

# **Developing Brand Image For Food And Beverage Products With The Application Of Packaging Design In The Era Of Industrial Revolution 4.0 In Sidoarjo**

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## **Abstract**

*Challenges for the development of the Industrial revolution 4.0. will lead to increasingly fierce competition in various business fields. UMKM is a business that is vulnerable to the development of industry 4.0, if it is not properly anticipated. The determination of Sidoarjo Regency as a city of MSMEs must be welcomed with support from the circle, as well as the joint decision to go-online for UMKM by the Ministry of Cooperatives and SMEs and the Ministry of Communication and Information of the Republic of Indonesia. For the local government of Sidoarjo Regency and e-commerce businesses together, it is necessary to carry out a National Movement for digitizing MSMEs to encourage the strength of the national economy based on MSMEs. Considering the important and strategic efforts of the central and regional governments of Sidoarjo Regency in advancing these MSMEs, this research was conducted to help MSME food and beverages more empowered through the application of packaging design design technology, to be a product connected to on-line marketing through packaging that good and can make food and beverage products, able to compete in a free and modern market widely. In general, the main problem faced by MSME business actors in the food and beverage sector is being able to produce but not being able to package properly, so that even good products cannot compete in the market because the packaging does not support the product to be widely sold.*

*The research objective is to empower MSME players with the application of packaging design technology for food and beverage products, so that MSME businesses in both fields can develop their brand image so that they can compete in free markets, both on-line and off-line.*

*The research method was carried out as follows: Conducted limited trial of developing brand image of food and beverage products for MSME products, through designing packaging designs that are acceptable to the market with certification of distribution permits from authorized agencies in the Geluran Taman Sidoarjo neighborhood, to increase product marketing to modern markets while still referring to packaging based on total quality control, in order to maintain consumer confidence.*

*Thus, it is hoped that more food and beverage products can be developed into regional superior products through this applied research.*

**Keywords:** *Brand Image, Design, Packaging, Food, Sidoarjo*

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## **I. Introduction**

### **1.1. Background**

Sidoarjo Regency Government is one of the regencies in East Java located in the ring area of the big city of Surabaya, namely Gerbangkertasusila, as a supporting area for the metropolitan city of Surabaya. Economically, Sidoarjo Regency has become a regency that protects the development of UMKM businesses so that Sidoarjo Regency gets the nickname as the Regency of MSMEs. The main weaknesses of MSMEs are in the field of capital and the ability to maintain production quality as well as poor packaging designs. Especially regarding the packaging of food and beverage products from MSMEs, in general, they are less able to make packaging that can represent the products being made, and are able to promote themselves through visual communication design packaging made for food and beverage products from MSMEs. Various foods and drinks that are typical in the city of Sidoarjo, among others; Rawon, Soto, Jamu Kencur Rice, Honey Lemon, Honey Cucumber and others.

The various small businesses that have developed in the city of Sidoarjo have inspired the Sidoarjo regency government to make it a city of MSMEs. The vision of making Sidoarjo as a city of MSMEs is very reasonable because, theoretically, the development of MSMEs (Micro, Small and Medium Enterprises) is able to increase inclusive economic growth because the MSME sector is able to absorb quite a large workforce, does not require high capital and is relatively unaffected by shocks. fluctuation of foreign currency exchange rates.

In 2018, in Sidoarjo Regency there are 206 thousand UKM Sidoarjo which will be the targets of the UMKM Go Online program from the Ministry of Communication and Information of the Republic of Indonesia, "said Deputy Regent of Sidoarjo H. Nur Ahmad Syaifuddin, Wednesday (8/11/2017). The 206,000 businesses, which are divided into 125,000 Micro Enterprises, 50,000 Small Businesses and 25,000 Medium Enterprises. Based on the 2017 General Budget Policy (KUA), MSME development is one of the strategic issues that the Sidoarjo Regency Government must work on in 2017. Based on this description above, it is necessary to have a study in an effort to promote micro, small and medium economic enterprises as superior regional products of Sidoarjo Regency, as follows: Fruit chips, sweet potato chips, Banana Sele, Various products of grass jelly leaf drink, etc.

In an effort to accelerate the process of economic development as an effort to increase the prosperity and welfare of the community, it must be in line with the Sidoarjo Regency Medium Term Development Plan (RPJMD) as stated in the Regional Government's mission as follows: "Sidoarjo Prosperous, Independent and Justice", thus empowering community actors. UMKM businesses, especially in the food and beverage sector, are very important to develop their competitiveness through packaging that can increase the brand image of food and beverage products produced by MSMEs in Sidoarjo Regency.

### **1.2. Research Problems**

How to increase the brand image of food and beverage products for the MSME group through designing packaging designs so that they can compete in the market in the era of the industrial revolution 4.0?

### **1.3. Destination**

To describe and analyze the increase in the brand image of MSME food and beverage products through packaging design designs so that they can be accepted by the market in the industrial era 4.0.

## **II. Literature Review**

### **2.1 Definition of Packaging**

According to Cenadi (2000), packaging can be defined as all activities of designing and producing a container or packaging or packaging of a product.

There are three main reasons for packaging, namely:

1. The packaging meets the safety and benefit requirements. Packaging protects the product on its way from producer to consumer. Packaged products are usually cleaner, more attractive and more resistant to weather-induced damage.
2. Packaging can carry out marketing programs. Through packaging, product identification becomes more effective and by itself prevents exchange by competing products. Packaging is the only way companies differentiate their products.
3. Packaging is a way to increase company profits. Therefore the company must make the packaging as attractive as possible. With a very attractive packaging, it is hoped that it can attract and attract the attention of consumers. In addition, packaging can also reduce the possibility of damage to goods and facilitate delivery.

### **2.2. Impulsive Buying and the Effects of Packaging Design.**

The packaging of a product is expected to provide maximum contribution in an effort to attract consumers to use the packaged product. The desire or interest to buy from an attractive packaging is known as Impulsive Buying. According to Rook D.W in Cahyorini & Rusfian (2011), Impulsive Buying is the tendency of consumers to buy spontaneously, reflexively, suddenly and automatically. From this definition, it can be seen that impulsive buying is something natural and is a quick reaction to the effect of a good packaging design and invites consumers to like and choose the products offered to consumers. Impulsive buying occurs when consumers enter a retail store and it turns out that they buy the retail product without planning beforehand, is a form of the success of the packaging design that is made.

Emotions are concerned with solving limited or spontaneous purchasing problems. They make purchases without thinking for what the purpose of the goods they buy, as long as the customer is satisfied. Impulsive buying is driven by affective forces beyond individual control (Tendai & Crispen, 2009).

Impulsive buying is an activity based on a person's emotions that arise because of a feeling of interest in certain products. This, of course, begins with looking at the packaging of the product, so that consumers know, and are then interested in buying the packaged product. This is done quickly without thinking first, therefore the presence of the impulsive buying factor for consumers is an opportunity for a packaging designer to invite consumer interest in making buying decisions, by paying attention to the psychological aspects of consumers in the packaging design design. In this case, packaging design must pay attention to the psychological aspects of target consumers, because in the decision to buy a product, emotions are involved in the demands of meeting the needs of life quickly.

### III. Research Methods

The research method used is the method of action research or applied research, to develop the brand image of MSME food and beverage products which are the objects of research at the research location that has been determined by the research team, in collaboration with community partners who are entrepreneurs of MSME-level food and beverage products to be developed later. brand image of the product.

From the food and beverage products that have been used as the object of research, then together with the team and partners, the appropriate packaging design is carried out based on the existing packaging theory to be marketed on a limited basis to the public, in order to get feedback on the packaging design design applied to food and beverage products. the.

Food and beverage products that have been given a final packaging design, are then marketed both off-line and on-line, to obtain response and acceptance from targeted consumers.

In the framework of developing a product brand image in the era of the 4.0 industrial revolution, researchers market the packaged products, through various social media, to then get feedback about the packaging design made and also market acceptance of the packaged product, as a test test. market acceptance on-line.

At this stage, various prototypes of food and beverage product packaging from selected MSMEs were produced based on samples of food and beverage products that are widely developed in Sidoarjo Regency.

### IV. Research Results And Discussion

#### 4.1. Research Location Overview

Sidoarjo Regency as one of the buffers for the capital city of East Java Province is an area that is experiencing rapid development. This success was achieved because the various potentials that exist in the region such as industry and trade, tourism, and small and medium enterprises can be packaged properly and with direction. With the existence of various regional potentials and the support of adequate human resources, in its development Sidoarjo Regency is able to become one of the strategic areas for regional economic development. Sidoarjo Regency is located between 112o5 'and 112o9' East Longitude and between 7o3 'and 7o5' south latitude.

The most densely populated districts are Waru, Taman, Sidoarjo, Candi, Krian, Gedangan, Sukodono, Sedati, Tanggulangin, Buduran, Tulangan, Porong, Wonoayu, Prambon, Balongbendo, Krembung and Tarik. The population growth in Sidoarjo Regency, is not due to the high birth rate, but rather due to urbanization as a result of the growth of the industrial and housing sectors in Sidoarjo as well as a buffer zone for the City of Surabaya.

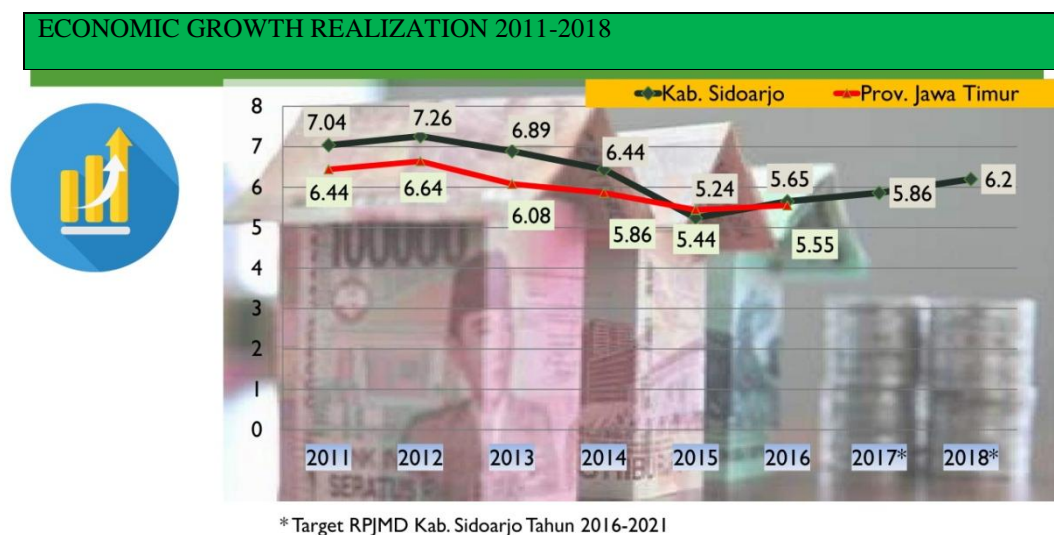


Figure 4.1. : Economic Growth in Sidoarjo Regency

Fisheries, industry and services are the main economic sectors in Sidoarjo. The Madura Strait in the east is a fishery producing area, including fish, shrimp and crab. The district logo shows that shrimp and milkfish are the main fisheries commodities of this city. Sidoarjo is also known as "the City of Petis". The industrial sector in Sidoarjo is growing quite rapidly due to its proximity to the East Java (Surabaya) business center, close to the Tanjung Perak Port and Juanda Airport.

#### **4.2. Various Food and Beverage Products Typical of Sidoarjo in Geluran Village, Sidoarjo.**

The various types of food and beverage that have been oriented to get a study by the research team, because they have good potential to be packaged so that they can be marketed more widely, are as follows:

Lontong Kupang, clam satay, Brain milk milkfish, Ote-ote, Lontong Balap, Prawn crackers, smoked milkfish, presto milkfish, Petis, Rawon DiLan, Sambel Bawang, Fried Onions, Sambal Terasi, Rawon Seasoning, Virgin Coconut Oil, VCO Soap, Telon Oil, Massage Oil, Lips Gloss, etc.

The stages of the implementation of potential food and beverage selection to be empowered through packaged houses, can be described as follows:

##### **4.2.1. Sambel Terasi Product From Mrs. Mulyanah**

###### **a. How to make it**

Thinly chop garlic, shallots, coarsely blend all chilies. Heat the cooking oil and add the garlic and red slices until fragrant, then when it smells good, add the chili that has been blended coarsely for 10 minutes and mix in the lemon juice. After that, add the shrimp paste, salt, powdered chicken broth and just a little sugar. Stir all ingredients until blended. The spicy chili paste is ready to pack.

###### **b. Ingredients**

¼ kg of garlic, ¼ kg of shallots, ½ kg of bird's eye chilies, ¼ kg of large red chilies, 1 ounce of curly chilies. 2 lemons, hot cooking oil (to taste). Paste and salt (to taste), powdered chicken broth (to taste), sugar (just a little, one pinch).

###### **c. The way of packaging**

After the chili paste is cooked, remove it from the stove and let it stand for a while until it is lukewarm, then put it in a plastic bottle then cover with aluminum then put it in the pressing tool and label it and finally seal it with a plastic seal using a hairdryer heater so that it lasts long.



Figure 4.2. : Sempol products from Mrs. Sunarsih

##### **4.2.2. Sempol food**

###### **a. How to Make**

1. Prepare the cleaned chicken, 2. Add the garlic and shallots. Blend until well blended. Add sago or tapioca flour, wheat flour, garlic powder, white pepper, salt and sugar. Blend again. 3. Slowly add the water and chicken eggs. Blend until everything is well blended. 4. Dab hands with oil. Take a little dough and wrap it on the skewer. Do this until the dough runs out. 5. Prepare a saucepan over medium heat to boil the coil sempol earlier. Boil until the water boils and the sempol coil floats. Remove and drain. Chill. 6. Heat the oil to fry over medium heat. Mix the sempol one by one into the beaten egg and flour panir. After the hot oil, fry the sempol until it turns golden yellow. Serve.

###### **b. Ingredients**

Ingredients: 250 grams of ground chicken, 60 grams of wheat flour, 100 grams of sago flour, oil  
Seasonings: 3 cloves of garlic, 4 cloves of red onion, 1 teaspoon of garlic powder, salt, powdered white pepper, sugar, 50 ml water, 1 egg egg, skewers.

### c. Packaging Way



Figure 4.3. : Sempol Food Packaging

#### 4.2.3 Rawon Seasoning Products from Mrs. Mulyanah

a. How to make it: Blend all ingredients until smooth, Saute ground spices, galangal, lime leaves, and lemongrass until fragrant for about 1 hour, After the fragrant spices add the cooking oil to heat then cook again for about ½ hour until the spices don't pop anymore. . Remove from the stove and the rawon spices are ready to be bottled.

b. Ingredients Ingredients: 10 pieces of fresh kaffir lime leaves, 5 crushed lemongrass, 5 tablespoons tamarind water, 5 leeks, sliced 1 cm in size, 3 packs of cooking flavoring, cooking oil, ground spices, ½ kg of garlic, ½ kg of shallots , 1 kg of geprek keluak and soak the contents in hot water, 1 ounce of hazelnut, sangria, turmeric, roasted.

c. Packaging Way Rawon seasoning that has been ripe in a warm state put in a bottle that is closed with aluminum foil and pressed with a pressing device, then labeled.



Figure 4.4: Rawon packaging in plastic bottles

#### 4.2.4. Krispi Fried Onions from Arifin's mother

##### a. How to make it

1. Choose the number one quality onion suitable for fried onions, namely fresh onions and low water content. Shallots have many varieties such as Bima, Brebes, Ampenan, Sumenep, Maja Cipanas, Medan, Super Philip, India and many other types. Usually to be used as fried onions, the type of onion that is suitable for use is Sumenep-madura onion. The shape is slightly oval, the water content is relatively low and the texture is crunchy. Or you can also use the flavorful type of Brebes onion.
2. If doing it manually, slice the onion as thin as possible using a sharp knife. Or use a slicer to get the same thickness of the onion slices.
3. Soak the onion slices with a salt solution for about 25-30 minutes. The ratio of the marinade, 1 tablespoon of salt to 1 liter of water. After that, drain.
4. After soaking in salt water, before drying it in the sun, sprinkle the onions with enough flour or cornstarch. Or sprinkled with a mixture of flour and starch also produces crispy fried onions. Flour ratio 1: 1.
5. Dry the onions for 1-2 hours using a flat container, spread evenly so that the onions dry evenly.

6. When frying, use a lot of oil so that the onions are completely submerged. Fry the onions over medium heat and until golden yellow and remove. The heat that remains after the frying process can make the onions more brownish in color. Therefore do not be negligent when frying, because the onions can be bitter because of it.

7. After the frying process, drain the onions until all the oil drops. Spread it on food paper towels so that the remaining oil can be absorbed properly.

8. After the onions have cooled, place them in a clean, tightly closed container, so that the onions remain crispy. Store the container of fried onions at room temperature and not damp.

**b. Ingredients**

Ingredients: shallots, salt and cooking oil.

**c. Packaging Way**

1. The fried shallots are then drained using a spinner so that the oil content is reduced so that the fried onions are crispy and durable.

2. After the fried onions are dry then the next step is to put them in a bottle then cover with aluminum foil and press them with a pressing device so that they can last for months.



Figure 4.5. Bottled Fried Onions

**4.2.5. DiLan Canned Rawon Products**

**a. How to make it**

Boil the beef and beef knee until it is half soft. Cut the meat according to taste. Set aside. Enter the flavoring into the meat cooking water. Saute ground spices, galangal, lime leaves, and lemongrass until fragrant and cooked. Put the cutlet into the stir fry, cook until the spices are absorbed. Enter the sauteed meat into the broth. Cook over low heat. Rawon ready to be packaged in cans.

**b. Ingredients**

500 grams of beef brisket, 1 beef knee, halved, 3 pieces of fresh kaffir lime leaves, 1 stick of lemongrass, crushed, 1 tablespoon tamarind water, 2 spring onions, sliced 1 cm in size, 3 packs of food flavoring, 3 liter of water, 5 tablespoons of cooking oil, ground spices, 4siung garlic, 8 pieces of red onion, 5 pieces of keluak, crushed and soak the contents in hot water, 4 grains of hazelnut, sangria, 1cm of turmeric, roasted.

**c. Packaging Way**

1. set aside the rawon meat with the broth, then fill the can each 1 ounce of meat.

2. Cans that already contain meat are given hot rawon sauce

3. After that, close the can using the Autoclave machine

4. then after the can is tightly closed, put it in the seamer machine for about 15 minutes until the rawon meat is tender.

5. after cooking remove and put in a tub filled with cold water so that the can cool quickly, then wipe clean and dry

6. After the cans are cold and dry the next step is labeling.

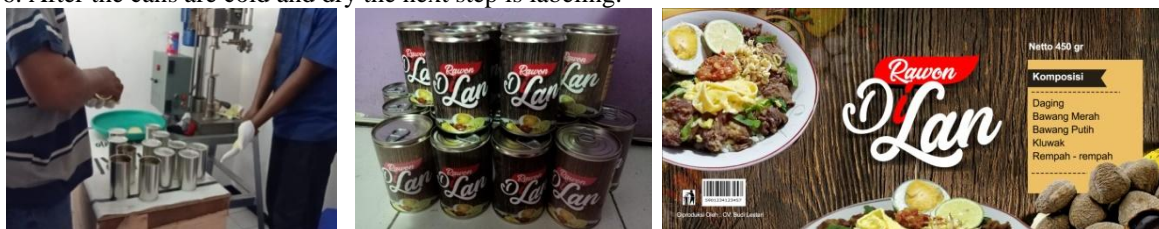


Figure 4.5. Rawon in Canned Packaging

After that, after completing the packaging, various food and beverage products of umkm are then marketed both on-line and off-line to be accepted by the market, both local and national. As for getting a significant product brand image, up load on various social media, both face book, Twitter, Instagram, WA, online stores and others, is carried out with a distribution permit that is included from the authorized agency, both the health service and BPOM in accordance with applicable regulations .

**4.3. Based on the results of the above action research, it can be argued that the development of a brand image for food and beverage products with the following criteria:**

Any information regarding food in the form of pictures, writing, a combination of both, or other forms included in food and beverages, inserted into, attached to or part of food packaging, at least the things that must be included are as follows:

**1. Product Name**

Besides the name of the food ingredient, the trade name can also be included. Domestic products are written in Indonesian, and can be added in English if necessary. Products from abroad may be in English or Indonesian.

**2. Product Description**

Product descriptions usually define specific packaging contents and include the product's range, features, taste or benefits. Usually this explanation uses the basic typeface because it is a supporting element. If the product description is a means of distinguishing between the variety and taste of a product, the product description can be designed as part of the product line's clan.

**3. List of materials used.**

The composition (ingredient) of the preparation of the product including the food additives used must be stated in full. The order starts with the most, except for vitamins and minerals. The composition statement should be an easy-to-read typeface, all printed in black or one type of color on a white background or other neutral contrasting color. Typical specifications are determined by law enforcement agencies and before a packaging design is produced, the law enforcement authorities must approve the design information.

**4. Net weight or content**

Net weight is expressed in a metric. For solid food, it is expressed in units of weight. For semi-solid or thick food, it is expressed in units of volume or weight. For solid food in liquid expressed as total weight. The typeface must be clear and easy to read. Font types cannot be more than three times their width, and letters should be sufficiently contrasted against the background to make reading easier.

**5. Name and address**

The name and address of the party producing or importing food into the territory of Indonesia, the label must include the name and address of the manufacturer / packer / importer. Imported food must be accompanied by the country code of origin. Street names do not need to be included if they are listed in the phonebook.

**6. Information halal**

Inclusion of halal writing is regulated by a joint Decree of the Minister of Health and Minister of Religion No. 427 / Menkes / SKB / VIII / 1985. Currently the halalness of a product must go through a testing procedure carried out by an accreditation team by LPPOM MUI, POM agency and the Ministry of Religion. Written halal written in Indonesian or Arabic.

**7. Date, month and year of expiration**

The shelf life of food products can be written as:

a. Best before date: The product is still in good condition and can still be consumed some time after the stated date has passed.

b. Use by date: The product cannot be consumed, because it is dangerous for human health (a product that is easily damaged by microbes) before the stated date has passed. Permenkes: 180 / Menkes / Per / IV / 1985 confirms that the date, month and year of expiration must be clearly stated on the label, after the inclusion of best before / use by. Apart from that, other information that can be stated on the packaging label is the registration number, production code as well as instructions or methods of use, instructions or storage methods, nutritional value as well as special writing or statement. Registration numbers for domestic products are assigned the code MD, while foreign products are assigned the code ML. The production code includes: the date of production and other numbers or letters that characterize the production batch.

## 8. Nutritional Value

Nutritional value must be stated for food with fortified nutritional value, diet food or other food as stipulated by the Minister of Health. Nutritional information that must be included includes: energy, protein, fat, carbohydrates, vitamins, minerals or other components. For others, it may not be included.

## 9. Claims

The general requirement for a statement (claim) that is stated on the packaging label is the inclusion of nutritional information which provides information to consumers including information on the amount of nutrients contained, but not an indication of how much to eat.

There is a model that can be recommended for development

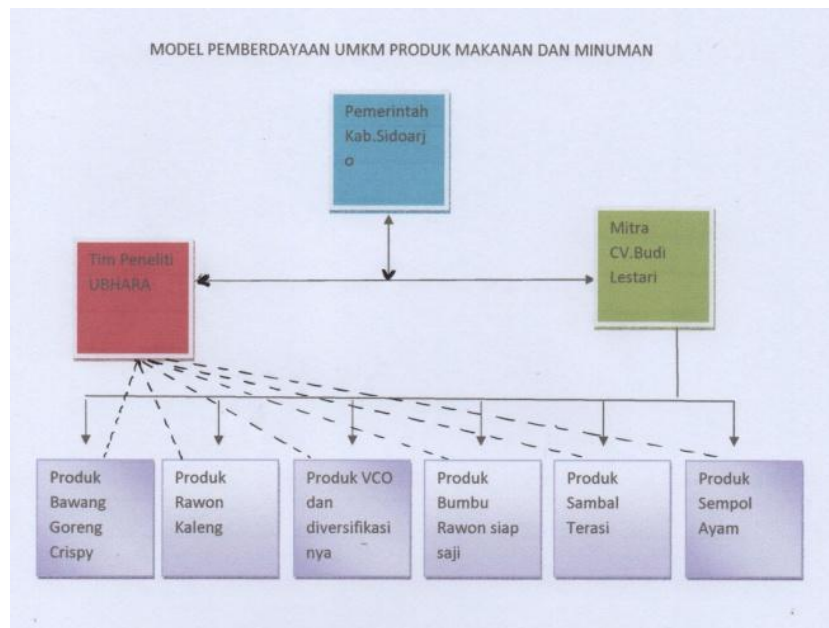


Figure 4.1. Empowerment Model of MSME for Food and Beverage Products

## V. Conclusion

From the results of the research and discussion above, it can be concluded as follows:

1. There is a lot of food and beverage potential that develops in Sidoarjo Regency to be developed into potential food and beverage products to be widely accepted by the market.
2. By designing the packaging design, various licenses and distribution permit certificates are required that enable these foods and beverages to be marketed more widely to penetrate both local and national and even global markets.
3. The design of quality packaging designs that meet international standards makes the product brand image high and acceptable to the modern market which allows local products to be exported into global products.
4. In developing a product brand image, innovation and creativity involving three parties, namely, government, universities, and the community, business actors are very important to be used as a model for community empowerment for developing food and beverage product brand images for small, micro and medium enterprises.

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