

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Hummus is traditionally made from chickpeas due to their nutritional profile, creamy texture, and mild flavor, which contribute to the popularity of chickpea-based hummus worldwide. Chickpeas are rich in protein, dietary fiber, vitamins, and minerals, making them a nutritious base for this versatile dip. However, the relatively high cost and limited availability of chickpeas in some regions have prompted researchers to explore alternative ingredients that can replicate the sensory and nutritional qualities of chickpea hummus. One such alternative is jackfruit seeds, which are often discarded as waste but possess a promising nutritional composition, including high carbohydrate content and lowfat levels. Studies, such as those published in the *Journal of Food Science and Technology* by Dr. N. Bhaskar (2015), have demonstrated that jackfruit seeds can be processed into a smooth, palatable hummus with comparable texture and taste to traditional chickpea hummus. Utilizing jackfruit seeds not only offers a cost-effective substitute but also promotes sustainable food practices by reducing agricultural waste, making it a viable alternative for hummus production.

The increasing demand for affordable and nutritious food products has led to the exploration of alternative ingredients that can replace traditional ones without compromising quality. Chickpea hummus is a popular food item known for its rich nutritional profile, particularly its high protein and fiber content. However, chickpeas can be relatively expensive, which limits the accessibility of hummus for some consumers. In this context, jackfruit seeds have gained attention as a potential substitute due to their lower cost and availability as a by-product of jackfruit consumption. Utilizing jackfruit seeds for hummus production not only reduces the cost but also adds value to what is often considered agricultural waste, promoting sustainability in food processing.

Nutritionally, jackfruit seeds offer several benefits that make them suitable as a chickpea alternative. They are rich in carbohydrates and contain a low amount of fat, which aligns with dietary recommendations for healthy eating and weight management. According to research by Priya et al. (2021), jackfruit seeds contain essential nutrients such as proteins, dietary fiber, and micronutrients that contribute to overall health. The high carbohydrate and low-fat content of jackfruit seeds make them particularly beneficial for individuals seeking to manage obesity or maintain a balanced diet. Moreover, jackfruit seed hummus has been shown to have a comparable texture and taste to traditional chickpea hummus, making it an acceptable alternative for consumers.

Several studies support the feasibility of using jackfruit seeds as a substitute for chickpeas in hummus production. For instance, research published in the *Journal of Food Science and Technology* by Dr. N. Bhaskar (2015) highlights that boiled and processed jackfruit seeds can be transformed into a smooth, palatable hummus with favorable sensory attributes. This research emphasizes that jackfruit seed hummus not only meets nutritional requirements but also offers a cost-effective solution for producing hummus. By incorporating jackfruit seeds, manufacturers can reduce production costs while maintaining product quality, thereby making hummus more accessible to a broader population.

In summary, the utilization of jackfruit seed hummus as a substitute for chickpea hummus presents a promising opportunity to address both economic and nutritional challenges. The lower cost of jackfruit seeds, combined with their favorable nutritional profile, supports their use as an alternative ingredient. Supported by scientific studies, jackfruit seed hummus can provide a sustainable, affordable, and nutritious option that benefits consumers and producers alike.

1.2 Objectives of the Study

The Objectives of this study are following below:

1. To evaluate the nutritional composition of jackfruit seed hummus in comparison to traditional chickpea hummus.
2. To assess the sensory characteristics (including taste, texture, aroma, and appearance) of jackfruit seed hummus through sensory evaluation methods.