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Analysis of Galamai Packaging Development for Autentic Souvenirs of Payakumbuh

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Abstract

One of the typical traditional foods from West Sumatra is Galamai. Galamai is a traditional food from Payakumbuh made from glutinous rice flour, coconut milk, and palm sugar. It is commonly served during gratitude and traditional ceremonies. Galamai has become available in souvenir shops across West Sumatra, allowing tourists to taste it as well. However, there are several issues found with Galamai sold in souvenir shops currently, including changes in flavor, rancid odor, and the growth of mold. This study aims to analyze the packaging needs of Galamai and provide recommendations for the development of improved packaging solutions.

Keywords: packaging needs, primary packaging, secondary packaging, shelf life

Introduction

West Sumatra is well-known for its tourism and culinary delights. After visiting various tourist spots, there are many culinary variations to be sampled and brought home as souvenirs. Various souvenirs can be found in one store, allowing consumers to choose according to their preferences. One of the culinary delights that can be taken home as a typical souvenir of West Sumatra is Galamai. Galamai is a specialty food from Payakumbuh made from glutinous rice flour, coconut milk, and palm sugar. Galamai has a similar shape to dodol. The difference between Galamai and dodol is that Galamai has a sticky and oily texture.

Galamai belongs to the semi-moist food type, containing 20-40% water. Galamai also has a short shelf life because it is processed at high temperatures, making it susceptible to spoilage (Murtius et al., 2021). Damage to Galamai can also occur due to high-temperature oxidation during processing, resulting in rancidity and increased susceptibility to mold.

The current packaging of Galamai only uses thin PP plastic coated with oil as the primary packaging, followed by large-sized, slightly thick PP plastic with heat-sealed as the secondary packaging. Packaging serves as protection, maintaining product quality until the guaranteed shelf life has expired. Additionally, the packaging provides clear product information to consumers (Julianti, 2017). Currently, only basic information, such as the business brand name, contact details, and composition used in making Galamai, is provided on

the outer packaging. There is a lack of information explaining the shelf life, food quality conditions, and other relevant details.

Based on these issues, this study will analyze the packaging development needs for Galamai packaging, considering product characteristics, shelf life, and packaging standards. There is a need for collaboration between academics, the government, and SMEs to provide knowledge about packaging, which will have a positive impact on businesses and consumers (Sutanto et al., 2021).

Method

The method used in this research is qualitative, referring to the stages of the packaging design process by Julianti (2017) in the book 'A Practical Guide to Flexible Packaging', including:

1. Understanding product characteristics
2. Understanding consumers
3. Considering product packaging methods
4. Considering packaging materials and forms
5. Meeting SHE requirements (Safe, Healthy, and Eco-friendly)
6. Conducting tests

However, this research will only analyze up to the stage of considering packaging materials and forms. The analysis to be conducted includes comparative studies and Terms of Reference (TOR) analysis that can be used as a recommendation for the better development of Galamai packaging.

Result and Discussion

Galamai is one of the traditional foods from Payakumbuh, served as a mandatory snack in various traditional ceremonies and gratitude. Galamai also carries a distinct taste and symbolic meaning (Hastuti, 2023). To achieve its unique flavor, it requires appropriate processing techniques, including cooking at high temperatures and for a long duration.

Figure 1. Visual serve of Galamai during ceremonies
Source: sarihusada.co.id

In its development, Galamai can be found in specialty souvenir shops in West Sumatra. Galamai is packaged in small plastic wraps coated with oil as its primary packaging. For secondary packaging, thick transparent plastic is used, with product information stickers, sealed using heat. The type of plastic used for primary and secondary packaging is PP type plastic.

Figure 2. The form of Galamai when packaged
Source: author documentation

The product information displayed on the packaging of Galamai usually uses stickers that are stuck on the plastic or inserted inside the plastic packaging. Among the information displayed are the manufacturer's name, halal certification, P-IRT number, manufacturer's address, and contact details.

Figure 3. The product information is displayed on the Galamai packaging
Source: author documentation

The next step is to do a comparative study with similar products. This analysis aims to find better packaging recommendations by examining the packaging used by similar products. The selected products share similarities in ingredients and cooking methods.

No.	Comparative Objects		Comparative analysis
1.	Jenang vs Galamai		
	Jenang  (source: javanologi.uns.ac.id)  (source: ksmtour.com)  (source: mubarokfood.co.id)	Description (Wibowo, 2021): 1. Served during traditional ceremonies/celebrations. 2. Cooked for a long time until thickened and solidified. 3. Ingredients used include rice flour, glutinous rice flour, coconut milk, brown sugar, ginger, and shallots. 4. Comes in various flavors, each with its unique significance. The Jenang product used as a comparison is Jenang Mubarok. The following is its description: 1. Primary packaging using labeled PP plastic. 2. Secondary packaging uses a cardboard box. 3. Secondary packaging is then re-coated using plastic wrap on all parts of the box.	Jenang and Galamai share similar textures and some basic ingredients, including glutinous rice flour, coconut milk, and brown sugar. The difference from Galamai is that Jenang comes in various flavors and toppings. Jenang used labelled PP plastic for primary packaging, using cardboard for its secondary packaging, and then sealed it again with plastic wrap on all cardboard. Some variants of Jenang Mubarok also display the identity and origin of the product on the packaging.

2.	Dodol Garut vs Galamai		
	Dodol   (source: tokopedia.com)	Description: 1. Offers a wide variety of flavors. 2. Product shelf life is 3 to 4 months (Grapela, 2023). 3. Primary packaging is made of paper. 4. The outer texture of Dodol is hard, while the inner part is chewy. 5. Ingredients used include glutinous rice flour, white sugar, milk, and coconut milk (Grapela, 2023).	Dodol and Galamai share similarities in the ingredients used. But they have different textures, flavor variations, and packaging. Dodol uses paper as a primary packaging because Dodol has an outer hard texture. Dodol also has a longer product shelf life than Galamai.

Table 1. Comparative studies
Source: authors

From comparative studies, it was concluded that two similar products using cardboard for secondary packaging and sealed again with plastic wrap on all cardboard. The use of cardboard aims to withstand the incoming light so that it does not cause reactions that affect product quality. Light-resistant packaging is packaging that is closed and not transparent, such as metal, paper, and foil (Leony et al., 2022). Also, two similar products seal their secondary packaging for extra protection.

Based on the collected data regarding the packaging of Galamai, there are several issues identified, including the susceptibility of Galamai to mold growth and rancid odor. This is caused by the high-fat ingredients used in Galamai, such as coconut milk (Murtius et al., 2021), and the application of oil on its primary packaging surfaces. The rudimentary packaging is due to the fact that it is generally produced by small and medium enterprises (SMEs). Additionally, there has been no training and knowledge provided to SMEs in packaging development.

After conducting the comparative study with similar products, an analysis of the TOR (Terms of Reference) for Galamai packaging needs will be carried out based on the collected data.

No.	Description	Requirements	Restriction
1.	Due to Galamai's sticky texture, the primary packaging utilizes materials with good barriers against oxygen and water. The use of a vacuum sealer can be recommended in an effort to extend product life. Vacuum	Galamai packaging must be capable of protecting the Galamai from dust, bacteria, and UV light by using UV filter color, thus maintaining product quality until the guaranteed shelf life (Julianti, 2017).	The packaging cannot use expensive materials because it is produced by SMEs (Small and Medium Enterprises) (Sutanto et al., 2021)

	sealers can help reduce oxygen levels and inhibit bacteria from appearing on food (Anggraini et al., 2022). Among the materials that can be used are aluminum foil and BOPP (biaxially-oriented polypropylene) (Julianti, 2017).		
2.	Galamai packaging has to include all information to ensure consumer safety (BPOM RI, 2020)	The packaging is able to provide consumers with the necessary product information. Among the information provided are manufacturer details, product composition, expiry date, and halal or SNI certification (BPOM RI, 2020)	-
3.	The use of cardboard is effective as a secondary packaging to protect from light (Leony et al., 2022).	The secondary packaging must be able to protect the product from physical damage and avoid light (Osira et al., 2020)	Cardboard should not be thin and transparent (Leony et al., 2022)
4.	-	Visuals of packaging can be utilized as silent sales through visually interactive forms (Metekohy et al., 2022)	-

Table 2. TOR (Term of References) analysis
Source: authors

Conclusion

The development of Galamai packaging is highly feasible, provided that important packaging aspects are carefully considered. Refer back to its function, packaging serves as a protector and preserver of product quality both before and after delivery to consumers. Products with good packaging and comprehensive information will influence consumers' purchasing decisions. Based on the current Galamai packaging, reconsideration of the materials used in both primary and secondary packaging is necessary. Using cardboard as secondary packaging can be applied to Galamai packaging. Similar products with the same characteristics, namely Jenang and Dodol, have used cardboard as secondary packaging to protect the product from light exposure. Additionally, consideration should be given to displaying essential information on the packaging to ensure consumer safety, such as composition, expiration date, manufacturing details, halal or SNI certification.

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