

CHAPTER 1

INTRODUCTION

1.1 Background of study

“Pasta” is an Italian word for “dough”. The Italian style extruded foods namely spaghetti and lasagna are generally termed as pasta. It is a primeval food which is defined as a type of dough extruded or stamped into many shapes for cooking. The world pasta production amounts to approximately 14 million tons in 2014. Traditionally, Italy is the main producer and leader of the pasta consumption in the world. Pasta is far and widely consumed in the globe for the reason that of its convenience, palatability, and the longer shelf life than other bakery products, such as breads and buns (Nilusha, Jayasinghe 2019).

In the traditional Italian style, pasta is often made using semolina from hard wheat and water, resulting in a simple food with minimal ingredients. When made in a kitchen or restaurant and served shortly after cooking, pasta retains its simplicity. However, the art of pasta making can extend beyond the kitchen and involve highly sophisticated industrial techniques. These techniques are used to produce a wide range of pasta shapes and sizes, as well as a stable, dry product that has a long shelf life. While there is a growing market for fresh pasta, which is pasta that has not been dried, the majority of the pasta market is dominated by dry pasta. Dry pasta offers convenience, quality, and affordability for both retailers and consumers. It is the largest sector in the pasta market due to these advantages (Ron kill, 2021).

Ravioli is one of a popular type of pasta that is enjoyed in various pasta dishes. It is made by combining basic ingredients such as eggs, flour, oil, and water to create a dough. The dough is then rolled out and filled with a desired filling, which can range from cheese and meat to vegetables and seafood. The filled dough is sealed and cut into individual pieces, creating the characteristic

ravioli shape. Ravioli pasta is appreciated for its delicious taste, unique texture, and relatively simple preparation method. The filling adds flavor and variety to the dish, making it appealing to a wide range of tastes. Many people find making ravioli at home to be an enjoyable and rewarding culinary experience. With the right ingredients and techniques, anyone interested in making ravioli can give it a try in their own kitchen. There are numerous recipes and variations available to suit different preferences and dietary restrictions (Duncan Siloam Susanto,2022).

Cocoa powder is one of the most popular additives in bakery industry due to its unique flavour and properties. Because the demand for cocoa is ever growing, it is very likely the production will not be able to keep up. This would lead to the rise of prices of cocoa. Finding a substitute for cocoa is becoming very important. Carob powder produced from seedless pods is suggested as a cocoa alternative. Considering carob as a source of many health beneficial compounds, while cocoa has some limitation in consumption due to the caffeine and theobromine content we decided to investigate how substituting cocoa powder with carob powder affects the sensory perception and color in prepared bakery products (Kidoń, Siger, 2018).

Both cocoa beans and carob pods contain a range of phytochemicals, which are bioactive compounds naturally present in plants. These phytochemicals include polyphenols, proteins, amino acids, fatty acids, carbohydrates, and fiber. These components contribute to the nutritional and health benefits associated with carob and cocoa (Pinakoulaki E, 2018) Carob also contains proteins and amino acids, which are essential for building and repairing tissues in the body. Additionally, carob is a good source of dietary fiber, which aids in digestion and helps maintain a healthy digestive system (Loullis,2018).

Carob powder is naturally sweetened and require less industrialized sugar addition in the products in which it is added. It is similar to chocolate in appearance being obtained through the roasting and grinding of pods and

predominantly contains sugar and fibers, having insignificant lipid content It does not have stimulating compounds and the cocoa's characteristic bitterness.

Moreover, it has good solubility (Morais, A. C. S and Rodrigues, M. C. P, 2018). Carob powder is a ingredient with a considerable nutritional value due to its high dietary fiber and phenol compounds. The soluble fibers are thought to exert a preventative role against heart disease and lowering serum cholesterol while the polyphenols have antioxidant activity and are involved in protection against several diseases as cardiovascular and neuronal. Thus, Carob powder is an ingredient that can be used in functional and healthy foods (Wang et al., 2018; Owen et al., 2018; Youssef et al., 2019). The growing consumer demand for foods of higher nutritional and sensory quality has encouraged research on new ingredients to be used in bakery products (Pawłowska,2018)

Indonesia is one of the country's largest Coconut producer and exporter in the world market. The management efforts of Indonesia coconut not optimal, coconut export is still largely in the form of primary products, a type of derivative products coconut produced Indonesia is still limited. (heriyanto, 2019).

1.2 The objectives of the study

The objectives of this study are following below:

1. To offers new and exciting culinary experiences so that people can taste a fresh new product on traditional flavours
2. To utilize carob powder as good chocolate substitute that is healthier.
3. To replace the use of chocolate due to high demand in chocolate usage that the production can't keep up.
4. To introduce new variants of snacks that can be enjoyed by all people.
5. To analyze the nutrient content of carob.

