

Innovative Packaging Design to Empower Local SMEs: A Case Study on Honey Pineapple Products

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ABSTRACT: Innovative packaging design plays a pivotal role in empowering local SMEs by enhancing the marketability and competitiveness of their products. This study focuses on honey pineapple products in Pemalang, Central Java, where local producers face challenges such as low product value due to unattractive packaging and limited promotional efforts. Through a workshop conducted with SMEs and local women's farming groups (Kelompok Wanita Tani), this program provided training on designing packaging that adheres to functional, aesthetic, and ecological standards. The results demonstrate significant improvements in packaging design, which boosted product appeal and market competitiveness. This study underscores the importance of packaging innovation as a strategic tool for SME growth, with implications for local economic development and sustainability.

KEYWORDS: Honey Pineapple, Product Promotion, Packaging Design, SMEs.

I. BACKGORUND

Packaging design plays a vital role in marketing by influencing consumer decisions and increasing the perceived value of a product. In Pemalang, Central Java, honey pineapple products are a hallmark of local agricultural production, renowned for their high quality. However, despite Pemalang's status as a leading pineapple-producing region, with an annual output of approximately 37,133.2 tons concentrated in Belik District [5], the economic benefits for local farmers and SMEs remain limited due to low selling prices of raw pineapples, ranging between IDR 1,000 to IDR 2,000 per piece [5]. Local women farmer groups, such as Kelompok Wanita Tani (KWT) Berkah Tani, have attempted to add value by diversifying into processed products like chips, juice, and sweets. However, these efforts are hindered by inadequate packaging design. Current packaging fails to meet aesthetic, functional, and hygiene standards, often resulting in products that lack market appeal and competitiveness [6]. High production costs, limited knowledge of packaging technology, and a lack of awareness about the importance of design contribute to these challenges [5]. Packaging is a critical factor in influencing consumer purchasing decisions. As noted by Soroka (2011) [1], a well-designed package can elevate the perceived value of a product, which is especially important in the food industry where product quality is often assessed based on its presentation. According to Selke (2002) [2], packaging design should also consider environmental sustainability, which is becoming an essential factor in today's consumer market. In this case, improving the packaging of honey pineapple products could play a vital role in increasing sales and providing economic benefits to the local community [1][2].

This study addresses these issues through a packaging design workshop for local SMEs. By introducing principles of visual communication design and focusing on aesthetic, functional, and ecological aspects, the workshop seeks to empower SMEs to create packaging that attracts buyers and increases product value. This initiative aligns with efforts to support economic development and tourism in Pemalang by leveraging creative community contributions and research-based solutions [6]. One of the primary challenges faced by SMEs and local farmer groups in Pemalang is the lack of knowledge and skills related to modern packaging technology. Many small businesses struggle to keep up with industry standards due to limited access to training and resources. As highlighted by Landa (2017) [4], design education and access to professional guidance are essential for fostering innovation and helping small businesses remain competitive. In Pemalang, many SMEs still use traditional, simple packaging methods that fail to capture the attention of consumers, which is a missed opportunity to increase product value and consumer loyalty. Furthermore, the packaging design process is often seen as secondary to the production process itself. According to Koch and Lockwood (2016) [5], packaging should be considered a part of the marketing strategy, not just a functional necessity. It is often the first point of contact between the consumer and the product, and therefore, it plays a significant role in shaping consumer perceptions. Effective packaging can convey product quality, create brand identity, and stimulate emotional responses that drive purchase decisions. Unfortunately, the lack of awareness among local SMEs regarding these marketing potentials limits the effectiveness of the products in the marketplace.



Additionally, as consumer trends shift towards environmentally conscious purchasing decisions, the sustainability of packaging has become a key factor. The increasing consumer demand for environmentally friendly products necessitates that businesses adopt more sustainable packaging solutions. According to Selke (2002)[2], modern packaging solutions need to address not only aesthetics and functionality but also environmental considerations. The use of recyclable or biodegradable materials, as well as the reduction of packaging waste, is now a priority for many consumers. This trend poses an opportunity for Pemalang's SMEs to align with global sustainability movements and appeal to environmentally aware buyers by adopting more eco-friendly packaging.

By focusing on the integration of creative thinking with practical skills, the workshop aimed to equip local SMEs with the necessary tools to redesign their product packaging. Participants were taught to consider the product's target market, its positioning, and the story they wanted to tell through the packaging design. By fostering an understanding of visual communication design principles, the program intended to help participants create packaging that was not only functional but also attractive, sustainable, and aligned with market expectations[1][6].

Furthermore, the local government has shown strong support for initiatives that can help improve the economic conditions of Pemalang's agricultural sectors, especially with the potential for agribusiness development. By focusing on small-scale producers of honey pineapple, this project aligns with broader governmental goals for economic empowerment and the promotion of local agricultural products. As stated by Julianti (2014)[3], local government support is vital in facilitating the growth of small businesses, especially in rural areas, by providing access to training, infrastructure, and resources. This initiative not only aims to improve packaging design but also to create a more sustainable model for local SMEs to thrive in a competitive market. In addition to enhancing packaging design, this initiative also serves as a model for similar projects in other agricultural regions. As SMEs begin to recognize the importance of quality packaging, this knowledge can be transferred to other product lines in Pemalang and beyond, thus broadening the impact of the program. This initiative demonstrates the power of collaborative efforts between academia, local communities, and government organizations in achieving sustainable economic growth and promoting local products.

II. METHOD

This research was conducted through a community service program (Pengabdian Kepada Masyarakat, PKM) organized by the Visual Communication Design (DKV) Study Program of Universitas Pendidikan Indonesia (UPI). The program aimed to enhance the packaging design skills of local Small and Medium Enterprises (SMEs) and women farmer groups, particularly Kelompok Wanita Tani (KWT) Berkah Tani, in Pemalang. The goal was to improve the marketability and competitiveness of honey pineapple products by equipping participants with the necessary knowledge and tools to design effective packaging. The method employed a series of workshops structured around four main components:

- 1) Packaging Design Theory, participants were introduced to basic principles of packaging design. The theory session covered several key concepts, including:
 - a. Visual Hierarchy: Understanding the arrangement of design elements to lead the viewer's eye and highlight important information[3]
 - b. Contrast: The use of different colors, shapes, and sizes to create a clear distinction between key elements on the packaging[3]
 - c. Simplicity: Focusing on minimalistic designs to ensure that the packaging is easy to understand and does not overwhelm the consumer[4].
 - d. Sustainability: The importance of using eco-friendly materials and designing packaging that minimizes environmental impact[2][4].
- 2) Practical Application, the second phase involved hands-on training, where participants created packaging designs using simple tools and software. They were encouraged to apply the design concepts discussed in the theory session. Facilitators guided participants through exercises that helped them conceptualize their designs and create prototypes. The practical sessions emphasized meeting both aesthetic and functional requirements, ensuring that the packaging was visually appealing and effective in preserving and protecting the product.
- 3) Feedback and Iteration, after the initial designs were developed, participants received feedback from facilitators and experts. The feedback focused on improving the designs in terms of visual appeal, functionality, and adherence to industry standards. Participants then had the opportunity to refine their designs, iterating on them based on the critiques provided. This iterative process helped ensure that the final packaging designs met the necessary criteria and standards for market success[1].



- 4) Final Presentations, in the final stage, each group presented their redesigned packaging. The presentations included explanations of the design process, the challenges faced, and how the feedback was incorporated into the final design. After reviewing all the designs, the best ones were selected for potential production. These selected designs were considered for further development and implementation, with the goal of improving the marketability of honey pineapple products in local and regional markets[6].
- 5) Data Collection Methods, the research utilized a combination of qualitative data collection methods, including:
 - a. Interviews: Conducted with participants to gather insights on their knowledge and skills before and after the workshop.
 - b. Participant Observations: Facilitators observed participants during the workshops to assess their engagement, understanding, and application of design principles.
 - c. Feedback Surveys: Surveys were distributed to gather participant feedback on the workshop's effectiveness and their satisfaction with the training sessions.

Through these methods, the research aimed to assess the impact of the workshops on participants' knowledge of packaging design principles and their ability to apply them in the creation of market-ready packaging[5].

III. RESULT AND DISCUSSION

The workshops conducted for local SMEs and the Kelompok Wanita Tani (KWT) Berkah Tani in Pematang Lahan yielded significant improvements in both the knowledge of participants and the quality of their packaging designs. Before the workshops, many participants lacked a clear understanding of the principles of effective packaging design. Most of the existing packaging designs for honey pineapple products were simple, unattractive, and did not comply with basic hygiene standards[4][6]. These packages often featured poor visual appeal, which hindered their ability to stand out in a competitive market. The designs were also impractical, with limited consideration for product safety and consumer needs.

Prior to the workshop, participants were unaware of the fundamental design concepts such as visual hierarchy, contrast, and simplicity. As mentioned by Landa (2017)[3], visual hierarchy is critical for guiding the consumer's attention to the most important product information. In contrast, participants' initial packaging designs often lacked clear structure, making it difficult for consumers to quickly identify key details about the product, such as its ingredients and usage instructions. Additionally, the designs lacked the necessary contrast to make the product stand out on store shelves.

After participating in the workshop, however, participants demonstrated a much better understanding of the importance of functional, aesthetic, and ecological aspects in packaging. This shift in understanding was evident in the redesigned packaging, which incorporated better visual hierarchy, improved contrast, and more effective use of typography. As noted by Soroka (2011)[1], packaging design must balance both aesthetic appeal and functionality to effectively communicate the product's quality to consumers. The redesigned packages were not only visually more attractive but also met functional standards, ensuring the packaging could protect the product and provide clear information to the consumer.

The redesigned packaging also took into account the growing consumer demand for eco-friendly products. According to Selke (2002)[2], sustainability is increasingly important in packaging design. The workshop introduced participants to sustainable design principles, which encouraged the use of recyclable or biodegradable materials in packaging. The use of eco-friendly packaging materials was a major step forward for many of the participants, who previously had limited awareness of these sustainable alternatives.

The application of these principles resulted in packaging that was more visually appealing and aligned with current market standards. For example, the use of colors, typography, and illustrations in the new designs was more in tune with consumer preferences, particularly in terms of branding and product positioning[4][6]. The participants were encouraged to think about the emotional response their packaging could evoke in consumers, ensuring that the designs were not only functional but also capable of capturing consumer attention at the point of sale.

One of the key improvements in the new packaging was the better integration of brand identity. Many of the initial designs did not reflect the unique qualities of the honey pineapple products from Pematang Lahan. As noted by Koch and Lockwood (2016)[5], packaging serves as a vital tool for communicating brand identity to consumers. Through the workshops, participants learned to incorporate elements of local identity and product uniqueness into their packaging designs, which helped to differentiate their products from competitors in the marketplace.



Figure 1. Packaging Design Before Redesign and Workshops

In addition to aesthetics and functionality, the new packaging designs also met local hygiene and safety standards, which are critical for gaining consumer trust and ensuring the product's shelf life. For instance, the packaging was redesigned to be airtight, ensuring that the product stayed fresh longer and that it complied with food safety regulations. The use of clear labeling, including expiration dates and ingredient lists, also improved the transparency of the product, helping to build consumer confidence[1][6].

Despite these improvements, some participants still struggled with the technical aspects of the design process. Many of the SMEs and farmer groups had limited experience with design software, which made it challenging for them to fully realize their design ideas. The facilitators provided guidance in using design tools, but the process remained difficult for some, especially those who were not familiar with digital design programs. As pointed out by Landa (2017)[3], access to design software and professional guidance is crucial for small businesses looking to innovate and remain competitive in the marketplace. This gap in technical skills highlights the need for continued support and training for local SMEs.



Figure 2. Packaging Design After Redesign and Workshops

Moreover, integrating environmental considerations into the design process proved challenging for some participants. While many were open to using eco-friendly materials, they lacked the knowledge to source these materials effectively. However, the workshop did raise awareness about the importance of sustainability in packaging, and participants expressed interest in learning more about environmentally friendly alternatives for future packaging designs[2][4].

Despite these challenges, the overall outcome of the workshop was positive. Many participants expressed increased confidence in their ability to apply the design principles they had learned, and several reported feeling more equipped to implement packaging changes that could enhance the marketability of their products. As stated by Julianti (2014)[6], empowering local businesses through education and skill development is a key factor in driving economic growth and increasing competitiveness in rural areas. The workshop achieved this goal by not only improving participants' packaging designs but also boosting their confidence in their creative abilities.

The redesigned packaging designs were evaluated based on several criteria, including their aesthetic appeal, functionality, adherence to hygiene standards, and environmental impact. The final designs presented by the participants showed marked improvements in all of these areas. Some of the designs were selected for potential production and market testing, with the hope that these new packages would contribute to increased sales and a stronger market presence for honey pineapple products from Pematang[6].

The success of the workshop highlights the importance of combining creative thinking with practical skills. As noted by Soroka (2011)[1], effective packaging design is not only about making the product look good but also about ensuring it serves its functional purpose and resonates with the consumer. The workshop provided participants with the tools they needed to create packaging that met both aesthetic and practical requirements, which is crucial for ensuring that their products can compete in the market.

Looking ahead, the research suggests that there is significant potential for the continued development of packaging design skills among local SMEs in Pematang. By expanding access to training, providing ongoing support, and encouraging collaboration with professional designers, it is possible to further enhance the packaging quality of honey pineapple products and other local agricultural products. As consumers become more discerning and demand higher-quality products, packaging will continue to play a key role in determining the success of these products in the marketplace[4].

IV. CONCLUSION

The packaging design workshop conducted in Pematang has successfully improved the knowledge and practical skills of local SMEs and women farmer groups, particularly Kelompok Wanita Tani (KWT) Berkah Tani, regarding the critical role of packaging in marketing and consumer engagement. Before the workshop, many participants had limited understanding of packaging design principles and their importance in improving the overall marketability of their products. Most of the packaging used for honey pineapple products was basic, unattractive, and did not align with current consumer expectations. This workshop helped bridge that knowledge gap, equipping participants with the tools and insights needed to create packaging that is both aesthetically appealing and functionally effective [5][1].

A key takeaway from the workshop was the importance of visual communication design principles. By focusing on these principles—such as visual hierarchy, contrast, and simplicity—participants were able to develop packaging that communicated the value of their products more effectively. Soroka (2011)[1] emphasizes that effective packaging design must guide the consumer's attention to the most important aspects of the product, making it easier for them to understand the product's value and differentiate it from competitors. Before the workshop, the lack of such principles resulted in packaging that failed to stand out or convey the quality of the honey pineapple products. After the workshop, participants were able to integrate these elements into their designs, resulting in more visually appealing and market-ready packaging.

The workshop also placed a strong emphasis on functionality and practical considerations, including the durability and protection of the product. As noted by Selke (2002)[2][8], packaging must not only look good but also serve a functional purpose, such as protecting the product from contamination or damage. In this regard, the participants learned to design packaging that ensured the honey pineapple products would remain fresh and safe for consumption throughout their shelf life. The new packaging designs addressed both the aesthetic and functional aspects, contributing to the overall value of the products.

One of the major successes of the workshop was the participants' ability to incorporate sustainability into their packaging designs. Given the growing consumer demand for environmentally conscious products, the workshop emphasized the use of eco-friendly



materials and sustainable design practices. Many participants expressed interest in using recyclable or biodegradable materials for their packaging, recognizing the importance of aligning their products with modern consumer preferences. According to Selke (2002)[2], packaging design should take into account not only aesthetics and functionality but also environmental impact. This shift towards more sustainable packaging represents a significant step forward for SMEs in Pemalang, especially in a market where sustainability is becoming an increasingly important factor in consumer purchasing decisions.

The redesigned packaging also met local hygiene and safety standards, which are crucial for ensuring consumer confidence and satisfaction. Before the workshop, many participants were unaware of the necessary hygiene requirements for food packaging. This lack of awareness posed a risk to consumer safety and could potentially damage the reputation of the products. The workshop provided participants with the knowledge needed to ensure their packaging complied with local safety standards, including clear labeling, tamper-proof seals, and safe materials. These improvements not only helped protect the consumers but also ensured that the products could be marketed in local and regional stores without facing regulatory obstacles.

Another important aspect of the workshop was its impact on the participants' confidence in their design abilities. Prior to the training, many of the participants had little to no experience with modern design tools or principles. However, through hands-on exercises and continuous feedback from facilitators, participants gained valuable skills in creating packaging that not only meets functional requirements but also attracts consumers. Landa (2017)[3] suggests that access to design education and professional guidance is essential for fostering innovation, especially among small businesses. The workshop empowered participants to take ownership of their designs and think creatively, which has long-term benefits for both the businesses and the community.

Despite the overall success, some challenges remain. Several participants still struggled with the technical aspects of the design process, particularly with using design software and integrating more advanced design elements. Although the facilitators provided guidance, there was a clear need for more in-depth training on the technical use of design tools. As highlighted by Landa (2017)[3][9], bridging the gap between creativity and technical execution is essential for ensuring that the designs can be brought to life effectively. In the future, it would be beneficial to provide additional training sessions focusing specifically on the use of design software and digital tools.

Moreover, while many participants embraced the concept of sustainability, integrating environmentally friendly materials into their designs proved to be a more complex issue. The limited availability of eco-friendly materials and the higher costs associated with them presented challenges. Nevertheless, the awareness raised during the workshop about the importance of sustainability in packaging has inspired participants to seek out alternative solutions and consider the environmental impact of their future designs. According to Selke (2002)[2], the packaging industry is moving toward more sustainable practices, and SMEs in Pemalang are now better positioned to be part of this movement.

One of the key outcomes of the workshop was the creation of packaging designs that not only met the basic needs of the product but also reflected the identity of the honey pineapple from Pemalang. Before the workshop, many of the designs lacked elements that communicated the uniqueness of the product and its local origins. The new packaging designs incorporated local cultural elements, which helped strengthen the brand identity of the honey pineapple products. This was an important step in differentiating their products in a competitive market. As noted by Koch and Lockwood (2016)[4], packaging plays a crucial role in establishing brand identity, and the redesigned packaging successfully achieved this goal.

The final presentation session provided an opportunity for participants to showcase their work, demonstrate their progress, and receive constructive feedback. This not only helped the participants refine their designs but also allowed them to gain insights into how their packaging designs could be improved further. The presentations also provided an opportunity to evaluate the effectiveness of the workshop in terms of its impact on the participants' ability to create market-ready designs. As a result, several of the redesigned packaging options were selected for potential production, which will contribute to increasing the marketability of honey pineapple products from Pemalang.

In conclusion, the packaging design workshop has proven to be an effective intervention for improving the packaging quality of honey pineapple products in Pemalang. The improvements in the participants' knowledge of design principles, as well as the practical application of these principles, have led to the creation of more attractive and functional packaging. These changes are expected to result in increased consumer interest and sales, thereby contributing to the economic development of the region. The workshop has shown that design interventions can significantly impact local businesses, especially in sectors like food processing, where packaging plays a crucial role in market success[4].

Looking forward, it is recommended that similar workshops be organized regularly to continue building the design capacity of local SMEs and farmer groups. By providing ongoing training and resources, these groups can remain competitive in the market and continue to improve their products' packaging. Furthermore, expanding the program to include more advanced topics in design and sustainability would help participants refine their skills and stay ahead of evolving market trends[5].

V. RECOMMENDATION

Based on the outcomes of this program, several recommendations are proposed to further enhance the impact of packaging design improvements and promote the growth of local SMEs and agricultural sectors in Pemalang and beyond.

- 1) **Continuous Training:** Although the workshop provided valuable insights and hands-on experience for participants, there is a need for continued training to further refine the skills of local SMEs and farmers. As the packaging design industry is constantly evolving, it is essential that participants stay up to date with the latest design trends, materials, and techniques. Future workshops should not only focus on reinforcing the principles of visual communication and packaging design but also on teaching more advanced skills, such as using design software and integrating digital tools into the packaging process. Additionally, training should include in-depth sessions on sustainability practices, such as sourcing and using eco-friendly materials, which are becoming increasingly important in consumer markets[6][2]. The aim is to provide SMEs with the knowledge and tools necessary to stay competitive in a rapidly changing market environment.
- 2) **Collaboration with Local Designers:** Another key recommendation is for SMEs to collaborate with professional designers to enhance the overall quality of their product packaging. While the workshops have provided participants with foundational design skills, professional designers can offer expert insights and advanced skills that are crucial for achieving market-ready designs. Collaboration with local designers can help ensure that the packaging meets not only functional and aesthetic standards but also aligns with the latest market trends and consumer expectations. By working with designers, SMEs can also build a stronger brand identity, which is essential for differentiating their products from competitors in both local and global markets[5]. Furthermore, designers can assist with prototyping, ensuring that the designs are feasible and can be efficiently produced using the resources available to the SMEs.
- 3) **Expansion to Other Regions:** The success of the workshop in Pemalang suggests that this model can be replicated in other pineapple-producing regions of Central Java and beyond. Expanding the workshop to include more SMEs in other agricultural areas would help spread the benefits of improved packaging design to a wider audience, thus contributing to the economic development of rural communities across the region. The workshop model can be tailored to address the unique needs of each region, while still focusing on core design principles such as sustainability, functionality, and market appeal. By expanding the program, it would be possible to create a broader network of SMEs that are more competitive in the marketplace, leading to a stronger regional economy and increased visibility for locally produced products [6][5].
- 4) **Marketing and Promotion:** In addition to improving packaging design, it is essential to develop comprehensive marketing strategies to promote honey pineapple products and increase their market reach. Packaging design plays a critical role in attracting consumers, but it must be supported by strong marketing efforts to maximize its potential. SMEs should consider leveraging digital marketing tools, especially social media platforms, to increase brand visibility and promote their products to a wider audience. Online marketing is particularly valuable for local businesses looking to reach national and international markets. By utilizing e-commerce platforms and social media, SMEs can effectively showcase the unique qualities of their products and attract consumers who prioritize quality, sustainability, and local products[1][6]. Additionally, storytelling through marketing campaigns that highlight the origin of the product and the effort put into creating high-quality packaging can help build emotional connections with consumers, increasing brand loyalty and sales.
- 5) **Building Partnerships with Local Government and NGOs:** To ensure the long-term sustainability of the workshop model and facilitate the growth of SMEs, it is crucial to build partnerships with local government bodies, non-governmental organizations (NGOs), and industry stakeholders. Local governments can provide funding, logistical support, and policy advocacy, while NGOs can assist with capacity-building and expanding the reach of training programs. Collaborative efforts with these entities can help SMEs access more resources, market opportunities, and professional networks. Moreover, government support for sustainable business practices, including offering incentives for eco-friendly packaging solutions,



could further drive the adoption of these practices by SMEs [6]. Such partnerships can create a supportive ecosystem where SMEs can thrive and continue to innovate.

- 6) Developing a Comprehensive Quality Assurance System^[11]In addition to the focus on design, it is important to implement a quality assurance (QA) system to ensure that the packaging consistently meets the required standards. Developing a QA system would involve regular checks on the quality of the packaging materials used, the production process, and the final product. This system would help prevent issues related to product safety, packaging durability, and labeling accuracy, ensuring that the packaging remains both functional and compliant with regulations. It would also contribute to maintaining consumer trust in the product, which is critical for the long-term success of any SME. The quality assurance system should be designed to be simple, affordable, and scalable, allowing even small-scale producers to implement it effectively

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