

Ampiang Dadiah: Functional Packaging Design For Minangkabau Traditional Food

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ABSTRACT

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Dadih, or Dadiah in Minangkabau, is a traditional yogurt made from fermented buffalo milk. The fermentation process takes place in bamboo segments, which are sealed with banana leaves. Ampiang Dadiah is a combination of ampiang (flattened glutinous rice), gulo anau (palm sugar), and dadiah. This dish is a source of pride for the Minangkabau community, known for its many benefits and containing lactic acid bacteria that act as probiotics. However, traditional foods like this are often hard to find and not widely known. The preparation is inconvenient, and there is no packaging that combines dadiah, gulo anau, and ampiang. The presentation is also less attractive, preventing it from becoming a signature souvenir from West Sumatra. To address these issues, a packaging design for ampiang dadiah has been created that retains local wisdom while integrating modern packaging elements. This innovation includes new packaging for dadiah, which is traditionally wrapped in bamboo and sealed with banana leaves or plastic. The new design features attractive packaging with instant ampiang, making it easy to enjoy at any time. The design process followed the Design Thinking method, considering aspects such as empathize, define, ideate, prototype, and test. The new design makes the traditional ampiang dadiah easier to serve, combines it with gulo anau and ampiang in one package, and is presented attractively, informatively, and with higher market value. The result is a functional and modern packaging design that serves as an inspiration and an effort to elevate local products to become a hallmark of West Sumatra.

Keywords: Packaging, Ampiang Dadiah, Traditional Food, Minangkabau, Design Thinking

ABSTRAK

Dadih atau dalam bahasa Minangkabau yaitu Dadiah adalah yogurt tradisional fermentasi dari susu kerbau. Dadiah difermentasi dalam bambu yang telah dipotong dan ditutup dengan daun pisang. Ampiang dadiah sendiri adalah campuran ampiang, gulo anau (aren) dan dadiah. Makanan ini menjadi salah satu makanan kebanggaan masyarakat Minangkabau, banyak manfaat dan diketahui mengandung bakteri baik asam laktat yang berguna sebagai probiotik, namun faktanya makanan tradisional ini sangat susah dicari, belum banyak yang mengetahui, penyajian yang kurang praktis, dan belum ada kemasan satu kesatuan antara dadiah, gulo anau dan ampiang, tampilan kurang menarik sehingga belum bisa dijadikan oleh-oleh andalan dari Sumatera Barat. Dari permasalahan diatas maka dirancang desain kemasan ampiang dadiah yang masih mempertahankan kearifan lokal dan mengkolaborasikannya dengan kemasan modern. Terobosan terbaru untuk kemasan dadiah karena biasanya dadiah hanya dikemas dengan menggunakan bambu dan ditutup daun pisang atau plastik, dalam rancangan ini dikreasikan dengan kemasan yang menarik dilengkapi dengan ampiang instan yang bisa dinikmati kapan saja. Metode yang dipakai dalam merancang kemasan adalah design thinking, yang memperhatikan aspek empathize, define, ideate, prototype dan test. Dengan rancangan yang telah dilakukan makanan tradisional ampiang dadiah mudah dalam penyajiannya, satu paket dengan gula anau dan ampiang, dikemas secara menarik, informatif dan mempunyai nilai jual. Dengan hasil desain kemasan terbaru yang fungsional yang dipadupadankan dengan kemasan modern

maka hasil rancangan bisa dijadikan sebagai inspirasi dan menjadi sebuah upaya untuk mengangkat produk lokal menjadi andalan Sumatera Barat

Kata Kunci: Kemasan, Ampiang Dadiah, Makanan Tradisional, Minangkabau, Design Thinking

INTRODUCTION

The Minangkabau are an ethnic group renowned for their culture of wandering and migration. The Minangkabau region is famous for several types of tourism, including cultural, natural, and culinary attractions. One of the most notable aspects of these three types of tourism is its cuisine, evidenced by the diverse range of dishes and culinary specialties from various areas in Minangkabau. Minangkabau cuisine has its own unique characteristics that set it apart from other regions in Indonesia [1]. Traditional food refers to dishes or beverages consumed by a specific community, characterized by a distinct taste influenced by local culture. From the preparation process to the form, artistry, and creativity involved, traditional food becomes a unique culinary experience [2]. The preparation of traditional food is based on recipes passed down through generations, utilizing local ingredients that align with the tastes of the community. This makes these traditional dishes unique to their place of origin and unavailable elsewhere [3]. Minangkabau culture has been a rich and fascinating subject of research in various fields of study. Observations and research have been conducted by both Minangkabau people and outsiders, contributing to a wealth of both oral and written literature [4].

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Dadih, or *dadiyah* is a traditional Minangkabau food product made from buffalo milk that has been fermented inside a bamboo tube. This food has been consumed by the Minangkabau people for a long time, even for hundreds of years. *Dadiyah* has a yogurt-like appearance with a soft and thick texture, creamy white color, fragrant aroma, and distinctive sour taste. It is commonly found in regions such as Padang Panjang, Agam, Bukittinggi, Lima Pulu Kota, Solok, and Tanah Datar [5]. The sour taste in *dadiyah* is caused by organic acids (lactic acid) produced from the fermentation of lactose. Additionally, the unique flavor is a result of the combination of bamboo starch from the bamboo container and volatile compounds formed during the fermentation of buffalo milk [6]. *Dadiyah* is usually consumed directly or can be mixed with various foods. For the Minangkabau people, *dadiyah* is often served for breakfast with rice and some added seasonings. *Dadiyah* can also be combined with *ampiang* (glutinous rice flakes), coconut milk, and *gulo anau* syrup as toppings, a dish known as *ampiang dadih* [5].

Ampiang and *dadiyah* are often served separately and have not yet been combined in a single package. As a result, consumers of *ampiang dadiyah* have to search for *dadiyah*, *ampiang*, and *gulo anau* syrup separately. This makes the product inconvenient to carry and difficult to establish as a traditional food that can be used as a souvenir. Due to these factors, *ampiang dadiyah* is not only rare and hard to find, but it is also not widely known. Its presentation is impractical, and there is no packaging that combines *dadiyah*, *ampiang*, and *gulo anau* syrup. Visually, the product is also less appealing, preventing it from becoming a popular souvenir from West Sumatra.

Meanwhile, the benefits and uniqueness of this food should be seen as a potential for development as a distinctive dish that could become a popular souvenir, comparable to Rendang, which is well-branded both locally and globally. The rapid advancement in graphic design demands continuous evolution and alignment with design trends, including packaging design. With the increasing number

of design training activities, both virtual and in-person, the design field is constantly evolving to meet contemporary standards [7].

Visual communication design can be utilized to develop creative products inspired by Minangkabau art and culture, such as woven fabrics, wooden carvings, handicrafts, and traditional foods and beverages. By employing engaging visual communication design, these products can be marketed more attractively and help introduce the beauty of Minangkabau art and culture to a wider audience. Thus, the role of visual communication design is crucial in preserving Minangkabau culture. It can serve as a tool to promote, preserve, and advance Minangkabau culture, ensuring that it continues to thrive and evolve in the modern era [8]

Packaging is a container designed to enhance the value and functionality of a product. More specifically, packaging serves to protect the quality of the product, ensuring its durability. It acts as a communication tool for product information and branding to consumers, assists in the distribution process from producer to consumer, and facilitates mass production. Finally, packaging stimulates consumer interest by engaging their senses [9]. With well-designed packaging, *ampiang dadiah* can certainly become a marketable product, making it an attractive and desirable gift for consumers. This opens up opportunities for the food industry, small and medium-sized enterprises (SMEs), and entrepreneurs to enter a higher market segment [9]. A unique packaging design is considered efficient and effective as a promotional tool and an alternative medium for branding. It helps the brand become more memorable and quickly ingrained in the minds of consumers or target audiences [10].



Figure 1. Original packaging of fermented dadiah milk

The figure 1 shows a container for *dadiah* made from bamboo and sealed with plastic. Given the simple appearance and the fact that the product only provides *dadiah*, the designer aims to innovate by creating a product that combines *dadiah*, *ampiang*, and *gulo anau* (palm sugar) syrup in a single, functional package. The image above shows *dadiah* using bamboo material, with the *dadiah* separated from the *gulo anau* and *ampiang* mixture. From a functional perspective, this is somewhat lacking as all the ingredients are separate from the main packaging of this traditional food. Therefore, this design serves as an exploration to develop more practical packaging for Minangkabau traditional food, making it easier to enjoy [11]

METHOD

The method adapted for designing the *ampiang dadiah* packaging is Design Thinking, which consists of five stages. The first stage, empathize, involves interacting directly with users to understand their needs and experiences, providing a foundation for defining the problem. The next stage, define, focuses on clearly articulating the problem based on the insights gathered during the empathize stage. In the ideate phase, brainstorming is employed to generate creative solutions. The prototype stage involves creating multiple prototypes to explore and test various ideas. Finally, the test stage is where the prototypes are implemented and evaluated to refine the design and ensure it meets user needs effectively [12]. The stages of the Design Thinking method can be seen in Figure 2.

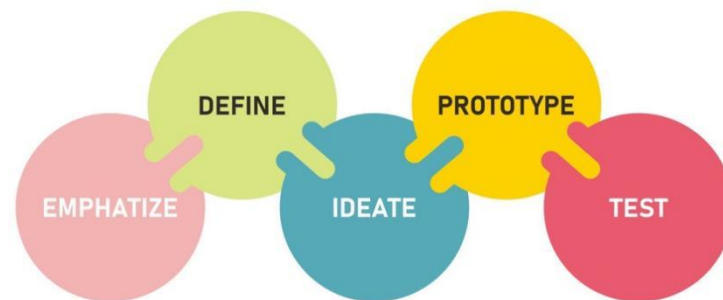


Figure 2. Stage of the Design Thinking method

The goal of the empathize stage is to gain a deep understanding of the user's needs. At this point, designers must set aside their own idealism to fully grasp the user's perspective. To overcome biases and assumptions, the 5W+1H (Who, What, When, Where, Why, and How) questioning technique can be used. In the define stage, the focus shifts to analyzing the collected data to identify problems or threats experienced by users. This stage aims to uncover issues and explore creative ideas for addressing them. The ideate stage involves generating ideas that will be developed into prototypes. This phase also assesses whether the proposed solutions effectively address the identified user problems. Finally, the test stage is where prototypes are evaluated, and user feedback is collected to refine and enhance the design [13].

RESULT & DISCUSSION

Designing the packaging for *ampiang dadiah* begins with applying the first steps of the Design Thinking method: empathize and define. This phase involves engaging with users or individuals involved with the traditional food *ampiang dadiah*. Through observations and interviews, it was concluded that there is no practical packaging solution to combine *ampiang* and *dadiah*. This insight serves as the foundation for the design process of this traditional food product from West Sumatra. Additionally, it represents an effort to raise awareness and promote *ampiang dadiah* as a key souvenir and traditional food from West Sumatra.

The ideate stage involves gathering ideas and developing design concepts. This stage is divided into three design processes adapted from the book *"The Art of Packaging"*. First, Conceptual Design focuses on creating various design concepts to meet the objectives of the *ampiang dadiah* packaging. This involves generating a range of ideas that align with the design goals. Next, Embodiment Design builds upon the selected concepts by giving them form. This phase includes defining the geometry, packaging components, and materials to be used, further refining the chosen

design concepts [9]. The following stage in the ideation process includes sketches and shape studies, as illustrated in Figure 3.



Figure 3. Packaging idea exploration, sketches and form

The third process, Detail Design, involves determining the shape, size, and tolerances of the packaging, as well as selecting the materials and production methods [9]. Once the ideas and forms for the *ampiang dadiah* packaging have been developed, they are translated into detailed designs to finalize the shape and dimensions. Exploration is also carried out to ensure that the primary goal—combining *gulo anau* (palm sugar), *ampiang*, and *dadiah* into a practical packaging solution—is achieved.

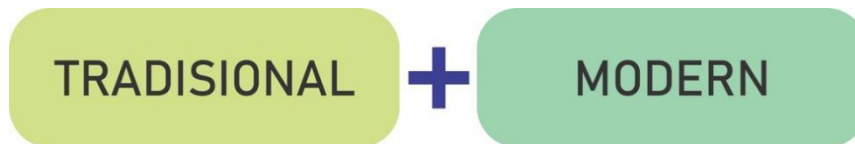


Figure 4. The Concept of amping dadiah packaging design

There are many types of bamboo in West Sumatra, and various kinds of bamboo are used to produce *dadiah*. The interior walls of bamboo contain natural fibers that spread lactic acid bacteria, which aid in the fermentation process of *dadiah*. Therefore, the type of bamboo used plays a crucial role in determining the quality of the *dadiah* [14]. The design will retain the use of bamboo to preserve the essence of *dadiah*, as bamboo is an integral material for *dadiah* due to its role in aiding the fermentation of buffalo milk. In the exploration phase, the bamboo container is designed with three levels: the bottom level holds the *dadiah*, the second level is for the *gulo anau* and *ampiang*, and the top level serves as the lid of the packaging.

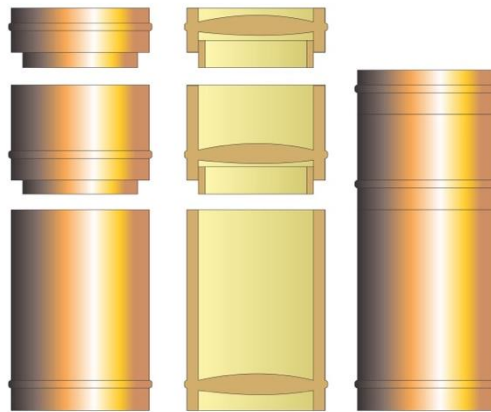


Figure 5. Construction of the bamboo container design

Ampiang and *gulo anau* (palm sugar) are packaged in precise portions to suit the consumer's preference for enjoying *ampiang dadiah*. The packaging also serves to protect the *ampiang* and palm sugar, keeping them sterile and extending their shelf life.



Figure 6. Exploration proses of bamboo container and paper materials

Next is the stage of designing the paper packaging and its graphics. This design will combine the traditional bamboo packaging with modern packaging elements. The image below shows a design that functions as both a label and branding for the *ampiang dadiah* packaging. The paper packaging also includes instructions for serving *ampiang dadiah*, details about the contents, and other relevant information. Additionally, the paper packaging visually enhances the aesthetics of the *ampiang dadiah* product. The brand name “Nan Lamak” is a simulation for the product's branding; however, this brand does not actually exist. The graphics incorporate Minangkabau elements, such as the Rumah Gadang and the colors associated with Minangkabau traditions. The designs can be seen in Figures 7 and 8.



Figure 7. Paper packaging design



Figure 8. Paper packaging specifications

The paper packaging specifications involve different sizes for the base and the top cover of the bamboo container. The top cover measures 29 cm x 20 cm, while the bottom measures 28 cm x 19 cm. The design pattern is created to ensure that the bamboo container stands securely. The next stage involves integrating the bamboo container with the paper packaging. The cutting patterns are designed to facilitate easy application of the paper to the bamboo container. This stage represents the implementation of the concept of blending traditional and modern elements, preserving the essence of the *dadiah* itself. The various design perspectives can be seen in Figure 9.



Figure 9. View images and cutting patterns

The next step involves turning all the designs and plans into a prototype. The final design image shows the presentation of the *ampiang dadiah* packaging. This stage represents the initial implementation of the design, with the aim of testing the concept before it is finalized for publication. The prototype of the *ampiang dadiah* packaging can be seen in Figure 10.

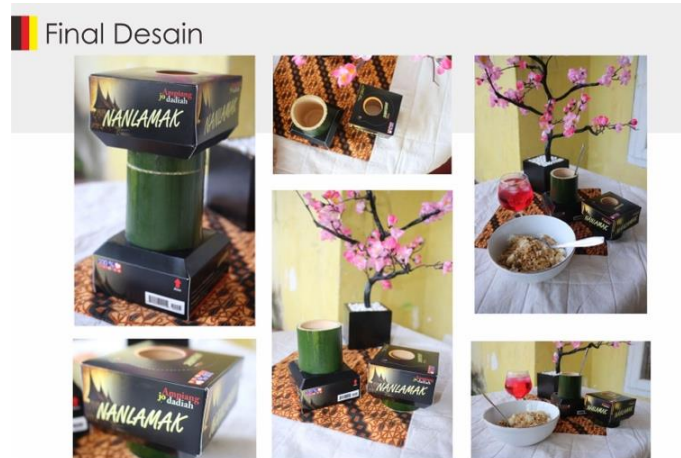


Figure 10. Prototype and final design



Figure 11. Ampiang dadiah dish

The novelty of this packaging design is the inclusion of three components for enjoying ampiang dadiah, a combination that has not been available in previous packaging. Therefore, ampiang dadiah is less optimal as a souvenir from West Sumatra if its packaging has not been explored [15].

The final stage of the Design Thinking method for the *ampiang dadiah* packaging is test. For this stage, the packaging was submitted to a competition organized by Bidang Pengembangan Ekraf berbasis Media, Desain dan Iptek, Dinas Pariwisata dan Ekonomi Kreatif Provinsi Sumatera Barat in 2016. The packaging design was nominated and won the competition. Additionally, the work was invited to participate in the Indonesian Packaging Federation (IPF) PackindoStar Awards "For Excellence in Packaging," where it was competed on an international stage.



Figure 12. Packaging design competition

CONCLUSION

The functional packaging design for *ampiang dadiah* was created using the Design Thinking method and the stages of product design. This design combines traditional and modern concepts to produce an innovative new product. The resulting product and packaging can be used to brand local traditional foods and position them as flagship products for West Sumatra. The design makes the traditional *ampiang dadiah* easy to serve, with a package that includes *gulo anau* and *ampiang*. The packaging is visually appealing, informative, and commercially viable. The latest functional packaging design, blending traditional and modern elements, serves as an inspiration and an effort to elevate local products as key offerings from West Sumatra.

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