

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Crackers are one of the most popular snacks in Indonesia. Not only are they popular with older people, but also liked by kids. There are a lot of types and kinds of crackers, from prawn crackers, rice crackers, skin crackers and many others. The concern is although they are a very delicious and light snacks, the oil, fat and calories are very high, making them not recommended to eat in large amount. These days, people awareness of the importance of consuming healthy and highly nutritious food is increasing. Many people are starting to look for alternative snacks that are high in nutrients such as protein and mineral. Light snacks that provide health benefits and are also high in mineral and protein are a challenge that must be overcome by the food industry. Therefore, innovation is needed in making more nutritious and healthier snacks.

Mung bean flour (*Vigna radiate L.*) is considered as “green pearl” is one of the family of bean that is high in protein (25-28%), fiber, vitamins, minerals, and also low in fat (1-2%). (Khaket, Dhanda, Jodha, & Singh, 2015). Mung bean is known as a nutritious food source that can help maintain digestive health, control blood sugar levels, and provide more stable energy for human body. Not only that, mung bean also has hypoglycemic, anti-melanogenesis, immunomodulatory and hepatoprotective properties, which is beyond meeting fundamental body nutrient requirements (Liyanage *et al.*, 2017; Chai *et al.*, 2019; Gupta, Srivastava, & Bhagyawant, 2018).

Not only that, Snakehead fish (*Channa Striata*) is also one of the fresh water fish that is packed up with a lot of nutrition and high in protein, such as Albumin that is good for healing process and regeneration of body cells. The fish can be easily found in various open waters in Indonesia, mainly in the island of Java, Sumatra, Kalimantan, Sulawesi, Bali, Lombok, Singkep,

Flores, Ambon and Maluku under a various local names Snakehead fish also contains essential fatty acids and various other nutrients that are beneficial for health. By combining snakehead fish and mung bean flour in to a product, a snack can be created that is not only crunchy and delicious, but also has better nutritional benefits. This combination produces crackers that are rich in protein, fiber, and various other important nutrients that support overall health for human body.

Crackers based on mung bean flour and snakehead fish are expected to be an innovation in healthy snacks and can meet the nutritional needs of the people who crave for nutritional snacks. This product also has the potential to be a better snack alternative for those looking for foods high in protein and fiber without sacrificing delicious taste.

1.2 Objectives of the Study

The objectives of this study are following below:

1. Analyzing the innovation potential of mung bean flour and snakehead fish crackers and as a high nutritional snack.
2. Determining the nutritional facts, food safety and packaging, as well as the financial aspects of the mung bean flour and snake head fish crackers innovation.