al, 2024). The redesign of packaging and optimization of social media stem from research that use graphic design and consumer psychology to develop appealing packaging aligned with market preferences.

Through the application of digital marketing technologies, MSMEs can enhance social media utilization to elevate the awareness of their products. Art elements are utilized to establish a robust brand identity through compelling images that convey the product's value and distinctiveness (Hidayani & Arief, 2023).



Figure 2 Packaging Redesign

Source: Author's personal documentation (2024)

Redesigning packaging and optimizing social media are effective strategies that assist MSMEs in enhancing the competitiveness of their products in the marketplace. By enhancing appealing and professional packaging designs and leveraging digital platforms like social media for marketing, MSMEs can engage a broader consumer base (Pranowo et al, 2024). This technology enhances the awareness of local products and offers more income opportunities, so directly contributing to the welfare of small business stakeholders.

b. Creating Production Equipment

The research outcomes that yielded production equipment, including ketapang seed cake molding tools, tofu cutting tools, and briquette molding and cutting tools, are highly advantageous for MSMEs. These instruments enhance manufacturing efficiency, lower operational costs, and improve product quality. Utilizing appropriate tools enables MSMEs to enhance productivity while reducing time expenditure. The production of equipment like ketapang seed cake molding tools and tofu cutting tools integrates expertise in mechanical engineering and product design, guaranteeing the tools' efficiency and safety.

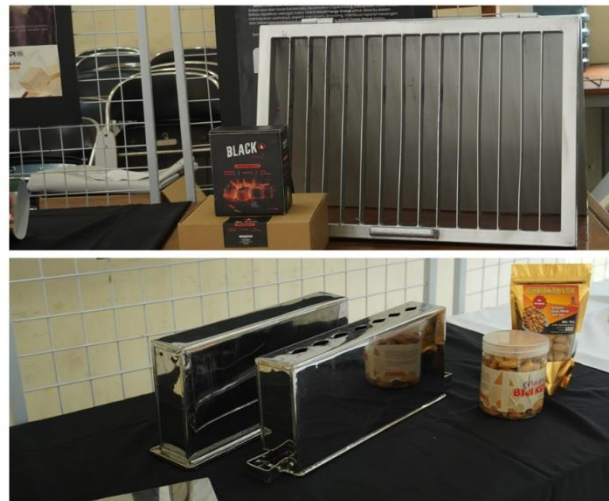


Figure 3 Bricket Cutting Tool & Molding Tool

Source: Author's personal documentation (2024)

Basic manufacturing technology is utilized to fabricate tools with accuracy, while ergonomic design is employed to develop tools that are comfortable for prolonged use, hence enhancing MSME productivity. The manufacturing of aids like ketapang seed cake molding tools and tofu cutting tools exemplifies appropriate technology that enhances MSME production efficiency. Utilizing these technologies, commercial entities can manufacture a greater quantity of things in less time and with diminished effort, therefore enhancing productivity and lowering production expenses. Consequently, the incomes of MSME participants rise, enabling them to develop their enterprises, so enhancing their welfare and that of their families.

c. Developing Equipment to Uphold Product Quality

Research that develops tools to preserve product quality, such as non-electric dehumidifiers for the preservation of *angklung*, exemplifies the application of technological innovation to address specific challenges encountered by MSMEs. By upholding product quality, MSMEs may guarantee customer pleasure and mitigate losses from defective items. The creation of equipment, such as non-electric dehumidifiers, to preserve product quality exemplifies the utilization of material science and storage technology, effectively regulating humidity and ensuring the integrity of items like *angklung*. This tool is manufactured using environmentally friendly technology, enabling its use independent of electrical sources. Functional design is employed to develop efficient and aesthetically pleasing instruments that embody the cultural values of the things being preserved.



Figure 4 Non Electric Dehumidifier

Source: Author's personal documentation (2024)

Developing equipment to uphold product quality, such as non-electric dehumidifiers, is an ideal technology that assists MSMEs in preserving product integrity without dependence on costly or inaccessible electricity sources. This equipment preserves products like *angklung* in optimal condition during storage, hence decreasing the risk of damage and loss of revenue. This technology is both efficient and environmentally sustainable, promoting business viability and enabling stakeholders to enhance their income sustainably.

d. Creating Products That Facilitate Arrangement and Organization of Production Tool

The study's findings indicate that solutions designed to enhance organization, such as storage racks, assist MSMEs in arranging their production tools and materials. This enhances job efficiency and fosters a more orderly and organized work environment, hence contributing to productivity. Creating goods that facilitate the neatness and organization of production tool placement, such as storage racks, employs space management principles to devise an efficient organizational structure. Computer-Aided Design (CAD) technology facilitates the precise design of racks prior to manufacturing. Artistic features are employed in the design of racks that are both functional and visually appealing, enhancing the workspace's organization and attractiveness.



Figure 5 Tools Organizer

Source: Author's personal documentation (2024)

Developing goods that facilitate the neatness and organization of production tool placement, such as storage racks, is an appropriate technology that aids MSMEs in organizing production tools and materials more efficiently. A structured workstation accelerates the production process with little disruption, hence enhancing production capacity. This technology enables MSMEs to utilize their resources, hence enhancing income and wellbeing.

e. Developing Products that Enhance the Work Efficiency of Livestock Farmers

Research yielding items that enhance the operational efficiency of livestock farmers' human resources, such as medicinal storage vests, offers pragmatic solutions that assist farmers in addressing their animals' medical requirements. Vests intended for organized drug storage enable farmers to readily access essential care, hence enhancing the efficacy of livestock health management. Developing goods that enhance the operational efficiency of livestock producers' human resources, such as medicinal storage vests, amalgamates animal husbandry science, ergonomics, and human resource management.



Figure 6 Medicinal Storage Vest

Source: Author's personal documentation (2024)

Technology is employed in the selection of durable textile materials to produce vests that are both functional and comfortable for farmers. Functional and beautiful styles are showcased to guarantee the vests operate effectively while conveying a contemporary image for farmers. Developing goods that enhance the operational efficiency of livestock

producers' human resources, such as medicinal storage vests, is a suitable technology aimed at facilitating the management of pharmaceuticals and animal care (Smith & Kelly, 2008). This vest enables farmers to operate more efficiently and concentrate on executing daily activities, hence enhancing animal health and livestock yield. This method enables farmers to enhance animal output, thereby enhancing their wellbeing and that of their families.

The community service program provides MSMEs with practical solutions to enhance production efficiency and quality, while simultaneously promoting sustainability and competitiveness in a progressively competitive market (Pahlevi & Safitri, 2023). The study's findings assist MSMEs in navigating current hurdles and optimizing their potential within their industries. The results indicate that the training and mentorship offered enhance the capabilities of local human resources, directly influencing efficiency, productivity, and market access for MSMEs. This initiative successfully developed high-value products that are prepared to compete in both domestic and international markets.

CONCLUSIONS AND SUGGESTIONS

The program implemented through this community service demonstrates that an interdisciplinary approach to enabling MSMEs can substantially enhance the competitiveness of local products. This program enhances the competitiveness of MSMEs and fortifies the local economy by emphasizing product innovation and the application of technology in design and marketing. To guarantee the program's longevity, it is advisable to maintain rigorous mentorship, broaden the collaboration network, and persist in disseminating innovation findings to enhance the impact. Enhanced partnership with external entities, including foreign partners, would expedite the launch of MSME products in the global market and promote sustainable economic development in Tasikmalaya.

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