

CHAPTER I

INTRODUCTION

1.1 Background of the Study

In recent years, consumer interest in plant-based, nutrient-dense foods has surged due to growing health awareness, dietary shifts, and demand for sustainable eating options. Among these, nut-based products such as peanut butter and almond butter are highly favored for their nutritional profile, including high-quality protein, monounsaturated fats, fiber, and micronutrients like vitamin E, magnesium, and folate (USDA, 2020). However, conventional nut butters present practical limitations, such as their sticky texture, messiness, and lack of portability, making them less suitable for quick consumption or travel.

To address these challenges, this study introduces an innovative sliced spread made primarily from peanuts and almonds. By transforming traditional creamy spreads into firm, sliceable portions, this product offers convenience and practicality while maintaining the nutritional benefits of nuts. This concept allows for easy application in school lunches, meal prepping, or as a ready-to-eat high-protein snack. Peanuts and almonds are particularly chosen not only for their protein content—about 25g per 100g and 21g per 100g respectively—but also for their affordability, availability, and positive health effects, including heart health and satiety (*Ros, 2022; O'Neil et al., 2015*).

The production process will involve techniques such as cold-pressing, low-heat drying, and the use of natural binding agents to ensure the product maintains a solid, sliceable form. A significant advantage of this method is the preservation of heat-sensitive nutrients such as vitamin E and certain polyphenols. Furthermore, according to Ali et al. (2016), almonds contain prebiotic compounds that support digestive health, while peanuts contribute to blood sugar control and muscle repair due to their arginine content.

This research supports the movement toward convenient, plant-based foods that align with the nutritional needs of active lifestyles, children's meals,

and health-conscious consumers, while offering a unique textural innovation in the nut spread category. Additionally, the product is designed for easy consumption, making it a practical choice for busy individuals and families.

1.2 Objectives of the Study

The objectives of this study are as follows:

1. To evaluate the sensory quality and consumer acceptability of the innovative sliced spread through panel testing focused on appearance, flavor, aroma, and texture.
2. To analyze the nutritional content, packaging, and market trends of peanuts and almonds as the basis for developing a high-protein, practical sliced spread.