

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Protein and healthy fat contribute significantly in proper development and natural weight gain in children. In this case, animal protein is one of the contributors to muscle, tissue, and enzyme development, while healthy fats acts as a source of energy and required for brain development (van Vliet et al., 2015; Tan & Norhaizan, 2019). Unlike food that mostly consist of carbohydrates, protein-rich foods are more effective at promoting steady growth and maintenance (Arentson-Lantz et al., 2015). It also strengthens the immune system and speeds up recovery during illness (Özkaya & Şişman, 2021). Meanwhile, fat-rich meat is suspected to be more effective in reducing fat intake due to its higher satiety effect (Spinelli et al., 2020).

However, the presence of these nutrients does not guarantee its accessibility and adequate intake. In fact, high-quality protein sources, like beef, can be costly (Sharif et al., 2021). Even more, geographic limitation or supply chain issues in certain regions further limit the access to fresh and quality food items. These factors can also affect the prevalence of undernourishment (Khan et al., 2021). Subsequently, lifestyles also cause parents to have limited time for preparing healthy foods in their daily life. Therefore, the majority of them end up turning to fast foods, which usually devoid basic nutrients (Ngozika & Ifeanyi, 2018).

As a result, there remains a significant gap in the availability of nutritious and convenient ready-to-serve foods. According to Paulo et al. (2024), fewer than 30% of children aged 6-13 months globally receive meals that align with the minimum standard for dietary diversity and feeding standards. Moreover, the majority of commercially available food contains high levels of sugar, salt, and preservative content (Awuchi et al., 2020). However, these compositions do not constitute balanced nutritional diets that children require (Ling et al., 2015). Thus, it highlights the needs for innovative food products that provide

necessary nutrients for healthy growth, and also offer practicality for busy families, and convenience for children.

To address this problem, the development of Soft Beef Sweet Soy Sauce as a ready-to-serve meal offers an innovative solution. This product is made to provide high-quality animal protein, as well as healthy fats. It is designed to be practical for modern families. Especially, for busy parents who look for healthy and nutritious meals for their children with minimal preparation time.

The making of this product uses food dehydration technology to extend shelf life without compromising the nutritional content or flavor. By removing moisture under controlled temperature, the product maintains its tender texture, nutrients, and flavor without artificial preservatives.

Aside from the nutritional value, the Soft Beef Sweet Soy Sauce has major benefits. Among them are processed from quality beef and natural materials, soft and child-friendly, convenient to store and prepare, and long-lasting because of its dehydration. In general, this product bridges the gap between nutrition and convenience, and it provides a friendly solution to nutritional problems.

1.2 Objectives of the Study

The objectives of this study are following below:

1. To develop a ready-to-serve Soft Beef Sweet Soy Sauce meal that is nutritious, convenient for children, and easy to prepare.
2. To optimize the drying process using a dehydrator to ensure moisture removal while preserving texture, flavor, and nutrients in making ready-to-serve product.