

Foreword

This report contains the results of “Research on Business Models of the Sextiary Industry in Southeast Asia,” a joint-research project conducted by Kanagawa University’s Center for Asian Studies over a five-year period starting in April 2019. The project was launched as an international collaborative effort that included not only Japanese researchers from Kanagawa University and elsewhere but also researchers from places such as Malaysia, a country that has developed many initiatives for one of the subjects of this report: halal food. At the time, we were waiting for the upcoming Tokyo Olympic Games, which were scheduled to be held in August 2020. We were, of course, expecting a tremendous influx of inbound tourism. I remember that this project was started with the hope of contributing to international understanding and multicultural coexistence within Asia, at a time when Japanese cuisine is gaining popularity in global markets and food products that use raw ingredients from Japan are increasingly exported overseas.

To our dismay, the global COVID-19 pandemic began in the spring of 2020, less than one year since we launched this project. This placed severe restrictions on not only international travel but also domestic movement within Japan. Yet even amid the pandemic, the supply chain supporting the food that forms the foundation of our very lives did not falter but continued to operate. During the first wave of the pandemic, as stay-at-home measures were widely advocated, I spent most of my time at home. I came across news articles describing the activities of health-care workers as well as the people supporting the various aspects of our food supply chain as essential workers, including those who were working in manufacturing, processing, distribution, wholesale, and retail to deliver food products to our families. I would like to take this opportunity to express my thanks to the individuals who worked hard during the pandemic to sustain our food supply chain.

As we saw, a supply chain capable of providing safe and reliable food products is the bedrock of any society and an essential element in people’s lives. This report is the product of an international collaboration between Japanese and Malaysian researchers on the topic of “Food Integrity and Supply Chain in Asia.” Malaysia is a culturally diverse nation that is home to multiple ethnicities, including those of Malay, Chinese, and Indian origin. Although the religious beliefs and everyday customs of these groups differ, Malaysia has created various social systems and frameworks that compensate for these differences and allow its multiethnic population to coexist. One such mechanism is halal certification. This report covers in detail the basic concept of halal as well as its certification systems, supply chains, and more, but halal food is one of the best examples of a societal framework that achieves food integrity. In this modern era where economic activities are generally global in scope and transcend national borders, there is a growing need for a global supply chain management system which can deploy a global supply chain while also catering to the local cultural and societal needs. Chapters 4 and 5 discuss the current challenges in our food and manufacturing supply chains.

A brief description of this report's contents is provided below.

Chapter 1 (“Introduction – Food Integrity and Supply Chain Including Halal Foods”) briefly explains halal, which is one of the main topics of this report, then talks about some previous research on food integrity as well as the results of studies that looked at Japanese companies which deal with halal food. While the supply chain that handles halal food in Japan is far from perfect, there are a variety of programs working to provide safe and trustworthy food products to all consumers, including those of the Islamic faith.

Chapter 2 (“Consumer Awareness of Halal Foods and Supply Chain to Ensure Higher Food Integrity in Japan”) uses the results of a survey conducted on Muslims in Japan to examine the awareness of consumers regarding food integrity. For people of the Islamic faith, factors such as “Muslim Friendly” and the halal certification discussed in Chapter 1 are essential to ensuring that their food is safe and trustworthy. Nevertheless, the relative priority placed on the needed information varied even among Muslim respondents, highlighting not only the diversity of cuisine but also the importance of providing safe and reliable food products that consumers can rely on. This chapter also discusses the ideal supply chain for halal food in today's Japan.

Chapter 3 (“Current Status of Information Provision on Halal Meals in Japan”) analyzes how information about halal food is currently being provided in the restaurants and shops of Japan's airports and shopping districts, comparing it to Malaysia in that regard. Building on the information in the first two chapters, we present some very interesting case studies aimed at realizing safe and reliable food. The second half of the chapter introduces some examples from the city of Sano in Tochigi Prefecture and other places that used the provision of halal food to achieve community revitalization.

Chapter 4 (“Current State of Food Loss in Asia and Retail Industry Initiatives to Reduce It”) considers the factors that lead to food being thrown away within Asian supply chains, based on the status of food waste on the continent. This is done by examining the economic standards of each nation as well as the various stages of the process that gets items to consumers, including the production and processing of raw materials and areas such as retailing and delivery. It also looks at some methods for reducing food waste through price controls, based on the present state of related legislation and initiatives downstream in the supply chain. The chapter finishes up with a discussion of a recent technological development: a profit-maximization model that combines discount strategies with the blockchain to reduce food waste.

Chapter 5 (“Manufacturing and Supply Chain Challenges in Asia”) discusses some challenges in manufacturing and supply chains through the lens of the manufacturing industry playing a role in the economic activities of Asia. Leading examples of initiatives for implementing quality control in supply chains, reducing carbon footprint as an environmental consideration, and data assimilation with users are introduced here. Of particularly noteworthy attention are the emergen-

cy-response mechanisms that minimized the effects of the COVID-19 pandemic on companies that had business continuity plans or similar measures in place.

Chapter 6 (“Halal Logistics and Halal Integrity Protection”) introduces some of the initiatives aimed at protecting food integrity in the country of Malaysia, which is an advanced halal nation. Special focus is given to the “From Farm To Fork” system of logistics for halal products while explaining the standards and protocols that allow Malaysia to achieve food integrity and elucidating the importance of halal transportation and warehousing within the food supply chain. There have been some instances around the world where food integrity was threatened, including in Malaysia. However, Malaysia has achieved food integrity by implementing halal logistics in conjunction with the food-manufacturing technology discussed later.

Chapter 7 (“Food Technology Ascertain Supply Chain Integrity”) introduces various cutting-edge technologies for verifying that a food product has authenticity or inspecting such products for contaminants. Unfortunately, there have been some cases where the authenticity of a product was ruined either accidentally or intentionally. A high level of halal food integrity has been achieved through the development of food science and technology that include physical as well as chemical, biochemical, and advanced DNA methods. This is a clear example of cutting-edge technology being used to preserve food culture, which is the bedrock of our societies.

Since this series of studies included contributions from Malaysia, we wrote each chapter in both Japanese and English, which was a first for the Center for Asian Studies. It is our sincere wish that researchers overseas as well as those in Japan read this report.

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