

CHAPTER II

LITERATURE REVIEW

2.1 The Definition of Innovation

There are some definitions of innovations. According to Tiwari (2008, p.1) innovation is the implementation of a new product that is significantly improved goods or services, a process, new marketing methods or new organizational methods in business practice. Moreover, Rogers (1983, p 11) stated that innovation is an idea, practice, or object that is considered as a new product by individuals or other adoption unit.

In addition, the researcher concluded that innovation is the implementation to improve a new product (goods or services), an idea or practice by individual or other unit of adoption.

2.2 Bolu Suri

There is some information about Bolu Suri from the expert. One of them is from Wijaya. Wijaya (2017) claimed that Bolu Suri is similar to other cakes. It has a round shape with a hole in the middle of cake because many people of Palembang are often cooked Bolu Suri by using a round baking pan. Usually, Bolu suri called Suri which means a comb in Palembang language because it has fibers which is similar with a comb. The appearance of Bolu suri is little bit like Bika Ambon, but the main ingredient of Bolu Suri is only use wheat flour. It is different from Bika Ambon which uses wheat flour and tapioca. The traditional food of Bolu Suri is always served when there is a big days, especially when it comes to the *Eid/ lebaran* days.

2.2.1 The Ingredients of Bolu Suri

Every cake has its own ingredients. According to Wijaya (2017), there are seven ingredients of making Bolu Suri. The ingredients are whear flour, yeast, water, egg, sugar, sweetened condensed milk and margarine. The ingredients of Bolu Suri can be described as follows;

a. Wheat Flour

Wheat Flour is the main ingredient to make bolu suri which comes from wheat seeds (Aceng, 2008 p.11). According to Mudjajanto and Yulianti (2004, p.11-12), there are three kinds of wheat flour;

1. High protein flour which has strong gluten and the protein content of this flour is consisting between 11-12%. Usually, this flour is used to make noodle and bread.
2. Medium protein flour which has medium gluten and the protein content of this flour is consisting between 10-11%. Usually, this flour is used to make noodle, bread and household necessities.
3. Low protein flour which has low gluten and the protein content of this flour is consisting between 8-9%. Usually, this flour is used to make cake, cookies and cracker.

In short, there are three kinds of wheat flour. They are high protein flour, medium protein flour and low protein flour. Based on three kinds of wheat above, the best flour to make Bolu Suri is the medium protein flour because it is often known by the name of versatile flour and it is flexible enough for all types of cuisine.

b. Yeast

Yeast is known as baker's yeast because it has function to expand the dough. According to Kholif et.al (2016) stated that yeast is known as baker's yeast or brewer's yeast has function to ferment the bread or drink alcohol in wine production. Furthermore, Lestari (2017) mentioned that yeast are divided in to three kinds of yeast, there are:

a. Compressed yeast

This type of yeast is made of cream mushroom and still has a wet texture. This yeast has high water content which is very easily to damage. Therefore, the wet yeast should be stored in the refrigerator and the period of storage is approximately 8 weeks from the production.

b. Dry yeast

This type of yeast has a drier texture than compressed yeast. Yeast is included in the semi-active type so when the yeast will be used it should to activate the yeast first by settled in the water until the yeast can be expanded. This yeast has a longer shelf life of about 2 years from the production.

c. Instant yeast

Instant yeast is also known as fast-rising yeast because it works very fast to expand the dough. This yeast is often relied on by the bakery because it can make the dough expand quickly, especially if there is only a short time though.

In short, yeast has function to ferment the bread or drink alcohol in wine production. Based on three kinds of yeast above, the best yeast to make Bolu Suri is instant yeast because it can work very fast to expand the dough of Bolu Suri.

c. Water

Water is very important in maxing of foodstuffs because water can affect the appearance, texture and also the taste of food. Furthermore, water has function as a solvent, influence on density of dough and develop of protein in the flour which can hold the gas from baking powder (Faridah (2008, p.302) in Ningrum (2012, p.26))

d. Egg

According to Suprapti (2002, p.13) in Aris (2013, p.13), egg is one of product that has a complete nutritional content. Every 100 grams of egg contain of protein, various vitamins, fats, thiamin, carbohydrates, calories and minerals are also contained in eggs. Suprapti (2002, p.15) mentioned that Egg usually used for making the cake is the good quality of chicken eggs and generally has a brown pastel color to red chocolate color with a weight between 50-70 gram per grain. According to Sutomo (2008) in Artaty (2015), eggs have function to binds the other ingredients, soften the cake texture, moisturizes, provide a savory taste and increase the nutritional value.

In short eggs have complete nutritional content and it has function to bind the other ingredients, soften the cake texture, moisturizes and provides a savory taste.

e. Sugar

According to Faridah (2008, p.300) in Ningrum (2012), sugar is made of from sugar cane distillation. The sugar that often used in making cake is refined sugar caster because it is easy to dissolves in the dough. In making the cake sugar has some function, there are to give a sweet taste, to keep moisture and to give the color on the skin of cake.

f. Margarine

Margarine is artificial butter. It can be made of vegetable oil or animal oil (Ningrum, 2012 p.24). Besides that, according to Sutomo (2008) in Artaty (2015), Margarine has solid texture and it is contains from fat between 80%-85% and salt between 5%. Furthermore, Sutomo (2008) mentioned that margarine is usually made of palm oil, coconut oil, soybean or corn.

g. Sweetened Condensed Milk

According to National Standard of Indonesia (2011), sweet condensed milk is milk products in the form of a viscous liquid which obtained from the mixture of milk and sugar by removing a portion of the water until it reaches a certain concentration level or reconstitution of milk powder with the addition of sugar. Milk has function to add nutrients, to give the taste and aroma of cake, able to keep the fluids and to control the desired crust color of the cake (Faridah, 2008 p.302).

2.2.2 Standard recipe of Bolu Suri

Standard recipe was used to measure the ingredients which used by using a scale. The ingredients that need to be scale are; wheat flour, yeast, water, eggs, sugar, margarine and sweet condensed milk. The standard recipe of Bolu Suri can be seen as follows:

Table 2.1: Standard Recipe of Bolu Suri as cited in Wijaya (2017)

No	Ingredients	Measure
1	Wheat Flour	100 gr
2	Yeast	11 gr
3	Water	125 ml
4	Eggs	15 eggs
5	Sugar	350 gr
6	Margarine	100 gr
7	Sweet Condensed Milk	2 sachet

2.2.3 The Process of Making

There are some process of making Bolu Suri. Wijaya (2017) stated that the process of making Bolu Suri are; the first steps is mix the white flour, instant yeast and mineral water. The second steps is mix well that three ingredients, cover it with napkin or linen and wait until 30 minutes. The third steps is after waited for 30 minutes add eggs,sugar, sweet condensed milk, eggs, and margarine that has been diluted. The fourth steps is mix well and pour the dough into the baking pan that has been smeared with margarine and sprinkle with the little of white flour. Then, the next steps is cover the dough with napkin or linen and put it into oven or on the stove without fire and wait for approximately in 1 hour. The last steps is after waited for 1 hour oven/ cook the dough with small fire approximately in 45 minutes

2.3 Banana

2.3.1 The Information about Banana

Banana is one of fruits which preferred by some people of Indonesia. It is because banana has high nutrients content that good for human body. According to Joshi & Sarangi (2014) stated that Banana (*Musa Paradisiaca*) is approximately contains of 75% water and 25% carbohydrate along with trace amount of protein and fat”. Furthermore, Rahmawantie (2015) concluded that, “Banana is contained of Vitamin A, Vitamin B (thiamin, riboflavin, niacin, vitamin B6, and folic acid), vitamin C, calcium, magnesium, iron and zinc. On the other words, banana is one

of common plant that grows up in tropical and subtropical countries which have contain of high nutrition.

Banana is also easy to be found. In Indonesia, banana is easy to be planted in all condition of environment because the climate of Indonesia very supports the growth of banana plants. Then, Banana is also very delicious and the price of banana is relatively not expensive. According to Tangkilisan (2013) stated that, Banana is one of fruit that easy to be found in Indonesia. The taste is delicious and the price is not expensive. Furthermore, Joshi & Sarangi (2014) concluded that Banana (*Musa Paradisiaca*) is the plant of banana which very common in the tropical and subtropical countries. On the other words, the researcher concluded that Banana is easy to be found, because it can be plant in the tropical and subtropical countries. Banana also preffered by many people because it is very delicious and the price is not expensive.

2.3.2 The Benefits of Banana

Every fruits have own benefits. One of them is banana which has many benefits for human body. According to Szalay (2017) consuming the banana can give the health benefits for human body, there are:

a. Heart health

Bananas are good for our heart. They are packed with potassium, a mineral electrolyte that keeps electricity flowing throughout the body, which is required to keep our heart beating. Bananas have high potassium and low sodium content can also help to protect the cardiovascular system against high blood pressure.

b. Depression and mood

Bananas can help overcome depression. The high levels of tryptophan, which the body converts into serotonin and a brain neurotransmitter, can improve the mood. Then, the vitamin B in bananas can help for sleeping soundly and magnesium for helping relaxes our muscles.

c. Aid the digestion and weight loss

Bananas are high in fiber which can help our regular digestion. One of banana can provide 10% of daily fiber requirement. Vitamin B6 can also help to protect

them against of diabetes type-2 and aid in weight loss. In general, bananas are great to weight loss food because it has the sweet taste and filling that helps in suppressing of hunger. Moreover, bananas can also help the stabilized of blood sugar levels while exercising.

Furthermore, there are other benefits of bananas which are good for human body besides for aid heart health, overcome the depression and improve the mood, and aid the digestion and weight loss. The statement from Tanjung (2017) mentioned that the benefits of banana are:

a. Maintaining the eye of health

Bananas help maintain the eye of health. Bananas have a certain amount of vitamin A which is fat soluble that important for protecting the eyes and the compound to retain the membrane that surrounds the eye. Vitamin A can also reduce the risk of blindness and the essential for daily vision. Then, bananas also contain of alpha carotene and beta carotene which converted into vitamin A to maintain the better eye health.

b. Lowers the cancer risk

Vitamin C which found in banana fruit can counteract the formation of free radicals that cause of cancer. Besides of Vitamin C, bananas also contain of fiber that can prevent the colorectal cancer. Colorectal cancer is a cancer that develops from the cells of the large intestine.

c. Pregnancy

A pregnant mother needs good consumption for herself and the embryo. Folic acid can help to prevent the birth defects in children. Approximately 85 - 100 calories which contained in bananas are important for the formation of new cells in the fetus. Then, bananas can also reduce the morning sickness in pregnant women and keep blood sugar levels to be stable in pregnant women.

In short, banana has many benefits for human body. There are good to our heart, to help overcome the depression and improve the mood, to against of diabetes and aid in weight loss, to maintain the health eyes, to prevent the body from the colorectal cancer. Furthermore, banana is good to consumes by pregnant

women because it can reduce the morning sickness and keep blood sugar levels to be stable.

2.4 Corn

2.4.1 The Information about Corn

In Indonesia, corn is one of fruits that easy to be found. Commonly, people of Indonesia already familiar with the name of corn because it can be found at modern or traditional market. Then, the price is relatively not expensive which can be bought by many people of Indonesia. According to Arisah (2016) stated that Indonesia is an agrarian country with abundant natural resources. Especially in agriculture which is very diverse both in the form of plants, as well as mineral materials. Therefore, corn is easy to find out in some markets and the price is also not expensive. On the other words, Indonesia is agrarian country which rich in the form of plants and mineral materials. Therefore, corn is easy to find out and the price is not expensive.

Corn is also one of most important food crops. It is because corn has the same nutritions with wheat flour and rice. According to Adisarwanto & Widyastuti (2000) as cited Permatahati (2017) stated that Corn (*Zea mays* L.) is one of carbohydrates source that can be used as a substitute of rice, because corn has a similar calorie like rice". In Indonesia, corn is important in the pattern of community food menu after rice. Permatahati (2017) stated that Corn as a foodstuff can provide nutritions contents such as carbohydrates, fats, protein, some vitamins and minerals essential in large enough quantities compared with other grains". Furthermore, Haryanto (2004) concluded that Corn are contains of antioxidants and rich in beta-carotene as forming of vitamin A. Corn is also a source of essential fatty acids linoleic essential that needed for body growth, healthy skin and rich in fiber.

In addition, the researcher concluded that Indonesia is an agrarian country with abundant natural resources. Which makes the corn is easy to find in some markets and the price is not expensive. Corn is one of carbohydrates that can be substitution of rice because it has a similar calorie. Then, corn is also contained of antioxidants and rich in beta-carotene as of vitamin A.

2.4.2 The Benefits of Corn

Corn provides many health benefits for the human body because it has many nutritional qualities. There are some benefits of corn that mentioned by Caesarlita (2017); First is to improve the heart of health; the second is to improve the vision ability; the third is to increase the energy; the fourth is to reduce the constipation; the fifth is to againt the cancer cells in human body; the sixth is to helps for losing the weight; the last is to keep the intestinal bacteria for always healthy. The detail explanations can be described as follows:

a. Improve the heart of health

The content of antioxidants in corn can be increased when it is cooked and these antioxidants can keep our heart healthy.

b. Improve of vision ability

Corn contains of lutein which has the ability to strengthen the optic nerve and improve our eyesight.

c. Increased the energy

Corn is rich in carbohydrates content which can not gain of weight to body, but it can help to increase our energy level.

d. Reduced the constipation

Corn is rich in fiber that can help to defecate and improve the bowel movements to reduce the constipation.

e. Anticancer

Many studies show that corn contains of phytonutrients that have ability to against cancer-causing cells in the human body.

f. Helps to lose the weight

Corn is very low in calories and sucrose. It is a healthy snack for people who want to lose the weight.

g. Healthy for intestinal bacteria

Corn has the ability to increase the production of healthy bacteria in the intestine as a result it can help digestion to be healthy.

In addition, the researcher concluded that corn provided many benefits for human body because it had good nutrients. The nutrients in corn can protect and against a number of chronic diseases like to keep our heart healthy, to strengthen the optic nerve and improve our eyesight, to increase our energy, to reduce the constipation, to againts the cancer-causing cells in the human body, to help for losing weight and to help digestion to be healthy.

2.5 Food Diversification

There are some definitions of food diversification. Based on Presidential Decree no. 68 in 2002, about Food Security Article 9 verse (1) stated that diversification of food is organized to improve food security with attention to the local resources, institutions and cultures. The diversification is done by increasing the diversity of food, developing of process technology and food products, and increasing the public awareness to consume varieties of food with the principle of balanced nutrition. Furthermore, Elizabeth (2011) concluded that food diversification not only full aimed to reduce of rice consumption. But, it's also aimed to change and improve the consumption pattern of people to be more diverse types of food with better nutritional quality. On the other words, the researcher concluded that Food diversification is held to increase food security which is intended to change and improve the consumption pattern of the community to make more diverse types of food with better nutritional quality.