



THE COMPETITIVENESS OF THAILAND'S POULTRY INDUSTRY

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Abstract

The poultry industry is one of Thailand's most promising agri-food segments and contributes to the country's aim to be the "kitchen of the world," a key government policy to enhance the national competitiveness. The main objective of this research was to examine the competitiveness of Thailand's poultry industry, particularly regarding the poultry processing sector for export. Qualitative analysis was applied in this study by using both secondary and primary data. While secondary data were mainly collected from Thailand's poultry symposium from October 2013 to December 2013, including data from government agencies and the private sector, the primary data were in-depth interviews with key informants from policy makers and industry experts, as well as key exporters in this sector. Data from five of the top poultry exporter countries in the world were analyzed using the Revealed Comparative Advantage (RCA) equation. Furthermore, Porter's Diamond Model was also used to propose a comprehensive model in order to determine the extent to which Thailand is competitive in the poultry industry in the global market. Finally, recommendations and suggestions are proposed for (i) the private sector in terms of improving business operation to meet foreign markets' requirements, particularly in the region, which will become the ASEAN Community in 2015, as well as for (ii) the public sector, in terms of how to initiative policies that can promote the competitiveness of Thailand's poultry industry.

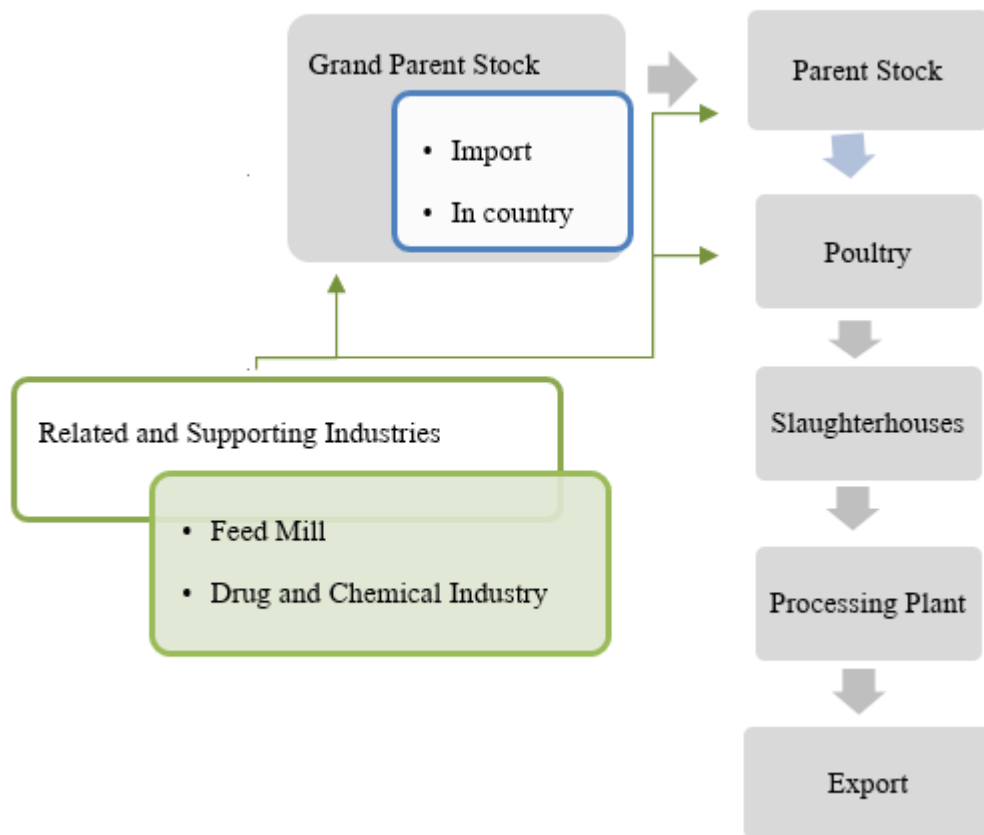
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INTRODUCTION

Thailand's broiler chicken industry dominates over 85% of the country's total livestock exporting to Japan, Europe and other ASEAN countries which generates more than 200 million USD in 2012 (International Trade Center, 2013). And after Thai government launched the "Kitchen of the World" campaign, a demand of chicken products has been increasing progressively as chicken is a moderate choice for people of different religions. The Kitchen of the World aims to position Thailand as the world's top 5 in food and agricultural export countries and to prepare Thailand for the ASEAN Economic Community (AEC) in 2015. AEC will make ASEAN market more attractive with larger size of population of 600 million people or 10% of world's population, better economic growth by 5.6% in 2012 increased from 4.7% in 2011 (ASEAN, 2013) and other supporting factors such as a reduction of tariff and non-tariff barriers.

The purpose of this study aims to analyze general information and current situation of Thailand’s poultry industry under ASEAN Economic Community framework by collecting primary and secondary data. The primary data was collected from an in-depth interview with members of the Thai Broiler Processing Exporters Association and the Porter’s Diamond Model, and Revealed Comparative Advantage (RCA) methods were also used in this study. The findings shall give recommendations to improve the country’s competitiveness in poultry industry.

Figure 1 Poultry farming diagram in Thailand



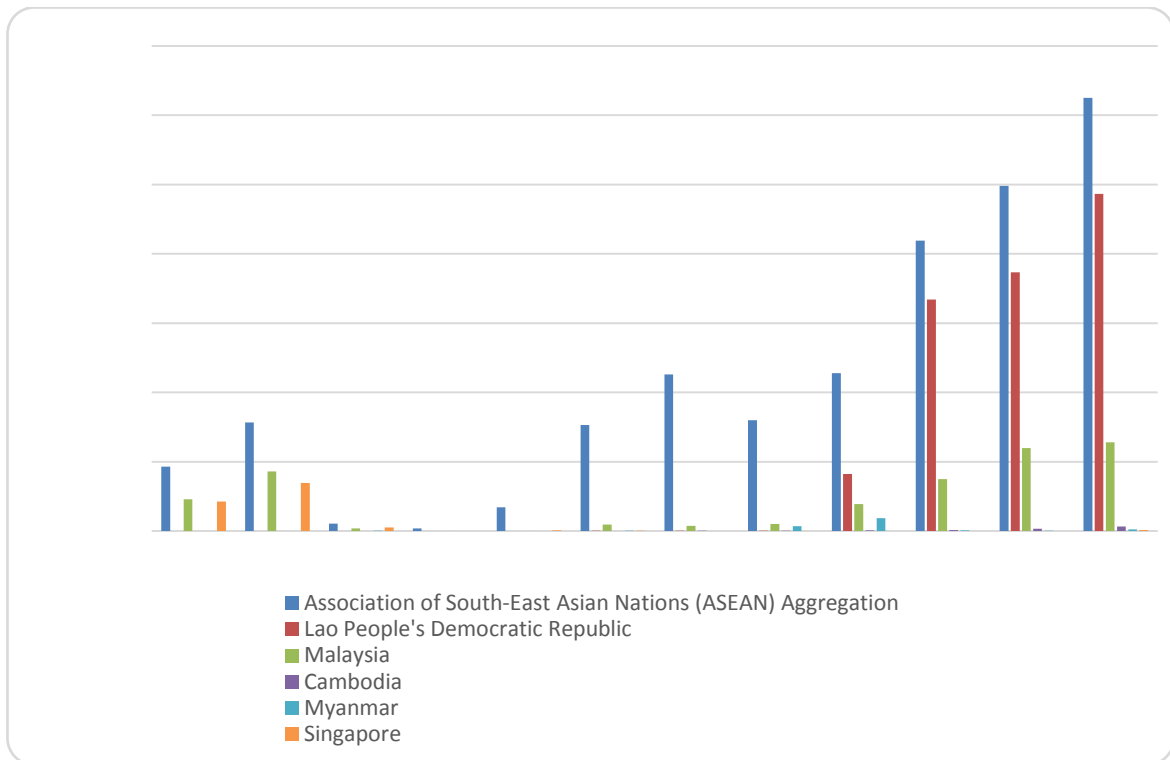
OVERVIEW OF POULTRY INDUSTRY

Poultry industry in Thailand

Chicken and duck farming are major businesses of Thailand’s poultry industries in which majority of the farms are clustered in central region of the country. Figure 1 illustrates the poultry farming diagram in Thailand. There are only 12 large-scale companies that produce and export poultry meat in the country (Nuantem, 2012). These companies usually import grandparent broiler chicken from abroad while some may import the great grandparent broiler chicken and develop the breeds themselves. On the other hand, duck farming usually import only parent duck.

During 2003 – 2004, poultry meat produced in Thailand were prohibited by many countries caused by a wide spread of bird flu. This had decreased country's income of selling poultry products from 600 million USD to 46 million USD in 2004, and 16 million USD in 2005 or 97% within 2 years. However, Thailand's export of poultry meat to ASEAN countries generated over 99.6 million USD considering 50.4% of country's total export (Figure 2). Laos and Malaysia are major trading partners who import chicken from Thailand the most – Laos spends 75 million USD and Malaysia spends 24 million USA. Other ASEAN countries that imports poultry meat from Thailand are Cambodia, Vietnam and Myanmar (International Trade Center, 2013).

Figure 2 ASEAN imports poultry meat (0207) from Thailand (US Dollar Thousand)



Source: International Trade Center, 2013

The global market

In 2012, China, Brazil, and India are big producers of broiler chicken - they increased a production quantity from previous year. That's affected the pricing system in global market as poultry meat produced by these countries dominated more than 85% of poultry meat produced in the world (DLD, 2013). In ASEAN, Vietnam has rapidly become one of the countries producing and exporting poultry meat – it increased production quantity by 5.47%. Since 2010, Vietnam has improved quality of farms, poultry breeds, and processing procedures (Nuanthem, 2012).

The demand of poultry meat around the world has been raised significantly, especially in China, European Union, Japan, as well as ASEAN by 4.37% in 2012.



Thailand is the only country in region that produces large quantity of poultry meat more than its domestic demand and export to neighbor countries such as Philippines (1.5 hundred thousand tons), Singapore (1.4 hundred thousand tons). Philippines also import chicken meat from The USA values 114 million USD or 51% of total imports. The situation of poultry meat industry in global market tends to be better as price of other meats are increased while price of animal food is slightly cheaper. However, overall global trade is still affected by a downturn of new markets, weaker Japanese Yen, and demand volatility in China and Hong Kong. The United States Department of Agriculture predicts that the demand of broiler chicken in global market will be increased by 25% due to competitive price compare to other kinds of meat (Nuantem, 2012).

RESEARCH METHOD

In order to examine the competitiveness of poultry industry in Thailand, Revealed comparative advantage (RCA) and Diamond Model have been applied.

Revealed comparative advantage (RCA)

Revealed comparative advantage is an index used for calculating the relative advantage and disadvantage of a certain country in international economics. A comparative advantage of goods is revealed if $RCA > 1$. If RCA index is less than a unity, the country is considered to have comparative disadvantage in industry (Pichaya-Satprong, 2006).

Competency and competitive advantage

Competency index is a tool used for calculating advantages and disadvantages of nations in international trading (The Organization for Economic Co-operation and Development, 2001). Refer to Michael E. Porter's research paper studying international trade pattern in 1990, the Competitive Advantage of Nations is an internationally recognized tool used to analyze competitiveness in industry. The conditions of industrial success are called "Diamond Model", and are divided into 4 main factors and 2 supporting factors (Lui, 2004).

1. **Factor Condition** means resources needed for manufacturing such as infrastructure resources i.e. land, labors, and capital. The Diamond model also covers "Advanced Factors" meaning skilled labors or specialists such as engineers, technicians as well as quality of country's infrastructure.
 2. **Demand Condition** is a domestic demand for goods which creates a competitive advantage within home market and results in a quality improvement of goods over competitors due to a pressure from buyers.
 3. **Related and supporting industries** create a competitive advantage by producing and sharing useful information within its "Industrial Cluster".
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4. **Firm strategy, structure and rivalry** create a competitive advantage to industries as buyers keep pushing companies to improve products quality and invent new technology over competitors in intensive markets.

Besides the four determinants of Diamond Model, there are two additional factors which provide supporting roles to industries which are:

5. **Chance** means agreement that profits tax privileges, political stability and currency exchange.
6. **Government policy** means policies that support investment, clustering and industries.

Data collection and methodology

The data collection was conducted by collecting both primary and secondary data. The primary data was retrieved from an in-depth interview with the Thai Broiler Processing Exporters Association where the 12 Thai major poultry meat producers are members (Thai Broiler Processing Exporters Association, 2012). The secondary data was retrieved from a collection of information, and statistics from government and public sectors. These include statistic on quantity and value of export, information of non-tariff barriers. Data collected was analyzed using the following methodologies.

Quantitative analysis was done by using RCA index in calculating competitive advantage of Thailand poultry industry and its competitors during 2002 – 2012. RCA index will reveal Thailand's competencies and its competitors in the industry.

Descriptive analysis is the study of competitive advantage using Michael E. Porter's Diamond model which describes structure of poultry industries and related industries. This includes factor conditions, market needs, technologies, costs, problems as well as an analysis of other factors that support or delay the industries. The study will envisage the factors affecting Thailand's competitive advantage both internal and external and support more quantitative researches.

FINDINGS AND DISCUSSIONS

Factor conditions

Tropical climate and plains in central region of Thailand provide a proper environment to farm chicken, duck and other poultry. Thailand also grows lots of cassava which is a great source to produce animal food so that the price of cassava is quite stable – 1.80, 1.83, 2.01, and 1.88 USD per kilogram (Lee Feed Mill Plc., 2013).



After the launch of AEC, Thailand will be profited from a relaxation of tax in which it can import cheaper corn and soy to produce animal food.

Thailand is ranked the 3rd largest country by area after Indonesia and Myanmar (UASEAN, 2012) and secures a huge area of plains which is ideal to grow agricultural plants. Moreover, Thailand has more than 30 years of experience in chicken and poultry processing. In terms of labor availability, even though there are approximately 40 million labors aged 18 – 60 years old but cost of labor in Thailand is one of the highest in ASEAN after Singapore as the government has increased the standard labor fee to 300 Thai baht a day (International Labour Organization, 2013). In terms of transportation, Thailand is among competitive nations as the proportion of pavement in the country is very high (80.8%) compare to Singapore (100%), Philippines (80.5%) and Malaysia (78.3%). In addition, Thailand is much closer to Japan, world's number one in importing chicken, compare to Brazil which is the biggest chicken producer. It takes 10-14 days to ship chicken to Japan from Thailand while it takes 8 weeks to ship chicken from Brazil to Japan (AJTP Information Center, 2012).

Demand conditions

Thailand is the 4th largest country by population of 64.5 million in ASEAN after Indonesia (244 million), Philippines (95.8 million), and Vietnam (90.4 million). Thailand's demand of chicken consuming in 2012 is 1.292 million tons or 19.8 kilograms per person per year increasing from 2011 by 3.4% (ASEAN, 2013). In 2012, Thailand produced 1.83 million tons of chicken meat, more than domestic demand by 0.54 million tons. However, the demand of chicken in the country is still increasing according to the economic growth and relating industry such as fast food industries using chicken as a main ingredient (Thai Broiler Processing Exporters Association, 2012).

The demand of chicken in global market is also relatively increasing due to a massive economic growth in China, ASEAN, and European Union (except Greece and Italy) and high price of pork and cow meat (Foreign Agricultural Service (USDA), 2013).

Relating and support industries

According to the study findings, relating industries are slaughterhouse, poultry processing plants, food processing companies, and restaurants while support industries are animal food manufacturers, and veterinary companies.

Price of raw materials used in animal food manufacturing is increasing as some ingredients such as soybean meal must be imported from other countries. In addition, they are being used to produce alternative energy resulting in a depletion of raw materials and increased fuel price also affects cost of business the whole process. Most of vaccines and vitamins used in poultry industries also need to be imported from other countries so that it makes them more expensive.

Firm strategy, structure and rivalry



Farming structure and process in Thailand have been developed intensively to meet international standard and comply with customer needs. The development includes an implementation of intensive farming, a regular evaluation by external auditors, and traceability. These methods are applied in upstream poultry processing organizations which are chicken producing companies and farms. The downstream units i.e., slaughterhouse, and poultry processing plants have implemented the Hazard Analysis and Critical Control Point (HACCP) in order to improve quality of products to comply with European Union standards. Moreover, there are more use of technologies and machines to increase quantity as well as relocate production base to countries that offer cheaper labor cost, especially CLMV group (Cambodia, Laos, Myanmar, and Vietnam). Now Thailand produces better quality poultry products compare to Brazil.

Chance

The positive economic growth in European Union, China, and Japan causes a higher demand of poultry products from Thailand especially in China as it mainly emphasizes on home markets and is open for poultry products produced by other countries. The demand of chicken and poultry products from Thailand tends to be in a good position as United Arab Emirates - the country that consumes most chicken in the world (Chummee, 2012), South Africa and Russia also import chicken from Thailand. However, Thailand is still facing some non-tariff barriers in exporting poultry products such as animal welfare, product standard and Halal standards.

In ASEAN, Thailand can export chicken and poultry products to member countries without paying tax due to the agreement under ASEAN Free Trade Area. In addition, Vietnam, Laos and Cambodia will reduce tax for chicken in 2013, 2015 and 2017.

Government policies

The launch of “Kitchen of the World” campaign in 2012 has stimulated industries in Thailand to be more competitive as well as ensure its trading partners of best product quality and hygiene. The government also reduces income tax rate from 30% to 23% in 2012 and 20% in 2013 (Manager online, 2013) which results in an increasing of production and investment. However, the 300 Thai baht labor fee and rice mortgage scheme has affected the price of raw materials in Thailand in both upstream and downstream companies.

Competitive advantage by Revealed Comparative Advantage (RCA)

According to the Revealed Comparative Advantage (RCA) analysis, Thailand is ranked number one in ASEAN and world's 4th in terms of export quantity and value. The country's competitiveness will be increased by a continuing improvement of products, market expansion and trust built with trading partners. However, Thailand still secures its competitiveness in poultry industry among Brazil, European Union, and the USA. Major customers that import chicken from above countries are South Africa,



Japan, European Union, United Arab Emirates and Hong Kong. Basically, European Union exports chicken among its members and import chicken from countries outside the economic bloc upon demand. Due to this fact, it is a mission for Thailand to start making market penetration to those countries.

CONCLUSION AND RECOMMENDATIONS

Poultry industries in Thailand are now profited from a relaxation of import regulation of some countries especially Japan and European Union. However, the country is still experiencing some tariff and non-tariff barriers in which companies and entrepreneurs must look through. Thailand also has some advantages over Brazil - world's major poultry producer in terms of product quality and export quota which affect in a more competitive pricing system. Thailand, therefore, is encouraging the use of technologies to increase production quantity with better quality over Brazil.

ASEAN is among potential markets for Thai poultry industry with a dynamic economic growth, a larger size of population, and a reduction of import tax to 0% in 2013. Thailand should address the ASEAN market more effectively as some countries in ASEAN such as Singapore, Vietnam, and Philippines still import poultry products from countries outside the bloc.

Recommendations to improve Thailand's poultry industry can be divided into 2 parts; one for public sector and the other is for government sector.

Public sector

1. Thailand should encourage the use of technology and machine to increase product quantity and reduce any mistakes caused by human. This will also reduce cost of labor. In addition, Thailand should support more research and development projects on poultry industry especially around food processing and develop product to "ready to cook and ready to eat" category.
 2. Thailand must expand market to potential countries i.e., United Arab Emirates, and Halal food markets within ASEAN such as Philippines, Singapore, and Vietnam.
 3. Thailand must establish the "Compartment" in every poultry farm and hatchery in order to be able to export chicken meat to European Union, Singapore including other farms in those countries that Thai companies have invested.
 4. Thailand must consider relocating or offshoring its production base to countries that offer lower cost of production. However, those farms must implement the same standard to ensure product quality. Moreover, poultry products are entitled for change of product nationality according to a global supply chain.
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5. Small-scale companies should initiate a co-operative, contract farming system or cluster to reduce production cost and eliminate risks relating to pricing system in order to compete with large-scale companies.

Small-scale companies should look for a new business opportunity by looking into a niche market e.g., organic chicken meat in order to make more profit and avoid intensive competition with large-scale companies.

Government sector

1. The government must build trust with trading partners by creating brand recognition and improving standards for Halal food to be compatible with Malaysia.
2. The government should negotiate with trading partners in order to eliminate tariff and non-tariff barriers and expand market as well as initiate business with new potential market such as Russia.
3. Thai government should encourage a cluster of chicken and poultry producers in ASEAN to compete with world's major producers. They must also support businesses in the whole supply chain at domestic and international level as well as provide in-depth information of international investment.
4. The government must ensure smooth and effective implementation of policies by setting up short, medium, and long plans.

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