

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

According to de Ridder et al (2017), people's irregular eating patterns with unbalanced nutritional intake and unhealthy lifestyles cause various cases of degenerative diseases such as obesity, diabetes, coronary heart disease and hypertension. This is the background for researchers in the food sector to research and develop and design a food product that is beneficial to health (Muhammad and Dewettick, 2017). One of the food components that can play a role in health is dietary fiber which is a bioactive component that has physiological functions such as anti-cholesterol and is useful for maintaining normal blood sugar (Dai et al., 2017; Maphosa). & Jideani, 2016; Brownlee et al., 2017).

In Indonesia, many people like to snack on brownies, but brownies have high sugar and gluten content. This is evidenced by the many studies and journals about brownies. Therefore, we present a new innovation by modifying brownies using barley flour as the main ingredient. I chose barley flour because when compared to wheat, barley has a higher phosphorus and iron content, twice the fat content, protein, B-complex vitamins and equivalent energy (USDA, 2017). On the other hand, barley has many nutritional benefits and is good for health as follows according to alodokter.com:

- Maintain weight. As a high-fiber food, barley will keep you feeling full longer. When consumed regularly, barley can help you maintain an ideal body weight.
- Smooth the digestive tract. The fiber content in barley also has prebiotic properties. This means that barley can support the growth of good bacteria in the gut.
- Lowers cholesterol levels in the body.
- Reduces the risk of heart disease. Its high potassium content can lower blood pressure.
- Prevent diabetes. Barley is also rich in magnesium and antioxidants. The combination of these nutrients and substances makes barley useful in lowering blood sugar levels and optimizing the performance of the hormone insulin.
- Prevents gallstone disease. The fiber content in barley is also beneficial for preventing the formation of gallstones. A study even shows that the risk of developing gallstones can be reduced by up to 10% every time you eat barley

1.2 THE OBJECTIVES OF STUDY

- a) Identify ways to recycle barley into barley flour
- b) Identifying how to sell and market the product as well as the legal aspects that need to be obtained.
- c) Recognize how to pack Browley so that it is safe, hygienic and healthy.
- d) Exploring the potential of the brownley market in Indonesia.
- e) Determine a suitable product concept to be developed.

1.3 THE BENEFITS OF STUDY

- a) Develop ideas and creativity.
- b) get to know new products that are healthy and have many benefits.
- c) get to know more about barley and its benefits.