

Chapter 1: Introduction

1.1 Background

A study conducted by Tetra Pak has shown that Indonesian customers' health awareness has been increasing. Based on the survey, 86% of Indonesian consumers consider a healthy lifestyle is essential. According to the study, consumers' request from industry to produce healthier food options was also increased (Mariska, 2019). Health awareness has been significantly increased and thus, the demand for functional foods that can provide nutrition is increasing. Cereal-based food was known to provide benefits such as probiotics, prebiotics, and fibers in the human diet (Das, Utpal, & Chakraborty, 2011).

Breakfast consumption is associated with a more desirably nutrient intake in adults, adolescents, and children (Galvin, 2003). According to an online survey conducted by Phan in 2016, most people ate one or two items during breakfast, mainly consisting of breakfast cereals, baked products, dairy and egg products with coffee as the main drink (Phan, 2016). These aforementioned items are convenient to consume during breakfast due to easy and fast preparation, increasing motivation to eat breakfast. These findings align with how breakfast consumption is driven by convenience, habits, price, need, and hunger (Phan, 2016).

Powdered Cereal Beverages (PCB) are quick and easy to prepare, inexpensive, and can be a great item to be included in breakfast. Similar to ready-to-eat breakfast cereal (RTEBC), PCB are packed with nutrients to improve micronutrient intake. Increased breakfast cereal consumption has been associated with increased fiber intake, reduced intake of fat, and increased intake of carbohydrates (Galvin, 2003). Health benefits associated with increased breakfast cereal products include lower serum cholesterol in adults and children, increased intake of micronutrients in populations where inadequate intakes of several micronutrients were prevalent (Galvin, 2003). Nutrient profiling on PCB can collect essential information on how much these products fulfil recommended daily nutritional

intake, express nutrients cost efficacy of the product, and proposed health claims compared to its ingredients.

Nutrient profiling can be defined as the science of ranking foods based on their nutrient composition. Foods assigned to categories based on their nutrient content have many potential applications. Nutrient profiling can be applied in dietary guidance, consumer education, nutrition labelling, and regulation of health claims. Helping consumers to choose healthier foods is possible using nutrient profiling (Drewnoski, 2008). Powdered cereal beverages (PCB) are highly available in the Indonesian market nowadays. However, nutritional profiling of PCB is still limited in Indonesia. Therefore, this study will help customers choose their most suitable PCB based on the nutrition profile. Some guidelines use the concept of nutrient density to promote healthier food choices. According to Miller (2009), consumers can choose nutrient-dense foods and beverages over less healthy food products by having the knowledge regarding the nutrient content and density. This can be applied to breakfast cereals which are often known for their health benefits based on their corresponding nutrients like fibers, proteins, vitamins, and even lower calories.

1.2 Problem Formulation

Based on the background, the problems can be formulated as:

- What are the differences and similarities between PCB and similar product based on nutrient profiling?
- Which product is the most cost-efficient and informative?

1.3 Aim and Objective

The aim of this study was to conduct nutrient profiling on several PCB products that are available in Indonesia. To be able to conduct nutrient profiling the objective of this study were:

- To observe and analyze nutrient profiles of PCB products.
- To analyze PCB product in terms of nutrient density and price per nutrition.

1.4 Benefits of the Study

This study will add the body of knowledge in nutrient labeling and profiling in Indonesia, particularly for powdered cereal beverages (PCB). The results of the study is expected to encourage PCB manufacturer to produce products with better nutrition content at an affordable price.