

CHAPTER I

INTRODUCTION

A. BACKGROUND

As a representative food from Korea, kimchi was selected as the world's top ten health food by Times (Times, 2013) and registered as “*Kimjang* Culture” as a UNESCO Intangible Cultural Heritage of Humanity in December. (UNESCO, 2013). “*Kimjang*” means making a lot of kimchi together at once. The reason for the listing was to practice sharing among neighbors from generation to generation, and to build a sense of community solidarity and to increase personal identity and sense of belonging. In the world, invisible values are considered important, and to inherit and preserve them, they are designated and protected as intangible cultural heritage. The same is true of *kimjang* culture. Of course, a little different from other heritages, it is characterized by the fact that the whole people have passed on and the whole country has inherited the kimchi culture. In addition, it is also noteworthy that the culture has been passed down, with each household showing a slightly different shape (type of salted fish, use of ingredients, etc.). Not only that, as far as the world is concerned, the culture of making kimchi in Korea is likely to spread farther than now. (Tasty Korea Tour, 2014)

Figure 1
Kimjang, making and sharing kimchi



Source: Cultural Heritage Administration, 2012

Since the distant past, vegetables have been one of the difficult foods to preserve. When vegetables are dried, their nutritional value decreases and their taste disappears, making them uncomfortable to eat. To solve the problem, the vegetables are salted and found that they can be stored for a long time. In addition to salt, vinegar, and spices were mixed together to create foods with new flavors and aromas. Pickled vegetables like this can be seen as the beginning of kimchi.

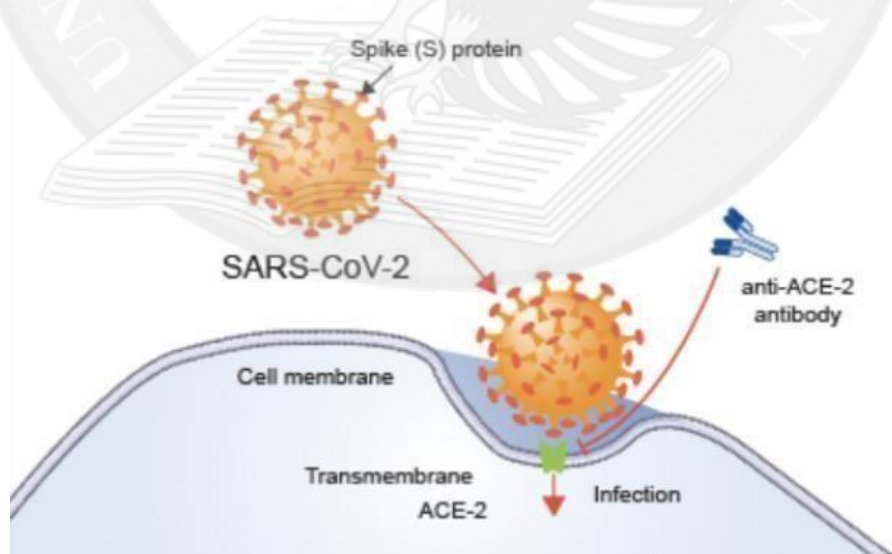
There are two main types of kimchi which is fermented kimchi and non-fermented kimchi. Fermented kimchi made by fermenting vegetables with probiotic acid bacteria (LAB). According to the research of (Park, et al 2014), fermented vegetables have benefits such as anticancer, anti-obesity, anti-constipation, colorectal health promotion, probiotic properties, cholesterol reduction, fibro lytic influence, antioxidative, anti-aging properties, brain health promotion, and skin health promotion. Different from fermented kimchi, non-fermented kimchi does not gain its benefit from the fermentation, but non-fermented kimchi gains its benefit from the ingredient itself.

The popular ingredient for kimchi is cabbage and radish. According to the Ministry of Food, Agriculture, Forestry and Livestock, the harvest time of cabbage is autumn, and it is common to reap before frost. Although it is a small amount of protein, it contains a lot of carbohydrates, and it is also rich in vitamin C. That is why it serves as a source of vitamins in winter. Radish is a kimchi ingredient that is as important as cabbage. Shredded radish is the main ingredient in cabbage kimchi, but it is also mixed with radish seasoning to make *Kkakdugi*. Radish is also rich in vitamin C. An enzyme called diastases helps to aid digestion. Third is salted fish. Salted fish, a representative Korean salted food, plays an important role in adding the richness and depth of kimchi. It is rich in protein, carbohydrates, fats, organic acids, as well as amino acids and inorganic ingredients, which deepens the flavor and taste of kimchi. Fourth is garlic, it is also rich in protein, minerals such as potassium, calcium, and magnesium, as well as vitamins B1, B2, and C. The diallyl sulfide ingredient gives off a sweet scent, and the ingredient called allicin adds spicy taste. Garlic itself is known to be effective in anti-cancer activity and cholesterol levels due to its excellent antibacterial activity. Next is green onion. Green onions, used as a seasoning and an ingredient for kimchi, contain large amounts of calcium, salt, and vitamins. It is said to have a high content of vitamins, so it is said that when a cold occurs, green onion root and ginger are decoction as home remedies. The last ingredient is ginger, which has been cultivated early as a medicinal plant, and is an indispensable ingredient for kimchi. It removes the fishy smell of the salted fish. In addition, the spicy ingredients such as Jingeron and Shogaol are said to be helpful in preserving kimchi as they have a sterilizing effect. (Ministry of Food, Agriculture, Forestry and Livestock, 2014). Kimchi is made by combining these

various nutrients.

In addition to those benefits, kimchi is also known as a good product for immunity during COVID-19 pandemic. According to Dr. Jean Bousquet, a research team led by professor of pulmonary medicine at the University of Montpellier in France announced that the reason Korea has so few deaths from COVID-19 is because of the lactic acid bacteria and the fermentation of kimchi slows down the growth of virus. Professor Bousquet published a paper titled 'Relationship between vegetable consumption and COVID-19 fatality in European countries.' As a result of analyzing, differences in diet by region and the number of deaths due to COVID-19, there are fewer deaths in countries that use fermented cabbage as a staple food. Most Koreans consume kimchi almost every day, and the fermented ingredients of kimchi have been a great help in suppressing the COVID-19 virus.

Figure 2
ACE2 cell receptor responsible for mediating
infection from coronavirus

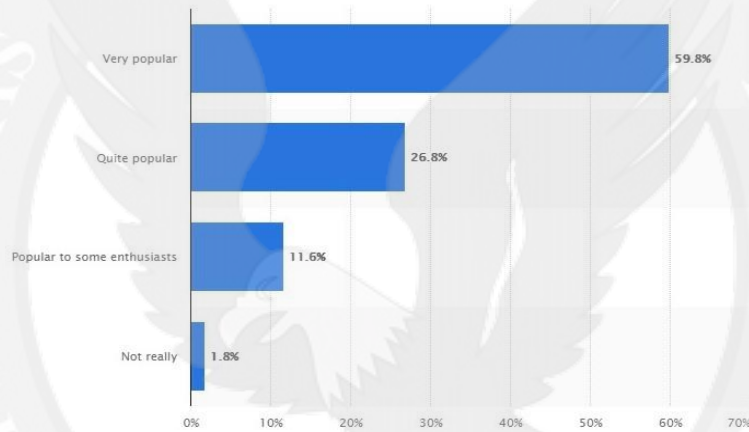


Source: Microbial Analysis Center

Through the analyzing, it was concluded that the active ingredient in fermented cabbage inhibits the enzyme ACE2 (Angiotensin-converting enzyme). ACE2 is an enzyme that exists in human cell membranes, and corona virus must bind to ACE2 to penetrate into cells. It means, ACE2 becomes a kind of mediator, and fermented cabbage suppresses that role.

In Indonesia, the popularity of Korean food including Kimchi itself have been popular since 2019 before COVID-19.

Figure 3
Popularity of South Korean Cuisine in Indonesia in 2019



Source: Statista (2020)

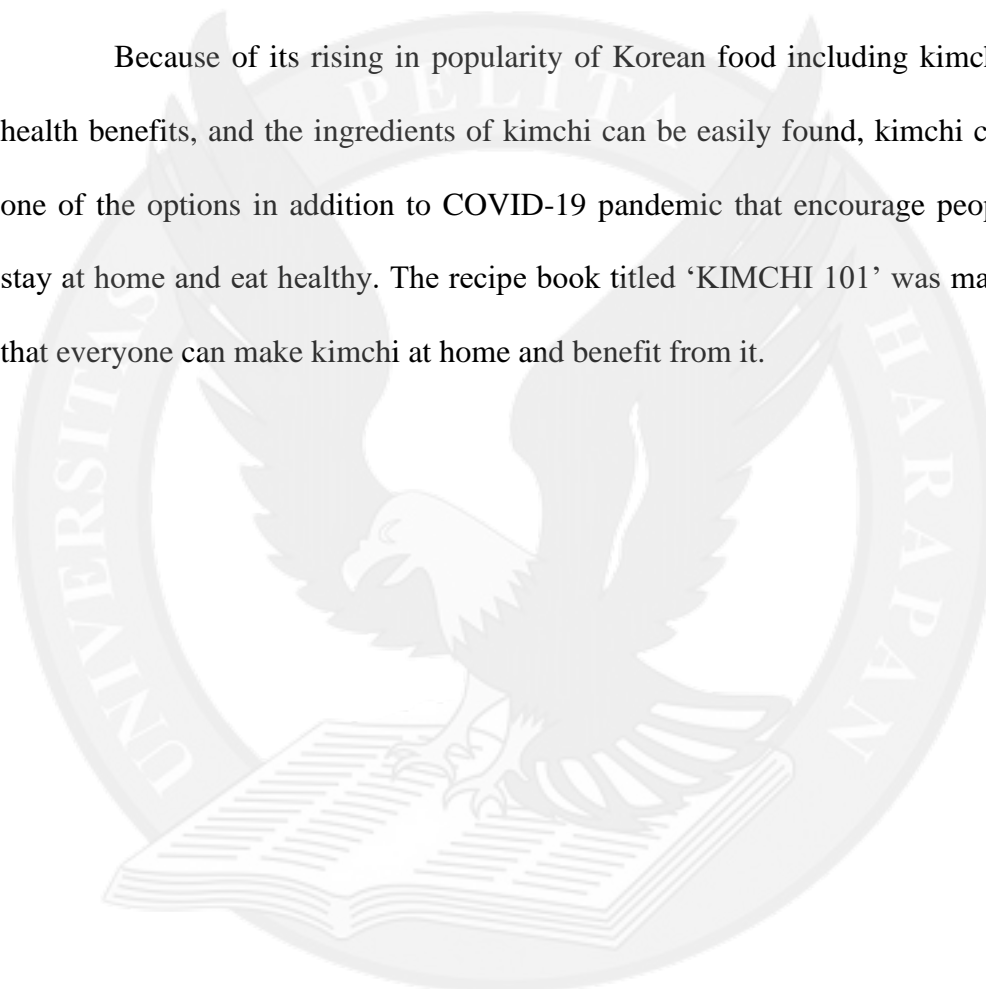
Figure 4
Increasing exports of kimchi



Source: Korea International Trade Association

From the chart above that was conducted by Won So who is a South Korean researcher who questioned ‘How popular is South Korean food in your country?’ to 500 Indonesian people in age between 15 to 59 years can be concluded as high with 59.8% as very popular, 26.8% quite popular, 11.6% popular in some enthusiasts. And figure 4 shows the increase of export of kimchi in globally.

Because of its rising in popularity of Korean food including kimchi, its health benefits, and the ingredients of kimchi can be easily found, kimchi can be one of the options in addition to COVID-19 pandemic that encourage people to stay at home and eat healthy. The recipe book titled ‘KIMCHI 101’ was made so that everyone can make kimchi at home and benefit from it.



B. Purpose of Making Recipe Book

Kimchi is a food that is eaten by fermenting various vegetables such as radish, cabbage, cucumber, and radish in salt and fermenting them at low temperature by mixing seasonings such as pepper, green onion, garlic, ginger, and salted fish. It is one of the most representative foods in Korea. Kimchi is attracting attention from around the world besides Koreans. This is because kimchi's nutritional properties and fermentation science are widely known to people around the world. Our purpose of making this recipe book is:

1. Author wants to make a different book from the book already exist and published by adding fun fact, recipe with ingredients that is easy to find in Indonesian marketplace, and more detail information about kimchi in the book to make the readers more attractive than other books.
2. To introduce recipe about kimchi and this recipe book through community service activity.
3. To be a useful book for readers, especially from millennials to generation Z.
4. To engage people to eat healthy food especially during this pandemic is important to eat food that are full of vitamins.
5. To let people know that making kimchi at home is not that difficult and inform people that there are many kinds of kimchi.