CHAPTER I
INTRODUCTION

1.1 Background of the Study

Currently, there are still many people who do not know about durian flowers, from foreign to domestic communities. Durian fruit has a pungent odor and not all people like the smell. Unlike durian fruit, durian flowers do not have a smell like the fruit, the smell of durian flowers is almost the same like vegetables in general. Durian flowers are often became a food waste because many people do not know that durian flowers can be processed into various kinds of delicious and nutritious foods. Durian flowers contain various nutrients that are beneficial for health, including antioxidants, fiber, and various vitamins and minerals. Durian flowers also contain compounds that can help boost the immune system, overcome digestive problems, and maintain heart health (Sakinah 2017). Durian flowers in 100 g contains 13.3 g protein, 0.52 g fat, 21 mg vitamin C, 28,4 mg fiber, and 348 mg water (Wulandari, 2014).

The nutritional content of durian flowers can repair damaged cells due to wounds and as an antiseptic and antibiotic to cure existing infections. The fiber in durian flowers will smooth your digestion so that it will prevent and treat constipation and difficulty defecating. Durian flowers can help the metabolism process faster and burn fat more effectively and quickly. The nutritional content in durian flowers can help strengthen the immune system, increase resistance to disease. The anti-inflammatory properties of durian flowers can help reduce inflammation in the body. Durian flowers can also help lower cholesterol levels and maintain heart health. (Marselius Jeki, 2024).

Floss is a form of dry processed food that is widely known to the public because it is quite affordable and delicious (Fachruddin, 1997). Floss is a typical Indonesian dry food made from shredded meat fibers, seasoned, and fried until dry, with a savory and sweet taste. This floss is usually consumed by people as a side dish or as a snack. In general, floss processing uses various

types of meat such as chicken, beef, and fish. Floss is still very popular among people from various circles, from children to adults, as a daily food supply.

The country generates approximately 22,000 metric tons of durian flower waste annually, much of which is either disposed of in landfills or left to decompose along roadsides, reflecting inadequate waste management practices (Phoung, 2012). Similarly, the improper disposal of durian husks—through open burning or landfilling—exacerbates the issue of agricultural waste and poses significant environmental Innovation in utilizing food waste such as durian flowers is not onlysupports the invironment,but also has the potential to create more varied and nutritious food products for consumers from children to adults.

Durian flowers (Durio zibethinus) have a notably short harvesting period, often lasting less than a week (Rosmaina et al., 2016). These flowers typically bloom in the evening and are collected shortly after they naturally fall to the ground, usually during the early hours of the morning. Nutritionally, durian flowers are a source of vitamin C and antioxidants, which are known to support the immune system and combat oxidative stress. They also contain trace amounts of iron (Rosmaina et al., 2016).

As part of efforts to innovate durian flower floss production, long-jawed mackerel has been incorporated as a supplementary source of animal-based protein. The long-jawed mackerel (Rastrelliger kanagurta), a member of the Scombridae family, is commonly distributed throughout the Indian Ocean, the western Pacific Ocean, and adjacent marine areas (Fadhli et al., 2020).

According to data from the USDA (2024), a 100-gram (3.5-ounce) serving of raw mackerel contains approximately 205 kilocalories, 13.9 grams of fat, 90 milligrams of sodium, and 19 grams of protein, while it contains no carbohydrates, dietary fiber, or sugars. Scientific studies have indicated that polyunsaturated fats—particularly omega-3 fatty acids such as DHA and EPA—may significantly reduce both the incidence and mortality rates associated with cardiovascular diseases (Fadhli et al., 2020).

1.2 Objective of the Study

The objective of this study are following below:

1. Introducing the possibility of using neglected durian flowers, which come from the food waste category. that opening up culinary potential and reducing food waste in the community environment.
2. Determining nutritional facts, food safety and financial aspects of durian flower floss innovation.