

The Sustainability of Traditional Packaging of Snacks and Beverages against Modernity

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ABSTRACT

In this global era, we notice that the modern material begins to replace traditional packaging of snacks and beverages with natural material. This study wants to examine the condition of traditional packaging of snacks and beverages and how modernity influencing decision to use the existing packaging. This study focuses on traditional packaging of snacks and beverages that exist in the northern coast of East Java, especially Gresik, Lamongan and Tuban. This is a qualitative descriptive research using survey, observation and deep interviews as its method. We classify the various functions of natural materials for snacks and beverages packaging namely as primary, alternative and additional packaging. Producers use packaging made from natural material as a function that cannot be replaced by modern packaging, such as material affect typical aroma of the product, provide a flavor according to the materials used, give specific traditional characteristic which being attached to products and make the product more durable. Along with the development of more modern era, natural materials getting more difficult to obtain because there is no more land to plant these materials, it makes the material price more expensive. Besides, modern practical packaging offers packaging with a more convenience and neat appearance. But it turns out that there are a variety of factors besides economic, such as social, cultural, and political that makes producers keep using natural materials and maintain traditional appearances in their products.

KEYWORDS: sustainability, traditional, packaging, snacks and beverages, modernity

In this modern era, the packaging that made from natural material begin to scarce, but in some areas in Indonesia there are still many snacks that are packed with

natural materials. As a country, which has a wealth of natural material, the use of natural materials especially for the packaging can be maximized. Unfortunately, many producers are starting to replace packaging materials that obtained from nature, with a more modern material such as plastic and paper. People who usually utilize the materials produced from natural surroundings, creating a unique shape, even add a design element that describes the local knowledge of their area, begin to compete with the shape, material and graphic elements that are considered more modern. This situation is exacerbated by increasingly the difficulty to find sellers of banana leaf, palm leaf, sugar palm (*aren*) leaf, midrib of betel (*pinang*) or *ope*, coconut leaf and others.

Among the various constraints in the use of packaging made from natural, we still notice some packaging made from natural as snack wrappers. Snacks include all kinds of cakes, often known as traditional snacks. Traditional snacks are also often included in larger categories namely traditional food. The traditional food is a food that has been entrenched in Indonesian society, and has been around since the ancestors of this archipelago (Muhilal in Sabana, 2007). According to Winarno (1999), traditional food is a food that is concentrated with local traditions. Hadisantosa in Sabana (2007) defines the traditional food as the food consumed by a specific ethnic group and region, prepared by recipes from generation to generation. The materials used are local and the food is produced in accordance with the tastes of society.

Some areas especially in the areas on the northern coast of East Java, the snacks are still using natural materials. We are interested in how and why natural materials are still being used in some of the snack in Gresik, Lamongan and Tuban. In addition to changes in the shape, material and design elements that can be visually be seen, we believe the consumption pattern changes in society is also associated with the change

of packaging used. The sustainability of traditional snacks and beverages in line with the changes in the pattern of the tradition that become modern that inevitably influence the decision to use packaging made from nature.

RESEARCH METHOD

This study is a qualitative research, and therefore involves an interpretation, a naturalistic approach where researchers investigate something by what it is, accept something that makes sense, and interprets a phenomenon in the meaning, which accepted (Denizen and Lincoln, 2002: 3). This study uses observations with field surveys and in-depth interviews. We use literature studies before conducting field studies and thereafter to support the data obtained in the field. These research areas are in the northern coast of East Java, especially Gresik, Tuban and Lamongan. The reason for establishing research sites in the northern coastal area are because we still can find the various traditional snacks and beverages that are packed with natural materials. Besides, this area has potential for economic development for small enterprises along the north coast. The coast area is covered by a wide variety of plants such as palm trees, sugar palm trees, and others leaves or midrib that often used by locals as a traditional snacks' wrappers. This study focus on traditional snack and beverages that use natural materials, but because of the existing of the various type of food that is packed with packaging made from nature, then we are also do a little review on the traditional food.

This research steps began with collecting data through literature study both online and offline on a variety of snacks and beverages and a variety of packaging made from natural that is still found in the northern coast of East Java. Furthermore, we conducted a survey to the sales of snacks, both in shops, markets and agents and distributors in Gresik, Lamongan and Tuban. In these areas, we purchased a number

of snacks products, made observation to different places of snacks producers that were limited to small and medium enterprises (UKM). These observations were conducted to answer the research questions about how the condition of producers that producing snacks and beverages with packaging that use natural materials. At the time of the survey, we conducted in-depth interviews with producers of producers of snacks and beverages, packaging producers and traders.

The next step was the analysis. Before analyzing, data obtained were categorized and analyzed to answer the research questions, especially about how and why they use packaging made from nature. This is important because the results will be much more focus and organized before interpreted to better explain the points of the concept (Lull, 1990: 180). Furthermore, in this research we make recommendations relating to the sustainability of the natural-based packaging material. We also learn from the literature as well as in-depth interviews with expert sources in the field of culture, culinary and packaging to complete the existing data in the field.

FINDINGS AND DISCUSSION

From Primary to Additional Packaging

Walking down the area on the north coast of East Java, we rarely find a variety of typical snacks and beverages packed with natural ingredients. We only find few of the traditional snacks that can be said as typical snacks in those areas, like *pudak* and *jenang* in Gresik, *wingko* in Lamongan and *legen* and *tuak* in Tuban. Some of the traditional product has no longer packaged in natural material. Plastic is the material most widely used for wrapping ranging from seafood such as anchovies, *lorjuk*, shrimp paste, and others. In addition to plastic, many snacks are wrapped into cardboard. Besides, mica is also a favorite packaging to wrap up some foods. Actual boundaries of typical snacks sometimes are not very clear, especially if the material used to wrap

are similar. Some snacks can still be found in other areas as well, and its packaging uses materials that are common and easy to grow in a variety of places such as banana leaves.

Among some snacks and beverages that use natural material, we classify the various functions of natural materials for snacks packaging first, the function of natural material for packaging as a primary packaging. This natural material cannot be or have not been replaced with other materials at least until these days. We find some snacks that still use natural materials as the main wrapper which are packaging of *pudak*, *lemper* (glutinous rice filled with seasoned shredded chicken wrapped in banana leaf), *nagasari* (traditional steamed cake made from rice flour, coconut milk and sugar, filled with slices of banana wrapped in banana leaf), *roko-roko* (glutinous rice contains coconut smeared with coconut milk wrapped in banana leaf), corn *pudak* wrapped in corn skin and *jenang* (porridge). In Gresik, we focus on the *pudak* product and *jenang jubung*. *Pudak* is a typical food of Gresik, which hardly can be found in other areas especially with its existing packaging. *Pudak* made from rice flour, sugar or brown sugar and coconut milk. These snacks wrapped with the "ope" or midrib of sugar palm as the main wrapper. Currently *pudak* has three variants, namely: *pudak* with white sugar, brown *pudak* which uses brown sugar and *pudak* with pandan flavor (Agustin, 2015). Consumer can buy *pudak* in a chain of five to ten pieces. By using *ope*, then people know that this snack is *pudak*. *Ope* is used as the main packaging of *pudak* because it has many advantages, these midribs are resilient, if observed carefully there is a layer of plastic. In the manufacturing process, the base of the skin of midrib of betel must be tanned prior to separating the outer and inner shell. Then, the inner skin is utilized. According to a number of producers of *pudak*, midrib of betel has a number of advantages, such as: strong, ductile and malleable. The inside of the leaf, there is a

layer that resembles plastic. This layer which can naturally regulate the temperature of *pudak* because containing pores (inigresik.com, 2015). This dough of *pudak* should be tied when still hot, the product needs to be cooled and dried, by aerated. Because wrapped with *ope*, *pudak* should be hung. Humid *ope* causes the growth of fungi, by hanging *pudak* then it is faster to dry. *Pudak* could not be stacked because the texture is soft and easily deformed. By hanging, the taste and quality can be maintained (Suharsih, 2016). In addition, we can easily recognise the hanging chain of *pudak* as a typical snack in Gresik. Regarding the efforts to replace the existing packaging with modern packaging, one of the *pudak* producers had tried to wrap *pudak* with teak leaves that used as *bakcang* wrappers but it was broken, the similar situation happens when she used banana leaf and palm leaf. Not all those leaves could be sewn. While the benefits of this *ope* is because there is a plastic membrane and pores, so *pudak* do not perishable. Nowadays, there is no *ope* in Gresik, producers have to buy *ope* in Jember, Malang Selatan or Blitar (Suharsih, 2016). Until now, we have never notice *pudak* packed with packaging other than *ope* in Gresik.

Another typical product is *jenang jubung* in Gresik. *Jubung* is white brownish sleeve, which made of midrib of betel. *Jenang jubung* in Gresik is also typical snacks, made of black glutinous and white sticky rice, sugar and coconut milk contained in small containers made of midrib of betel and sprinkled with sesame seeds on the top. This *jenang* is usually wrapped with woven bamboo contain of five *jenang* or in modern packaging like cardboard or mica plastic which contain six to eight *jenang*. (Agustin, 2015). *Jenang* products can be found in many areas, but what distinguishes *jenang* from Gresik and other areas is the use of *ope* as a container of *jenang*. There are various *ope* finishing process like sewn and staples. *Ope* that is stapled reflect something faster in packaging process. Unfortunately, staples can be harmful to

consumers if swallowed and can also make a corrosion on the product. *Ope* is used as primary packaging, but *jenang* should be wrapped again. Some choice of packaging materials used by producers, are basket of woven bamboo, cardboard or mica. Still there are producers who survive using baskets of woven bamboo. Woven baskets also contained pores which serves to reduce the moisture, so *jenang* is not easy moldy, especially the one with the sesame which can not last long. If sesame fried too dry, it will be charred, whereas if not dried, the sesame frying process will be raw, it is necessary for *jubung* to stay dry. The main constraint on the use of baskets is easy moldy and packaging cannot be stored for too long (Suharsih, 2016). Once, producers replaced the baskets with boxes and it turned out there were protests from consumers because the product smells like cardboard. According to the consumer, *jenang jubung* is more beautiful when using woven baskets especially served for the dish.

The second classification of packaging with natural material is as a main wrapper but other materials or which we refer to as alternative packaging, like wrapping *krawu* rice and palm sugar, can replace them. Midrib of palm and banana leaves is a material suitable for maintaining the aroma and flavor of the snacks. Then the use of these materials is difficult to be replaced with unnatural material (Agustin, 2015). Many of *krawu* rice is now wrapped in brown wrapping paper, but some producers still use banana leaves as the base of side dishes, it's still able to give a unique flavor to the *krawu* rice. To keep an impression of the traditional food, there is a producer who prints pictures banana leaves in brown wrapping paper. In Tuban we find palm sugar wrapped in palm leaves, palm sugar usually only wrapped with plastic. Wrapping the palm sugar with palm leaves makes the impression of a more traditional, although palm sugar has not been the typical souvenir from Tuban.

The typical drinks that are still using natural materials but have been replaced by jerrycan or now the plastic bottles are *legen* and *tuak*. Plastic bottles actually accommodate the needs of *legen* and *tuak* to be brought as souvenirs, but most of the producers choose secondhand plastic bottles which cheaper. Yet according to packaging experts, the use of bottles is not efficient because the producers have to wash, scrub and dry. Not to mention the chemical reaction that occur because rubbing or also dirt that still attached. Then the use of a new plastic bottle is more efficient in terms of time and effort even if it costs a little bit more expensive (Julianti, 2016).

Actually, farmers, traders and consumers even until these days, they are still use bamboo as a container of *legen* and *tuak* and to hold the palm water droplets, they named it *bethek*. Some of the society in Tuban has habit of drinking *tuak* once or two times a day, they still use bamboo instead of glasses, they named it *centhak*. Tuban traders formerly having *ongkek* for the distribution of *legen* and *tuak*, which carried and sold around. Unfortunately, *ongkek* does no longer exist; we can only see the miniature of *ongkek* as souvenir of Tuban. The use of bamboo in fact has the advantage where bamboo material can withstand the heat of the sun when the sugar palm droplets accommodated. As the heat retaining, bamboo can reduce the oxidation of sugar palm water into alcohol. Besides, bamboo can maintain a sense of *legen* to stay sweet, fresh, and not easily sour. Tuban farmers believe that bamboo can make their contents remain cool and not easily changed because of the temperature outside, maintaining the distinctive flavor of *legen* and *tuak*. Besides, bamboo can make the contents inside more durable (Sarju, 2016). Bamboo plants on specific areas such as Tuban seem easy to be found at that time. Bamboo itself is easy to grow, so the bamboo should be used, so its growth does not damage other plants. It is a quick-growing, versatile, non-timber forest product whose rate of generation is unsurpassed by any other plants. No other

plant material can rival the utility of bamboo. Even in the early years, bamboo had been used in many ways; bamboo is useful for various applications at different ages, at age six to nine months' bamboo can be used for making baskets (Adam, 2003). Because of the nature of bamboo are easy to grow, then bamboo unnecessary cultivated. Utilization of bamboo as a packaging though in a small scale can be a form of environmental preservation.

Third, natural material can be functioned as additional packaging that only serves to beautify or give the impression as a traditional product. Natural materials are often only serves as an ornament to highlight the impression of a natural or traditional. While modern packaging is often become the primary packaging such as plastic which is now a considered the most inexpensive and practical where most of snacks has been wrapped by plastic. Interestingly, we found in the field when products wrapped in dried teak leaves, then wrapped in plastic. It turns out that leaves only serve as decoration for the shrimp paste, the dried teak leaf is placed between the plastic.

In Lamongan, there is a snack called *wingko* that was once wrapped in banana leaves, but since paper was found, all the *wingko* packaging from banana leaves switch to paper packaging. *Wingko* is a product that can last one to two weeks is usually taken as a provision. For coastal communities whose livelihoods are fishing, formerly angler usually carries *wingko* on when sailing. The packaging of banana leaf cannot last long, unlike when wrapped with paper. Currently *wingko* with paper packaging needed not only for provision but rather to souvenirs outside community of Lamongan. Eventhough *wingko* is packed in paper but *wingko*' producers still use a mat of banana leaves in the oven, it is intended that *wingko* not stick in the mold and give a typical aroma (Gondokusumo, 2016).

Traditional Packaging against Modernity

Most producers stated that they use packaging made from natural because a function of the material cannot be replaced by modern packaging, such as material affect typical aroma of the product, provide a flavor according to the materials used, make products that are packed more durable, have material functions that do not exist in modern packaging and a characteristic that becomes a tradition attached to the product.

The shift of traditional packaging to modern packaging is caused by several factors such as the modern packaged product more durable, while the products if it uses natural materials are less resilient, so it need adjustments. It is as happened in the *wingko* that previously using banana leaves but now put on paper. *Wingko* can last one to two weeks with sugar as a preservative, while banana leaves last only one to two days in good condition. The second factor is due to the need of producers for their products can be last longer and carried to another place, such as *legen* and *tuak* that purchased as souvenirs placed in jerry can and now more widely used plastic bottles. Another factor is the scarcity of materials, such as banana leaf, ope, sugar palm leaf, coconut leaf which are increasingly difficult to obtain, the more rarely sold thus become more expensive. From the producer side we see that the condition as producers is awry. On the one hand, there is the desire of producers to use natural materials to give a characteristic of the product, but on the other hand along with the development of an increasingly modern, natural materials more difficult to get because there is no more land to plant these materials, as a result of farmers, sellers and craftsmen become less so the price of the material become more expensive. Besides, modern practical packaging offers convenience packaging with a more presentable appearance.

The question is why producers keep using the natural material even though it does not exist in that area. Packaging design made from nature is highly vulnerable to be changed into the modern packaging, but there are many other factors that make producers and consumers continue to use packaging made from nature. Functionally, it turns out that natural materials have advantages and functions that cannot be replaced by other materials or the natural material have impact on the product being wrapped. Socially, people can not necessarily accept the change of packaging. Knowledge that inherent in the minds of consumers towards a product is not easily removed or changed just like that. Culturally, the use of natural material become a habit for certain society so it cannot easily replaced by modern one. Product wrapped in natural material become a characteristic of snack in that area and continues to be used for maintaining and improving the image of the area, for example to obtain *pudak*, consumers have to go to Gresik. Politically, the use of natural materials can be arranged as to keep the preservation of the environment such as bamboo. For local government, the use of natural material can give typical characteristic to the regional top product that can enhance the image of the local government. Actually, packaging made from nature can be recalled with several conditions, among others: bring back the exoticism of the material because of the scarcity of snacks wrapped with the natural material, giving myths and attach the religious system, but in this case it does not happen (Carlos, 2016).

With the shift of the use of packaging made from natural, that is said to be traditional to the modern one, this also affect the process of packaging production, distribution and consumption. The process that formerly dependent on nature that uncertain, at this time becomes more certain because of the material comes from the supply of the industry. Production of the packaging that was once limited because of

manually handmade can now be mass-produced using technology. In the past, most of the snacks were produced for own consumption or for sale in a limited circle, but now the time for consumption can be longer so the products can be sell as souvenirs. Storage of food and consumption pattern is also longer because the snacks are more durable. Distribution, which formerly had to be quick, this time, can be longer.

Meanwhile, related to packaging with natural material, more wasteful consumption pattern seen in early due to the pluck of the leaves or midribs, but it is actually also occurred in packaging made from paper. As for the use of plastics in the beginning seem do not disturb the ecosystem, but it will bring the impact of waste on the environment. When we compare the whole processing among natural materials, paper and plastic, plastic turned out to be more energy-efficient than paper but causing an environmental pollution (Julianti, 2016). It could be said that the most environmentally friendly is a natural material, but are often constrained by the scarcity of materials. Some of the materials begin to be replaced with a more modern with instant process.

CONCLUSION

The sustainability of traditional snacks and beverages packaging made from nature against modernity is not easy. The use of natural material that represent product as traditional product is getting less. Producers begin to consider and make some experiment to use modern material especially because of the difficulty to obtain the natural material in their area. Natural materials are still used when it has impact on the snacks and beverages. Producers use packaging made from natural material because it has many advantages in the product that being wrapped such as provide typical aroma and flavor to the product, give specific traditional characteristic which is known by the public and the characteristic of material make the product more durable. The

sustainability of the packaging with natural material is close to the function of the material, especially the economic factors, but it turns out that producers keep using natural material and maintain traditional appearance in their products also due to the condition of social, cultural and political.

Many parties can involve in the sustainability of the traditional snacks and beverages packaging with natural materials. The role of government can make regulation of land preservation and continue to encourage the plants that can be used as packaging. The government and private agencies is expected to order traditional snacks as the dish at the official meetings and so forth. The producers are also expected to keep using natural materials by not only consider the economic factors but also social, cultural and political factors. The society hopefully can have greater appreciation for the preservation and sustainability of natural snacks made by buying traditional snacks and beverages that are packed with natural material. In academic field, educators can support the realization of innovations in the form of shapes, designs and functions of packaging made from nature.

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