

CHAPTER I

INTRODUCTION

This chapter consists of the background of research, problem formulation, research objectives, research scopes, and outline of the report.

1.1 Background

Industrialization is a process of economic modernization that includes all economic sectors based on factors such as human resources (HR), capital accumulation, and technology (Arsyad, 2004). In its implementation, industrialization is part of the nine economic sectors in Indonesia, which are related to one another with the processing industry, where the food industry is one of the constituent components. The industrialization has led to higher industrial development in Indonesia. One of the industries that have significant growth is the food industry. This extensive development has caused industry players to continue to innovate products and maintain product quality consequently they can compete in this intense competition.

The development of Indonesia's population is increasingly growing, including in West Sumatra itself. As can be seen in **Figure 1.1**, the population in West Sumatra is increasing. It makes food demand in West Sumatra is also increases. Consequently, the food industry in West Sumatra compete to produce more foods to fulfill the consumer needs.

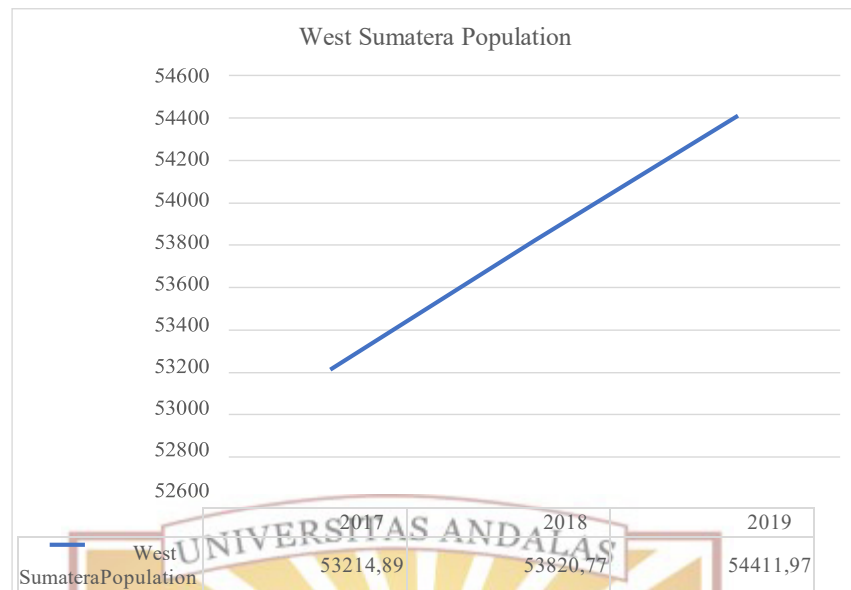


Figure 1. 1 West Sumatera Population (source: Badan Pusat Statistik, 2020)

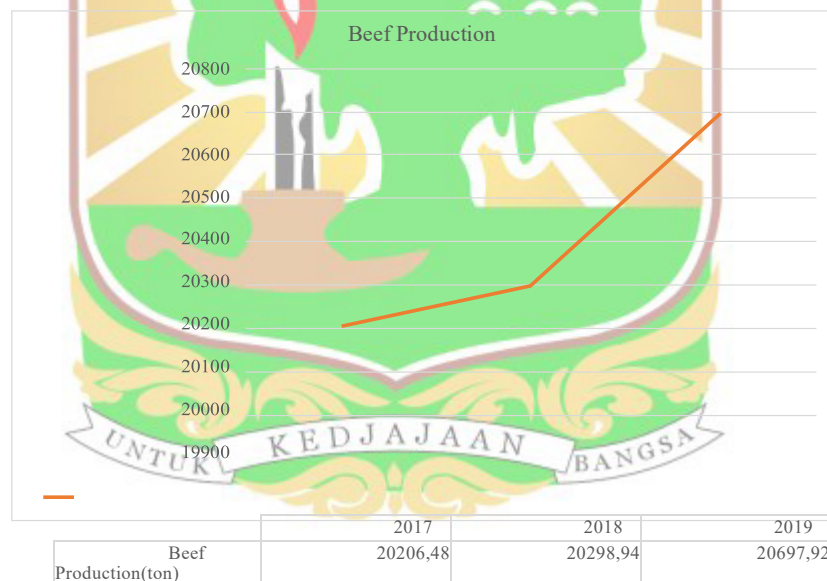


Figure 1. 2 Beef Production (source: Badan Pusat Statistik, 2020)

Since 2017, beef production in West Sumatera has continued to increase as can be seen in **Figure 1.2**. One of the reasons for increasing beef production in West Sumatera is because in 2017, CNN Travel released a list of culinary rankings in the world and announced that rendang was ranked first (Cheung, 2017). This

illustrates that rendang is the food that consumers prefer not only from their home regions, but also from culinary lovers in other areas of the world. This causes food industry players to compete to produce rendang due to the increasing demand for rendang. Its distinctive taste makes many people continue to buy West Sumatra rendang.

Rendang is one of the typical foods of West Sumatra with beef as the base ingredient which is equipped with various kinds of spices. The spices used to make rendang are coconut milk and a special mixture of spices such as chilies, galangal, ginger, turmeric, shallots, and other spices (Bundo, 2015). The mixture of traditional spices produces a distinctive rendang flavor.

Currently, rendang is often found in Padang restaurants or other restaurants that are spread almost throughout the world, including in West Sumatra itself. Rendang is also a menu that is often ordered for formal or traditional events held in West Sumatra. Rendang has become a favorite food for party menus. Rendang is also a favorite choice for gift of typical food or people visiting West Sumatra. Rendang is a mainstay menu because of its distinctive taste. As a mainstay menu, demand for rendang is quite high. This high demand has made many people compete to open a culinary business for Minangkabau cuisine. One of them is Mrs. Sari Novita, who runs a catering business, namely AA.Catering.

AA.Catering is a food company located in Padang, West Sumatra. AA.Catering as a catering company produces catering foods for various events and also sells West Sumatra specialties. AA.Catering sells a variety of food products such as beef rendang, lungs rendang, meatball rendang, and dendeng. One of the favorite foods of AA.Catering customers is Beef Rendang.

Rendang business actors are increasingly making competition in the food industry in the Padang city even more challenging. This makes the food industry face many obstacles. One of the obstacles faced is food safety. According to the

Law of the Republic of Indonesia no.18 year 2012 concerning food, the definition of food safety is the conditions and efforts needed to prevent food from the possibility of contamination of biological, chemical ,and other objects that can disturb, harm, and endanger human health and do not conflict with religion, belief, and community culture so that it is safe for consumption.

According to Puspita (2015), rendang is one of the typical Padang foods made from materials that have the potential to be biologically, chemically and physically contaminated. Nevertheless, Based on the Food Allergy and Anaphylaxis Network (FAAN, 2017), the raw material that used to make rendang is non allergen. Rendang is a favorite typical food for consumers; thus, AA. Catering has to produce in large quantities. On the other hand, food from livestock such as meat and its processed products is a very good growth medium formicrobes, so they are easily damaged. Correct processing can suppress the growthof these microbes (Gustiani, 2009).

Taheer (2005) states that the lack of protection and safety for the food production process can not only cause harm to human health but can also cause economic losses by consumers and producers themselves. Therefore, theproduction and distribution of food in Indonesia has been regulated in the Ministerof Health Regulation No. 329 / MenKes / XII / 1976 2. Chapter II Article 2 states that food produced and circulated in the territory of Indonesia must meet safety, health, quality standards or requirements set by the Minister of Health for each typeof food.

After conducting interviews and field observations, the AA.Catering owner explains the problems about food safety. Mrs. Sari Novita also explained that currently AA.Catering has implemented the principles of Good Manufacturing Process (GMP) and SSOP but has not yet perfect. AA.Catering owner is filled outa questionnaire on the implementation of Good Manufacturing Process (GMP). Based on the results of questionnaire, one of the GMP principles that AA.Catering has not fulfilled is that the floor of the main room is not waterproof, resistant to

water, salt, alkalis, acids, and other chemicals, thus the floor is still slippery. This condition is shown in **Figure 1.3** below. This condition will cause contamination. Another problem is that every work station at AA.Catering has not implemented operational work standards in accordance with the principles. The problem that is also incompatible with the GMP is the absence of a production date label on the rendang box. This results in products not being sold based on the previous production date.



Figure 1. 3 Production Site in AA.Catering

AA.Catering takes a long time to produce rendang. Within a day, the rendang's stirring operator in AA.Catering can produce as much rendang as 10 Kg with 5 hours of continuous stirring of the rendang. This long process of stirring the rendang can be a source of contamination. This is in accordance with (Ratnaningsih, 2010) that potential sources of contamination can come from food handlers, processing equipment and cutlery, as well as cross-contamination (Microbiological contamination in the catering industry can lead to poisoning of buyers of rendang typical foods.

To meet the safety, health, quality standards or requirements set by the Minister of Health, AA.Catering implements a strategy of increasing food safety by implementing Hazard Analysis Critical Control Points (HACCP). This is an effort made by AA.Catering in facing an increasingly competitive era like today. Currently, AA.Catering trying to implement HACPP in rendang production process to meet international standards. Food Safety is needed to ensure that the food is safe at the time of human consumption.

HACCP is a preventive system that has been recognized internationally as a scientific and effective approach in ensuring food safety (Yang et al., 2018). Muhandri et al. (2015) stated that the reason why the application of HACCP is important because the materials used in producing food and during the food production process have the risk of hazardous pollution in the form of physical, chemical and biological hazards. Muhandri et al. (2015) also stated that in the food industry, the dangers contained in food consumed by consumers can cause the industry to lose consumers. This will have an impact on decreasing sales to experience losses. Therefore, the food industry needs to implement HACCP.

HACCP is a systematic approach applied to the food industry to identify and control certain hazards which include the use of materials, end products, facilities and people involved in critical control points (Hung et al., 2015). In addition, the application of HACCP can also increase consumer satisfaction and reduce waste and product damage (Guide to Developing a HACCP Plan for the Food Industry, 2006). HACCP is applied in an effort to control and ensure that the food products produced are of quality and safe for consumption. In addition, HACCP application is carried out as an effort to increase the selling value of the product hence it is expected to increase product sales (Syarifudin, 2003). Increased product sales can increase rendang production which causes AA.Catering companies to increase company profits.

Based on the background described previously, the research was carried out to identify hazard factors related to the process of making rendang in AA.Catering and provide recommendations for the application of the Hazard Analysis and Critical Control Point (HACCP) which aims to make the products more trusted by public and add product value and company image. This will help the company increase product prices to maximize profits.

1.2 Problem Formulation

Based on the background previously described, the problem formulation in this study is "How to design food safety standard of rendang production process using hazard analysis critical control point (HACCP) in AA.Catering "

1.3 Research Objectives

The objectives of this study are to:

1. Identify the physical, biological, and chemical hazards that occur in the rendang production process.
2. Design a HACCP Plan table for the rendang production process.
3. Design a Standard Operating Procedures (SOP) and form as a food safety standard for rendang products using HACCP.

1.4 Research Scopes

The scopes of this research are as follows:

1. The design of a food safety system with HACCP is carried out to the seventh principle, namely the preparation of the verification procedure.
2. Observations are performed from selecting raw materials to packaging rendang products.

1.5 Outline of Report

This final project report is divided into six chapters which are arranged systematically in order to facilitate the reading and understanding.

The outline of the report are as follows:

CHAPTER I INTRODUCTION

This chapter discusses about background of the research, problem formulation, research objectives, scopes of research, and outline of report.

CHAPTER II LITERATURE REVIEW

This chapter contains theories that support research including food safety, the main ingredient of rendang, Hazard Analysis Critical Control Point (HACCP), implementation guidelines and HACCP principles, analysis of hazards and types of hazards, the grouping of hazard sources and standards, and Operational Procedures (SOP).

CHAPTER III RESEARCH METHODOLOGY

The research methodology consists of steps that include the stages in designing food safety standard of rendang production process using hazard analysis critical control point (HACCP) in AA.Catering.

CHAPTER IV RESULTS

This chapter contains data collection and data processing. The data collected consists of primary data and secondary data. The data processing consists of identification of the Implementation of Good Manufacturing Practices (GMP), identification of the Implementation of Sanitation Standard Operating Procedure

(SSOP), prepatory Hazard Analysis Critical Control Point (HACCP), and designing HACCP.

CHAPTER V DISCUSSIONS

This chapter contains of analysis of research results of identifying food safety standard of rendang production process using HACCP in AA.Catering.

The analysis are performed to the results of identification of the Implementation of Good Manufacturing Practices (GMP), identification of the Implementation of SanitationStandard Operating Procedure (SSOP), Analysis Critical Control Point (CCP), andAnalysis design of Standard Operating Procedures (SOP) and form.

CHAPTER VI CONCLUSIONS

This chapter consists of conclusions based on the results of the research that has been done and suggestions for further research.

