

CHAPTER II

LITERATURE REVIEW

2.1 Brownies

Brownies is a kind of pastry product that uses wheat flour, chocolate, eggs, sugar, and baking soda as the ingredients. Brownies is a quick bread, because, brownies is bread that is made by using baking powder and baking soda. According to Adham (2010), the advantage of quick bread is that their ability to be prepared quickly and reliably, without requiring the time-consuming skilled labor and the climate control needed for traditional yeast breads. The texture of the brownies doesn't expand like baking a cake generally.

According to Lowney's (1907), brownies are from United States, Chicago and the taste of brownies is very sweet, fluffy, and has a very soft texture. In Indonesia, Brownies is generally made by steaming and baking with the oven.



Figures 2.1 Brownies

There some nutrition contained in brownies. According to Fat Secret (2015), brownies contain 129 calories, 4.68gr fat, 21.26gr carbohydrate, and 1.62gr protein. The detail calories 32% fat, 64% carbohydrate, and 5% protein in brownies. In short, brownies contains of carbohydrate, protein and fat that needed in human body.

2.2 The Ingredients of Brownies in general

There are seven ingredients of brownies in general.

2.2.1 High Protein Flour

High Protein Flour is the main ingredient for making brownies. High Protein Flour contains carbohydrate and protein for healthy. According to Syarbini (2013), high protein flour is processed by wheat seed which is grinded. The function of high protein flour is to shape the brownies. The main high protein flour which is role in making brownies is gluten. Gluten is a composite of the proteins gliadin and glutenin. These exist, conjoined with starch, in the endosperms of some grass-related grains, notably wheat, rye, and barley. Gliadin and glutenin compose about 80% of the protein contained in wheat seed.



Figures 2.2 High Protein Flour

2.2.2 Sugar

Sugar is one of the ingredients for making brownies. According to Darwin (2013), sugar that uses for making brownies must dry texture. It will not make the dough clot. The function of sugar in making brownies is giving sweet taste in cake and sugar contains carbohydrate for human health.



Figures 2.3 Sugar

2.2.3 Salt

Salt is one of the ingredients for giving crunchiness in brownies. According to Patisserie (2012), the functions of salt in making brownies are giving the taste, and to increase gluten in brownies. In processed of foods, salt is most important to giving taste and crunchiness cake. Almost all, dishes use salt as a flavor enhancer and crunchiness. Salt also serves as a deterrent to the growth of bacteria in cooking so that salt is often used as a means of making food.



Figures 2.4 Salt

2.2.4 Fat

Fat is giving the delicious taste in brownies. The function of fat in making brownies is to make the brownies soft. According to Raga (2010), the function of fat in making brownies is to increase nutrients, and to give crunchiness in brownies, and to increase the aroma and to produce a good brownies.



Figures 2.5 Fat

2.2.5 Eggs

Egg is one of the materials that is very influential on the final result of bread and pastry batter. According to Yulianti (2004), the function of egg in making

brownies is to make the batter add nutritional value, strengthen the taste, help the product development process, soften and improve the crumb texture in the batter, and improve the batter. In the process of making brownies, the writer uses egg yolk, because egg yolk contains lecithin that serves as an emulsifier that makes the cake soft.



Figures 2.6 Egg

2.2.6 Baking Powder

Baking powder is the important component in making brownies. According to Tama (2014), the function of baking powder in making brownies is to make the batter rises and keep the brownies in good condition.



Figures 2.7 Baking Powder

2.2.7 Dark Chocolate

Dark Chocolate is the important component in making brownies. According to Harahap (2010) ,the function of dark chocolate is to increase the color in making brownies. Dark chocolate also can give the sweet taste to brownies besides sugar.



Figures 2.8 Dark Chocolate

2.3 Technique for Making Fruits Brownies

According to William (1973), process for making brownies divided into two phases, there are mixing process and baking process.

2.3.1 Mixing Process

Mixing Process is all material structure to be one and form the dough. The batter is made to form the structure of brownies. According to Pertiwi (2006), during the absorption of water by mixing high protein flour to form gluten which will form the structure of the brownies until dough forms a homogeneous.

2.3.2 Baking Process

Baking process is the most important factor in making brownies. The factor of baking can influence the quality of brownies. The temperature of brownies is about 170°-180°C (Widowati, 2003). The oven should not be too hot when the material is inserted because the outside will be precious. It can inhibit the development and brownies surface becomes soft and crunchy. According to Rosi (2010), raw materials used in the making of brownies may affect the final quality of brownies, besides the baking factors can also affect the quality of the resulting brownies.

2.4 Food Innovation

Innovation is an idea that resulted in the creation of new ones. The new innovation developed in making new food products with the aim of creating a snack product that will be targeted to become one of the typical souvenirs of the city of Palembang. Berkun (2013) defines innovation as a significant positive changes. Innovation experts generally split innovation into two high level categories: Disruptive and Incremental Innovation.

Disruptive Innovation a technology whose application significantly affects the way a market functions. An example of a modern disruptive innovation is the internet, which significantly altered the way companies did business and which negatively impacted companies that were unwilling to adopt it. A disruptive innovation is differentiated from a disruptive technology in that it focuses on the use of the technology rather than the technology itself. Incremental innovation can be visualized as new food product line extensions. Incremental innovation does little to challenge the status quo, and becomes the risk aversion of marketing groups which generally dislike disruptive innovation.

My research focuses on fruits brownies as functional foods and this allows the writer to interact with groups in other disciplines, such as chef, enterpreneurship, and housewife. the writer believe that this collaboration across departments will help lead to a greater understanding of the proposed health benefits of carotenoids. With this knowledge, the writer will be able to give better recommendations to the public and design better food innovation and food solutions.

2.5 Information about Avocado, Coconut, and Date Palm Fruits

2.5.1 The Nutrition of Avocado

Avocado has many vitamin and minerals that are needed for human body. Consuming avocado giving advantage for human body because, avocado contains antioxidant for human body. According to Regar (2015), avocado fruit from Central America, namely Mexico. Avocado contains of vitamin E, Vitamin C and flavonoids can be antidote to free radicals. Moreover, avocado also contains of

omega 3 fatty acids which give the advantage to keep health, decrease cholesterol, and food for brain. According to Yoantama (5 December 2016), avocado can prevent stroke, because it contains folate which can minimize the risk for stroke.

2.5.2 The Nutrition of Coconut

Coconut has many vitamins and minerals that are needed for healthy. Consuming coconut is good for health. According to Fat Secret (2017), one of coconut contains of 283 calories, 26.79gr fat, 266gr protein and 12.18gr carbohydrate. According to Ruzsulla (February 2014), the benefit coconut can help lower blood pressure because, coconut contain high potassium content and is believed to be able to regulate blood pressure. Coconut lose weight because, coconut meat is rich in natural fiber for the body. Consuming coconut fruit can also help people who is having defecating. The coconut can help lower blood pressure. The coconut contains high potassium content and is believed to be able to regulate the last, According to Munthae (February 2012), coconut contains many substances manganese, 60% of mineral needs daily. There are 11% of iron, 9% phosphorus, and 8% calcium.

2.5.3 The Nutrition of Date Palm

Date Palm contains vitamins and protein need for healthy. According to Fat Secret (2017), one of date palm contains of 23 calorie, 0.03gr calories, 0.2gr protein, and 6.23gr Carbohydrate. Date Palm also has many advantages for healthy and human body. According to Faiza (July 2013), date palm can prevent stroke because, date palm contains high potassium to accelerate the pulse of the heart in the human body. Date palm contain are salicylates are known as raw materials aspirin, painkillers and fever, and can affect the prostate gland. In every 100 grams of date palm contain 90 IU vitamin A, thiamine 93 mg, 114 mg riboflavin, niacin 2 mg and 667 mg potassium. The nutrients that help release energy, keeping the skin and nerves to stay healthy and important for heart function.

2.6 Product Development

Development is the educational efforts of both formal and non-formal conscious, purposeful, organized and responsible in order to introduce, cultivate, guide, development a base and to create a new product to be introduced to the public. According to Seals & Richey (1994) development is a systematic assessment against the designer, development, and evaluation of a program, process, and learning products that must meet the validation criteria, practicality, and effectiveness. It can be concluded the development of a product that is made based on the interests of society as well as practical and has a value of high effectiveness for the needs of the community.

The development is very difficult but, it can be very easy if we carry out everyday and everytime. Product development is a product that already existed, and recreated with better results to public. According to Amstrong (1997), the new product is the original product, the results of product development, product modifications, and new brand that developed the company through its own research and development efforts." The products that will be developed by the writer, is the development of products based on the notion of the writer alone without any opinion from any others. Products created based on the ideas of thought by the writer. It can also be based on the views of consumers about the product, new to them or not. Whereas, the purpose of the new product is original product, new brands developed by the research and development part of the writer own. The product development process based on the stage, field data or survey, in which describes the results obtaining from interviews and documentation.

2.7 Food Diversification

Food diversification means step by step introducing new food and texture in you consumers thus moving on from an exclusively brownies fruits to a more varied food. Start first by introducing brownies in general consumers before moving on to fruit brownies. The gradually you consumers will accept food of a more solid taste and texture.

According to Riyadhi (2003), diversification is an election process food that is only dependent on one type of food , but has a variety of options (alternate) to a variety of foodstuffs. While, Soetrisno (1998) defines a narrower diversification (in the context of food consumption) is an effort to diversify the type of food consumed, includes food sources of energy and nutrients. Thus meeting the needs of food and nutrition in accordance with good sufficiency in terms of quantity and quality.

2.8 Recipe Book

According to Marwanti (2000), recipe book is a set instruction to load name of the recipe, matter, flavor, and how to make something to eat and how to serve certain cooking. Recipe book is very important for beginner how to cook. According to Jerry's (2009) recipe book is an important helping tools to cook, contains information about making food. She also says that recipe has its standard. The standard of recipe book is that have been evaluated, tasted, and regulated for the spesific operations of a food organization and require substantial time and expense for recipe book before a standard recipe book is produced. The standard of recipe book can be develop with recipe modification or multiply total material to neccessary how to cook. The data explanations above the writer concludes that the definition of recipe book is contains how to good cook and how to good serve, and it provides the information and the instructions about various food especially cake as a guideline for cooking.

2.9 Brochure

Brochure is one of the best ways to present you project. There are many brochure used to advertise a new product or service that you project offers. According to Saputra (2013) brochure is a promotional tool made of paper in which there is some informations and offers about products or services. The purpose of brochure is to inform about products to a target consumers. According to Cutlip and Broom in this book "Effective Public Relations" (1994), brochure is a brief publication in some consist information about organization, new product or

company to knowing in this common people. From the data explanations about the writer concludes that the definition of brochure is a small book contains texts and picture, and it provides the information about organization and new product as a media promotion.

According to Desamba (2013), there are 4 types of brochure based on the appearance. (1) Bi-fold brochure Letter or A4 size, (2) Bi-fold brochure A3 size, (3) Tri-fold brochure A3 size, (4) Brochure with flap and inserts, and (5) A3 Size Brochure. For the brochure of avocado, coconut, and date palm brownies the writer choose the A3 Size Brochure Type. Because, the writer want to make the sample brochure for the product.

2.10 Packaging

There are many kinds of definition of packaging. According to Kotler and Amstrong (2012) packaging is the involves designing and producing to the container of wrapper for a product. According to Swatha (1980:P.139) packaging is the general activitiy and product planning to involve design pack construction or packaging product.

Purpose and function make a design packaging according to Wijayanti (2012) there are five explanation to design packaging.

1. To beautify packaging product in category appropriate product.
2. To give safety product.
3. To give safety product at product distribution.
4. To give information to consumers about new packaging product.
5. To constitute as a result design new product.

In conclusion, packaging is a small box contains texts and pictures, to put something new product, especially cake and etc.