



Analysis of Barriers to Brazilian Chicken Meat Imports

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Abbreviations: ABPA, Associação Brasileira de Proteína Animal; HACCP, Hazard Analysis and Critical Control Points



ABSTRACT

Trade liberalization during the last decades has increased among nations as a result of decreased tariffs. However, during the same period, market agents have created new protection measures to replace such mechanisms in an attempt to promote the domestic economic stability of countries, while expanding and ensuring the trade between nations. Considering that Brazil is the second largest broiler producer and chicken-meat exporter worldwide, the present study proposed to analyze the main barriers imposed on Brazilian chicken meat imports by the ten major importing countries. This is a documentary research with primary and secondary data, of a descriptive-exploratory nature, under a qualitative approach. Semi-structured questionnaires including open- and close-ended questions were sent using Survey Monkey software to the Brazilian Association of Animal Protein. The study revealed that technical requirements are those most often imposed by the importing countries, indicating their concern about the safety, quality, and origin of the imported good. Commercial requirements do not constitute a problem for the growth of Brazilian chicken meat exports; however, the requirements made by some countries preclude the exports.

INTRODUCTION

The preferences of the consumer market have changed over the years. In the past, the purchase of food products was primarily determined by the lowest price. Today, in addition to price, consumers' choice is also based on product technical specifications and production conditions. Food-importing countries are increasingly imposing restrictions to biological, chemical, or physical contaminants, as these may compromise product quality and limit the participation of food companies in markets with stringent regulations (França, 2005).

Protectionism is an economic policy of national governments that restricts international trade by establishing tariff and non-tariff barriers. Non-tariff barriers include consumers' demands for healthy, safe, and high-quality foods, in addition to environmental and animal-welfare concerns (Souza *et al.*, 2011). Therefore, to thrive in a highly-demanding market, the poultry industry must comply with productivity, health control, and economic efficiency requirements (Gray *et al.*, 2011). Several health barriers are imposed on Brazilian poultry products by the international market, in particular due to the presence of the Avian Influenza and Newcastle disease viruses, as well as the use of in-feed antibiotic growth promoters (e.g., avilamycin and flavomycin) and anticoccidials (nicarbazin and nitrofurantoin) (Souza *et al.*, 2006).

The Brazilian government has invested in the promotion of safety in chicken-meat production through the National Contingency Plan for Avian Influenza and Newcastle Disease developed by the Poultry



Health Coordination and Animal Health Department. Any hazardous material entering the country is also controlled by preventive actions across the entire Brazilian territory. These measures aim at preventing the incidence of these diseases, ensuring the safety and quality of Brazilian chicken meat (MAPA, 2009).

The world population should reach approximately 9.2 billion people until 2050, which will increase the demand for animal protein-derived foods. Brazil is at the center of food production prospects, as it is among the ten largest global economies, supplying food and agricultural products to the world. In addition, Brazil is the second largest global producer and the first exporter of chicken meat (OCDE, 2015; Avisite, 2017). Considering the expansion of Brazilian chicken meat production and the potential growth of the global consumption of animal protein, the barriers adopted as protectionist policies are questioned as they jeopardize the exports of chicken products. In this scenario, the objective of the present study was to characterize the main barriers imposed by the ten main importers of Brazilian chicken meat in 2016.

MATERIALS AND METHODS

Nature of the research

This is documentary research of descriptive-exploratory nature, using a qualitative approach to primary and secondary data, to characterize the barriers imposed by the main Brazilian chicken meat importing countries. Because this is a descriptive study, no statistical methodologies were used.

Data collection method

The import requirements of the ten main importers of Brazilian chicken meat in 2016 (Saudi Arabia, Japan, the Netherlands, China, United Arab Emirates, Hong Kong, South Africa, Kuwait, Singapore, and Egypt) (Avisite, 2017) were surveyed.

The study was based on data provided by the Brazilian Association of Animal Protein (*Associação Brasileira de Proteína Animal* - ABPA). This choice was made because ABPA is the agency responsible for surveying the imposed barriers and collecting information on importing countries as well as Brazilian chicken meat exporting data. The barriers were divided into three types: technical, commercial, and general requirements.

Technical requirements are those aiming at aligning standards and inspection norms, industrial safety, packaging, and media norms, as well as sanitary and

phytosanitary measures, and may be mandatory or voluntary (Silva *et al.*, 2011). Commercial requirements consist of the application of tariffs on products and involve issues such as import or export taxes, foreign-exchange rationing, prohibitions, and subsidies, i.e., customs taxes (Luz, 2011). Lastly, general requirements refer to issues directly related to live production and slaughter processes, which should follow the norms established by the importing countries and which may include occasional mandatory inspections of the processing plant, certifications, and product quality measures (INMETRO, 2015). Additionally, the present study lists the countries that do not import chicken meat from Brazil and their reasons for this, as well as those that could be potential importers if those barriers were not in place.

A semi-structured questionnaire containing open- and close-ended questions was thus applied aiming at performing systematic evaluation and collection of data. The questionnaire was developed by and sent via the Survey Monkey software to ABPA and answered by the person in charge of the exports sector.

RESULTS AND DISCUSSION

Brazilian chicken meat exports/imports

Brazil is the largest global exporter of chicken meat since 2004. In 2016, it exported around 4,307,000 metric tons (MT) of chicken meat. The ten main importers were Saudi Arabia, China, Japan, United Arab Emirates, Hong Kong, South Africa, the Netherlands, Kuwait, Singapore, and Egypt (Avisite, 2017) (Figure 1).

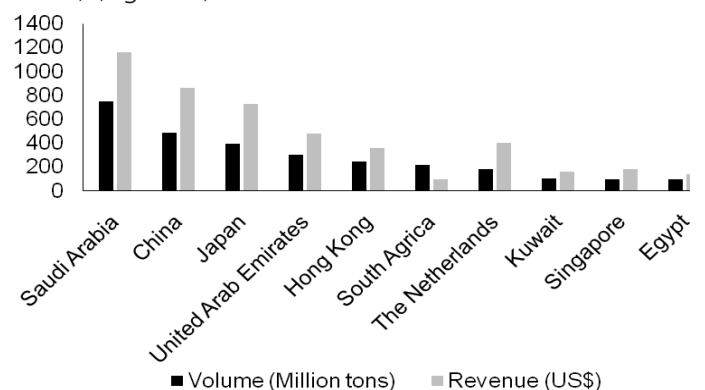


Figure 1 – Imports volume and revenue generated from the ten major Brazilian chicken meat importing countries in 2016.

Source: Created by the authors based on data available at the Avisite website (2017).

These ten main importers accounted for almost 66.9% of the total chicken meat exported by Brazilian 2016. The two main importing countries were Saudi Arabia, representing 17% of the total exported volume,



followed by China, with 484,500MT, corresponding to about USD 2,017,600. Japan and the United Arab Emirates were the third and fourth main importers, respectively, and, together, the volume imported by those two countries in 2016 was 698,700MT, accounting for around 16.2% of total exports (Avisite, 2017).

Requirements imposed by importing countries

Technical requirements

Technical requirements establish norms and technical regulations, such as inspections. They have a restrictive effect on sales and may be mandatory or voluntary (Silva *et al.*, 2011).

Relative to changes made in products, processes, and sales with a view to meeting the technical and health requirements of each country, structural or technical-operational requirements were imposed by eight countries (Saudi Arabia, Japan, the Netherlands, China, United Arab Emirates, Hong Kong, Kuwait, and Egypt) (Figure 2). Structural and/or technical-operational requirements consist of changes in the physical parts of slaughter plants, e.g., renovations and expansion aiming at fulfilling the requirements and enhancing the technological level of production (França, 2005).

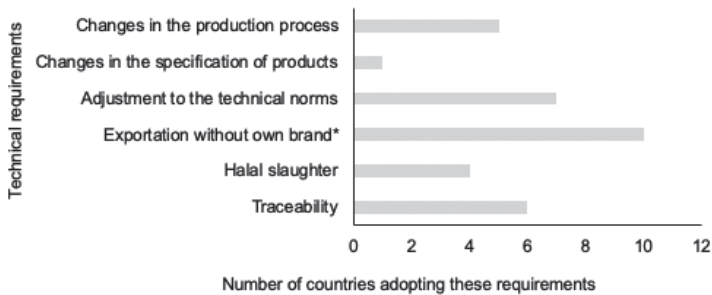


Figure 2 – Types of technical requirements imposed by the ten major Brazilian chicken meat importing countries and number of countries adopting these requirements.

*Any good can be exported under its own brand or a brand/registration from the importing country. Source: Created by the authors based on the ABPA survey data.

All ten studied countries (Saudi Arabia, Japan, the Netherlands, China, United Arab Emirates, Hong Kong, South Africa, Kuwait, Singapore, and Egypt) adopt the Hazard Analysis and Critical Control Points (HACCP) tool (Figure 2). As a certification of food safety, HACCP defines the measures to be implemented for the control food-safety risks, ensuring that the products receiving that certification are produced, handled, packaged, distributed, and supplied safely and in accordance with the requirements established by those norms (CERTIF, 2005). It is an important tool in food exports, as it

ensures that the international market's demands are fulfilled.

Six countries required the traceability of Brazilian chicken meat (Saudi Arabia, Japan, the Netherlands, China, United Arab Emirates, and Hong Kong) (Figure 2). This type of requirement demonstrates the concern of the importing countries about receiving safe, high-quality meat that meets their requirements. França (2005) declared that traceability is important because it allows following the history of the production process and obtaining the information recorded during the stages of the process. It is, therefore, an indicator of product quality that allows the consumer to know its origins.

All ten countries required that the products to be exported without the processor's brand (own brand) (Figure 2). In this case, the importing party should receive the product without the exporter's brand and may add its brand without claiming the origin of the product (Souza *et al.*, 2011).

Out of the ten major importing countries, four (Saudi Arabia, United Arab Emirates, Kuwait, and Egypt) require the Halal slaughter method (Figure 2). This procedure follows the Islamic rituals, which requires the animal to be slaughtered by a Muslim, who must evoke the name of Allah and say a prayer to God. The animal's face must be turned towards Mecca and its death should be quick to prevent suffering (Shahdan *et al.*, 2016).

Adjustment to the technical norms of the countries of destination refers to the production and/or processing of the meat, which should be done conventionally and comply with the norms of the importing country. The product must not contain substances unsuitable for human consumption and its production must respect nature, animals, and man (Souza *et al.*, 2011). This requirement is made by Saudi Arabia, the Netherlands, United Arab Emirates, South Africa, Kuwait, Singapore, and Egypt (Figure 2).

Changes in the specification of products consist of how it is presented, including specificities determined by the importing country (Felk & Bittencourt, 2013). The Netherlands is the only country among the studied group that has this requirement for the import of Brazilian chicken meat (Figure 2).

Out of the ten evaluated countries, only Saudi Arabia, the Netherlands, United Arab Emirates, Kuwait, and Egypt have requirements regarding changes in the production process. Upon fulfilling that requirement, the company starts to meet not only the local, but also the international market (Felk & Bittencourt, 2013).



According to Souza *et al.* (2011), the technical requirements imposed by importing countries are often established based on demands made by consumers, who seek healthy, safe, high-quality foods and are concerned with environmental issues involved in their production.

Commercial requirements

Commercial and/or tariff requirements are those involving the application of tariffs on the products as well as factors such as import or export taxes, quotas, foreign-exchange rationing, prohibitions, and subsidies, i.e., customs taxes, among others, in addition to negotiation-related issues (Luz, 2011). According to the survey conducted by ABPA, requirements such as voluntary agreements on export restrictions, customs procedures, environmental stipulations, internal commercial policies, international agreements, and increases in import tariffs were not made by these ten countries.

As shown in Figure 3, package labeling specifications, which consist of the type of product packaging and product-specific information on the label, are the most commonly imposed commercial requirements. As one of the twelve requirements listed in the study, this is adopted by seven out of the ten surveyed countries (Saudi Arabia, Japan, the Netherlands, China, United Arab Emirates, Hong Kong, and South Africa). Following this requirement, inspections and tests are performed by seven of the ten countries (Japan, the Netherlands, China, South Africa, Kuwait, Singapore, and Egypt) to check whether their requirements are being fulfilled (Figure 3).

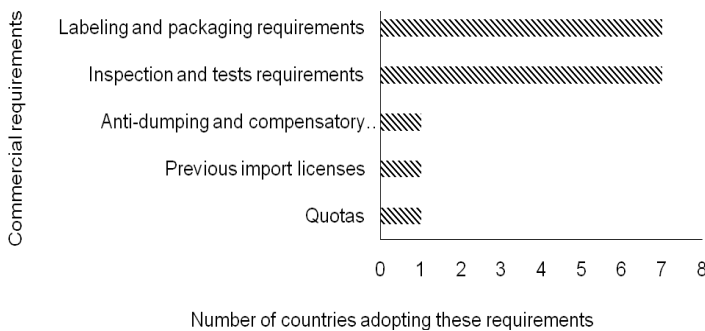


Figure 3 – Types of commercial restrictions imposed by the ten major Brazilian chicken meat importing countries.

Source: Created by the authors based on the ABPA survey data.

Anti-dumping and compensatory measures are aimed at offsetting possible losses suffered by a company due to imports at dumped prices, i.e., imports sold at a price lower than that currently practiced in the market (Souza *et al.*, 2011). Among the ten studied countries, these measures are applied only

by the Netherlands (Figure 3). The Netherlands also adopts quota measures (Figure 3), whose purposes are to protect the domestic market and to ensure that the country does not import volumes that might compromise its revenue generation.

Previous import licenses are required only by China (Figure 3). These must be requested at the agencies responsible for foreign trade and consist of licenses to export to a given country. Thus, the exporter must declare whether it accepts the norms established by the importing countries. Licenses may often become excessive and burden the importing process (Burnquist *et al.*, 2011).

Commercial requirements are always present in international business transactions, since they aim at regulating and protecting trade, thereby safeguarding the domestic economic stability of the countries. They may, nevertheless, complicate negotiations (Ratti, 2000; Luz, 2011).

General requirements

As the name itself suggests, general requirements comprise numerous factors directly linked to the production and slaughter processes that should follow the norms established by the importing countries. Those involve concerns on the protection of the flora and fauna of the producing country and the life and health of humans and of livestock, as well on the use of additives, contaminants, toxins, or disease-causing organisms in foods, beverages, or animal feeds (INMETRO, 2015).

China, the Netherlands, and Egypt require visits for the inspection of the production unit, during which they check that the required certifications are being complied with by monitoring the meat processing and marketing stages (Figure 4). These visits are ultimately costly to the processing companies, as they are time-consuming and interfere with the ongoing work (Felk & Bittencourt, 2013; INMETRO, 2015).

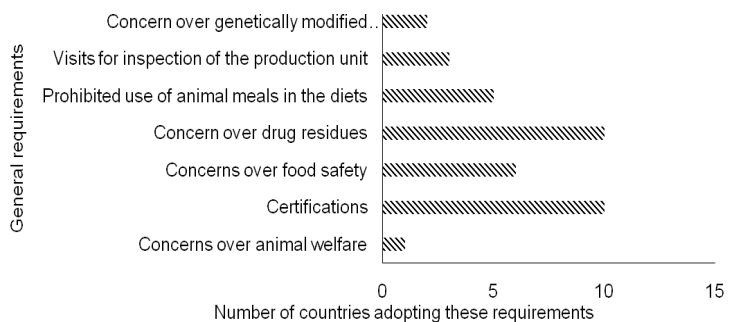


Figure 4 – Types of general requirements imposed by the ten major Brazilian chicken meat importing countries

Source: Created by the authors based on the ABPA survey data.



Saudi Arabia, the Netherlands, United Arab Emirates, Kuwait, and Egypt do not allow the use of animal-derived meals in poultry feeds due to the occurrence of bovine spongiform encephalopathy in Europe in the late 1990s (França, 2005) (Figure 4).

Concern over genetically modified organisms, which pertains to the import of meat of chicken fed transgenic plant-derived products (França, 2005), is mandatory when exporting to Kuwait and Egypt (Figure 4).

Relative to drug residues in the meat, the ten investigated countries (Saudi Arabia, Japan, the Netherlands, China, United Arab Emirates, Hong Kong, South Africa, Kuwait, Singapore, and Egypt) determine restricted use thereof according to the established dose and withdrawal period for anticoccidials and antibiotics. In this way, it is guaranteed that the imported meat does not contain residues of these drugs, ensuring food safety (Spisso *et al.*, 2009).

Similarly, all countries (Saudi Arabia, Japan, the Netherlands, China, United Arab Emirates, Hong Kong, South Africa, Kuwait, Singapore, and Egypt) require certifications established according to the degree of specialization (Figure 4). Therefore, the company must have certifications that ensure the quality of the product. These must be internationally accredited by the certifying agents, increasing the reliability of the exporting establishment (França, 2005).

Concern over the birds' welfare is one of the requirements imposed by the Netherlands. This relates to how the animal is produced, including its housing, handling, transport, and slaughter in order to ensure bird welfare during all these stages, minimizing anxiety and/or pain (Nääs *et al.*, 2012).

Barriers imposed by importing countries

The survey conducted by ABPA revealed that, among the main importers of Brazilian chicken meat, Japan, the Netherlands, and China are those that impose the most commercial requirements. Out of the twelve items included in the questionnaires, these countries adopt at least three (Figure 5).

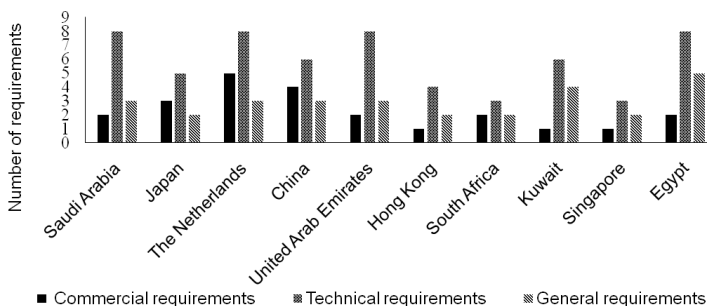


Figure 5 – Number and type of requirements imposed by the main Brazilian chicken meat importing countries.

Source: Created by the authors based on the ABPA survey data.

Saudi Arabia, the Netherlands, United Arab Emirates, and Egypt are the countries that impose the largest number of technical requirements, as they adopt eight of the total listed here (Figure 5). General requirements are most frequent in Kuwait and Egypt, which adopt four out of the nine items included in the questionnaire (Figure 5). Therefore, technical requirements are the most frequently demanded, followed by commercial and lastly by general requirements.

The larger number of technical requirements compared with commercial and general requirements is related to consumers' demands for products with good quality and certifications that guarantee their safety. According to Segerson (1999) and Henson & Wilson (2005), the several technical requirements demanded by importers from exporting countries are, in general, more stringent than those domestically imposed. Technical requirements are characterized by norms aimed at harmonizing technical regulations, and standards and inspection norms. These norms and regulations vary across countries and are considered obstacles to exports precisely because, in some cases, they differ from the internal requirements (Silva *et al.*, 2011).

Commercial requirements come second, and are related to the application of tariffs on products and random factors that are frequent in this type of negotiation. The number of these requirements tends to decrease over the years due to agreements established to facilitate the trade among nations (Figure 5) (Luz, 2001).

General requirements are the least common, and these refer to general specifications that encompass the production, slaughter, processing, and sale of the product, and which may be indirectly present in the technical and commercial requirements. In general, they are not established individually, but as part of other obligations (Figure 5) (INMETRO, 2015).

Countries that do not import Brazilian chicken meat

The survey conducted by ABPA shows that Brazil is currently a potential exporter of chicken meat to Indonesia, India, Senegal, and Nigeria. However, these exports are still not effective as some of the requirements made by those countries could not be met.

Indonesia requires that 100% of Brazilian processing plants to apply Halal slaughter, as well as a direct maritime freight route to Indonesia. Moreover, the import license is not automatic, but rather extremely



bureaucratic. The market of India is theoretically open, but the fact that the import licensing system is not automatic prevents imports. Furthermore, the high tariffs imposed by India make exports more difficult. Both Senegal and Nigeria do not import poultry meat from anywhere in the world. These countries claim that the aim of this measure is protecting the local poultry industry and preventing the entrance of the avian influenza virus.

According to Krugman & Obstfeld (2010), trade barriers are created to safeguard the economic stability of a nation and make domestic trade fair; however, they also create obstacles to achieve these objectives. The requirements imposed by India, which adopts high import tariffs for Brazilian meat, and by Senegal and Nigeria, which do not import from any country in order to protect the local poultry industry, prevent the trade of chicken meat and the expansion of international trade.

In conclusion, the non-tariff barriers imposed in international chicken-meat trade are selection elements that indicate the quality and safety of products for consumers. The imposed international requirements change poultry production as local poultry companies strive to meet these requirements, making them more competitive both in the international and domestic market. The present research shows that technical requirements are those most commonly imposed by importing countries, followed by commercial and then by general requirements, which include the entire production/packaging process and issues included in negotiations in general.

The commercial requirements imposed by the countries as a protectionist measure seem to hinder negotiations among nations and opening new markets. In the present study, however, the requirements imposed by the main Brazilian chicken meat importing countries did not to considerably influence the growth of the poultry industry, as all those requirements have been met. On the other hand, countries like Indonesia, India, Senegal, and Nigeria do not import Brazilian chicken meat, and the last two do not import from any country in the world. These findings indicate that commercial requirements are still present in international trade and ultimately prevent some negotiations between nations, in general terms.

CONFLICT OF INTEREST

We certify that there is no conflict of interest with any commercial organization regarding the material discussed in this manuscript.

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