

CHAPTER I

INTRODUCTION

1.1 Background of The Research

Brownies are soft and dense textured cakes, blackish brown and have a distinctive brown taste (Suhardjito, 2006). Brownies are processed cakes made from wheat flour. Wheat flour is flour or powder derived from wheat seeds. According to BPS (2011) so far Indonesia is the fourth largest wheat importing country in the world with import volume reaching 10 million tons in 2010. If this situation is allowed, dependence on food from abroad can increase the country's foreign exchange expenditure. In addition, it causes some flour-based food industries to experience dependence on wheat flour. Therefore there is a need to reduce the dependence on the use of wheat flour by diverting the use of flour to non-flour (Fatkurahman, 2017).

Food diversification efforts can be done by replacing or modifying foods made from wheat flour with local food in Indonesia. Processed food products which can be used as alternative food are brownies (Haryanto, 2009). One of them is in making steamed brownies with mung bean flour. The availability of mung beans is very abundant in Indonesia. Mung beans rank third in legumes after soybeans and peanuts (Susilowati, 2007). The processing of mung beans into various food products is still very limited and monotonous. In people's suggestions when listening to the word mung beans, it is only thought of as a mixture of the contents of bread and mung bean porridge. The processing of mung beans into brownies is still very limited (Maryam, 2015; Astawan, 2009)

Indonesian people only know brownies made from wheat flour with a mixture of chocolate and cheese. Processed brownies from beans are still very rare, so researchers want to make a new product to change people's view of mung beans, in making mung bean brownies using honey as a substitute for sugar. The sweetness of honey actually exceeds the sweetness of sugar because the sweetness level can reach 1½ times the taste of sugar. However,

even though the sweetness of honey is natural and does not have a bad effect as it is contained in sugar, because the content of its main compounds is carbohydrate (79.8%), and water (17%) (Maryana, 2013).

Based on the List of Food Composition (DKBM) issued by the Indonesian Nutritionist Association (Persagi) mung beans have a high protein content of 22% and are a source of important minerals, including potassium and phosphorus. While the fat content is unsaturated fatty acids. Mung bean fat is composed of 73% saturated fatty acids and 27% unsaturated fatty acids. Intake of high unsaturated fats is important to maintain heart health. In addition, mung beans have a low glycemic index of around 28.87. The glycemic index value is categorized as low if <55 moderate categories $55-70$, and high category > 70 (Powel, 2012), besides mung beans also be a source fiber content of 4.1 g each 100 g of mung beans (DEPKES, 2010). In BPOM 2016 food is said to be a source of fiber if 3 g each 100 g (in solid form) or 1.5 g each 100 kcal (in liquid form) and said to be high in fiber if 6 g each 100 g (in solid form) or 3 g each 100 kcal (in liquid form). While the fiber content found in brownies circulating in the market is around 1.3 gr/100 gr brownies (Martin, 2010). From that, the author wants to make a high-fiber brownies by use mung bean flour with honey so that the nutritional value of brownies is better.

By looking at the above problems and rarely encountered in the market brownies that have adequate fiber content, and still a little from processed mung beans that are used as eating brownies the authors feel the need for a product of brownies that can be used as a source of fiber by replacing the main ingredient of brownies namely flour with mung bean flour so that the nutrients produced are better. Of all the previous studies that have been conducted there is no element of Islamization of knowledge that connects with the verses of Al-qu'ran and hadith. Therefore in this study the authors included verses of Al-quran and hadith related to the research conducted.

1.2 Statement of The Problem

1. What are the result of nutritional analysis of mung bean brownies as a fiber source food ?
2. How is the quality of acceptance of mung bean brownies include texture, colour, aroma, and taste ?
3. How is the hedonic quality of mung bean brownies including texture, colour, aroma, and taste ?

1.3 Objective of The Reseach

1.3.1 General Purpose

Analyzing the nutrient content, acceptability and hedonic quality of mung bean brownies as food of fiber source

1.3.2 Special Purpose

1. Analyzing the nutrient content of mung bean brownies as food of fiber source and wheat flour brownies
2. Analyzing the difference in acceptance of mung bean brownies as food of fiber source and wheat flour brownies
3. Analyzing the difference hedonic quality of mung bean brownies as food of fiber source and wheat flour brownies

1.4 Benefit of The Research

1.4.1 Theoretical Benefit

In general, this research can be used as a reference for further research that mung bean flour can be used as the main ingredient in making brownies.

1.4.2 Practical Benefit

1. For the Community Add knowledge and information to the public about the diversity of food through processing mung bean brownies as food of fiber source.
2. Researchers can gain insight, knowledge and direct experience on how to make mung bean brownies as food of fiber source.

1.5 Previous Research

Several previous studies that have been conducted relating to the manufacture of mung bean brownies as food of fiber source can be seen in the table below :

Table 1. *Previous Research*

Reserached	Research Varia able	Research Result	Research Differences
Setyowati, 2017 Modified Brownies Recipe for Intermediate Foods for Diabetes Mellitus sufferers	Dependent variable: Diabetes Mellitus Snack Independent variable: Modified Brownies recipe Method: Pseudo experiment, variable studied brownie recipe modification Data analysis was carried out descriptively and analytically.	There were 3 modified brownies namely red bean brownies, mung bean brownies, and peanut brownies. The physical properties of the 3 modified brownies are all dark brown, taste slightly sweet, flavored with typical nut flour and soft texture. Based on organoleptic properties, peanut brownies are most preferred. Based on the chemical analysis of macro nutrients and fiber, brownies that meet the dietary requirements of people with diabetes mellitus are peanut brownies. Peanut brownies are also accepted by people with diabetes	The independent variable used is mung bean brownies with honey

<p>Irviani A, 2017. Analysis of nutrient content of brownies for substitution of carrots (daucus carota L.) as an alternative to improving nutrition for the community</p>	<p>Dependent variable: Ind Independent variable: analysis of nutrient content Method: Research True Experimental Posttest Only Control Group Design.</p>	<p>The statistical test results showed a significant effect between the ratio of 1: 0 (100g tempe), 3: 1 (75g tempe, 25g carrot), 1: 1 (50g tempe, 50g carrot) and 1: 3 (25g tempe, 75g carrot).</p>	<p>The dependent variable used was the received power analysis and the proximate test</p>
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