

IDE Research Bulletin

Research Summary based on papers prepared for publication
in academic journals with the aim of contributing to the academia

Trade Standards Compliance in Asia

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March 2016

IDE-JETRO

Research Bulletin

Title of Project

Trade Standards Compliance in Asia

Period

April 2015-March 2018

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Aim of the project

In this research project, development of global food supply chains is examined in the era when public food safety regulations as well as private standards are becoming stricter around the world. Three interrelated research was conducted. The first one examines the determinants of foreign suppliers of agriculture and food products by the Japanese importers using a unique survey of firms in Japan. The results indicate that Japanese firms select foreign suppliers mainly through the existing reputation of the suppliers as well as auditing by importing firms themselves. The second research assesses the tea industry in China and Taiwan. In both economies, tea leaves production is mainly done by smallholder famers. If these industries are going to be integrated into the global market, there might be significant changes needed in the production system of tea in these economies. The last research examines the factors associated with the success of shrimp industry in Thailand and differences in the perceptions of private standards in two cities in Vietnam: Hanoi and Ho Chi Minh City. The research shows that the shrimp industry in Thailand was able to withstand a number of difficulties because of the technological cooperation along the supply chain. In Vietnam, consumers in Ho Chi Minh City are more likely to value products certified with private standards compared to those in Hanoi. This indicates a need that promotion of private standards must take into account of difference in preferences of consumers in various cities.

Background of the research

An increase in food and agricultural trade poses a challenge for countries to

ensure the safety of the food supply in the domestic market. Many countries implement food safety regulations to ensure that domestic food production follows these regulations; they also conduct border control of imported food and reject unsatisfactory products, allowing only food that meets safety standards to enter the market.¹ However, inspections at the border should be considered by the public entity as the last check of the safety of food items (including processed foods and raw agricultural products) before they enter the domestic market. To manage risks, some countries, such as the United States and those in the European Union, require additional process control and inspections of processing plants located in exporting countries. They allow products to be imported only if they are processed in these certified plants. The EU conducts inspections based on rules for the hygiene of foodstuffs under the European Commission's Directorate General for Health and Consumers and the US introduced plant inspections through the Food Safety Modernization Act (FSMA). However, many other countries, including Japan, have not established such systematic inspections for foreign suppliers in exporting countries. Risk management for imported food is conducted in the private sector by both exporters and importers in efforts to meet the imported food safety standards of importing countries.

This research examines how supply chains are developed by private sectors in order to ensure compliances to public food safety regulations/standards as well as meeting consumers' demand in different markets. In analyzing this issue, this research project examines the issue from three perspectives: importers' point of view, exporters'/industry's point of view, and the point of view of consumers. The first paper examines Japanese importers behavior by using the results from a questionnaire survey. The second paper investigates Vietnamese and Thai shrimp industries as well as Vietnamese consumers' attitude for food safety standards. The third paper shows tea supply chain development in Taiwan and China.

Japanese Importers' Survey

Methods to assure imported food quality through supply chains in exporting countries have been examined in previous studies, such as Mori, Nabeshima and Yamada (2013) and Suzuki and Nam (2013). However, supply chain structures are

¹ For the qualitative and quantitative analyses on port rejections, please see IDE-JETRO and UNIDO (2013);UNIDO (2010;2015).

not formed by exporters alone. In order to ensure that final products meet the regulations of importing countries, importers (and retailers) can have a large influence on how the production chain is structured, especially via sourcing decisions. Dolan and Humphrey (2000) have shown how UK importers influence supply chain structures and affect the inclusion and exclusion of suppliers from supply chains in African countries. It is important to examine how importers interact with exporters through sourcing decisions.

Based on the analysis, despite many challenges associated with agriculture and food imports from China, Japanese firms rely quite heavily on China and other East Asian countries as sources of their food. This reflects the close relationships between these countries and Japan as well as their similar climatic conditions. Japanese importers relied on past export experience and word of mouth to select suppliers. They did not seem to rely heavily on third-party certificates, but rather relied on their own audits.

The first study showed that customers' characteristics and requirements can vary among countries. While the European importers heavily use standards and the third-party certification (see UNIDO 2015), Japanese importers use own auditors. Japanese importers have been struggling with dealing with multiple standards that are introduced in producing countries as well as other importing countries.

Supply Chains of Vietnamese and Thai Shrimp Industry

The high number of import rejections of food commodities suggests that producers in exporting countries are not complying with established standards. To understand why this is the case, we explore the behavior of producers and consumers in developing countries. First, the paper examined the successful transformation of production practices adopted by shrimp producers in Thailand. In support of the dramatic change in practices, it was observed that an important role played by the public sector in providing a means to visualize chemical residues and to control processes upstream of the supply chain via a registration system and a traceability system called Movement Document. These efforts all assisted the ability of the industry to meet stringent quality requirements imposed by importing countries. Furthermore, very active information sharing by the private sector through the supply chain contributes to the dissemination of useful technical and market information among producers. We also examine the knowledge and perceptions of consumers with respect to food safety in Vietnam. We find that consumers in Hanoi and Ho Chi Minh City behave quite differently toward the third-party certification VietGAP, probably owing to differences in the history of

market mechanisms between the two cities. Consumers in Ho Chi Minh City trust and value VietGAP certification as a signal for high quality and they are willing to pay premium for these products, whereas consumers in Hanoi did not have a similar kind of perception to VietGAP certification.

Tea Supply Chains in China and Taiwan

The study on tea supply chain shows that developments of supply chains relied on government regulations, economic comparative advantage as well as historical paths. The Taiwanese tea industry is predominantly domestically focused. Taiwan imports crude tea from developing countries in Southeast Asia to produce key ingredients for tea drinks, which it then sells domestically and internationally, particularly to other countries in East Asia. This process produces high value-added products. Overall, Taiwan does not export much branded tea leaves. The domestic tea supply chain affects its position in the international market. The domestic tea supply chain in Taiwan has four main characteristics. The first is that the majority of the tea producers in the supply chain are smallholder farmers. These tea farmers all have basic processing capabilities to process fresh tea into crude or fine tea leaves. Some of the larger tea enterprises are highly integrated and sell products directly to consumers. The second characteristic is that the role of the middleman has declined in importance as the tea supply chain become more vertically integrated, both downstream and upstream, and the transportation infrastructure has been developed. The third characteristic is that there is a marked amount of government intervention in the supply chain through the tea competitions to the extent that the government now has governance of the Taiwan tea supply chain. Finally, there remains a lack of internationalization and standardization in the Taiwanese tea industry, which is preventing greater international participation.

The current tea industry structure and supply chain in China has been greatly influenced by past government policies and regulations. For the export tea business, there is an opportunity for businesses to move up on the global tea value chain by adding value to their products, for example, by producing tea byproducts. The Chinese tea supply chain is controlled by both the government and the consumer, the international tea value chain is governed by the producers. Therefore there should be opportunities for Chinese tea exporters to move to finished tea products from mass-produced raw materials. By enhancing the capacity of the tea industry and its influence on the world market, Chinese tea producers may have the chance to direct the future development of the global tea value chain.

Chinese tea farmers are mostly small-sized family-owned enterprises. Most small-sized tea farmers process fresh leaves by themselves, which is especially common in Zhejiang Province.² The trading of fresh leaves is very rare, especially for famous types of tea because they are usually made from top-grade hand-picked leaves, the processing of which does not necessarily require any special techniques or machines. In contrast, refineries that export tea are becoming more and more independent. Through economy of scale they are starting to accumulate market powers of their own because most exported tea is mass-produced tea that refineries can obtain through regular orders with tea farmers.

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² The primary processing of tea leaves are also done at the farm level for green teas in Japan.