

Improving the quality of goods transport (frozen chicken) For export to the Vietnam market

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Abstract

In this section, the objectives of this study are: 1. Analysis of the transportation situation (frozen chicken) for export in the Vietnamese market 2. Study of the transportation process (frozen chicken) for export in the Vietnamese market. This is a qualitative research. The key informants in the interviews are entrepreneurs/supervisors of Vietnamese export companies and 9 export-related individuals who are involved and have less than 5 years of experience in the frozen chicken industry. The tools used are structured in-depth interviews and content analysis. The results of the research found that the analysis of the transportation situation (frozen chicken) found that the transportation situation through Saigon Port in Ho Chi Minh City, which has driven Vietnamese government agencies to manage with awareness of the importance and increased use of ports, has resulted in delays in services.

In addition, transportation in the area has begun to experience traffic congestion in many channels. From the analysis of the management process of frozen chicken transportation, it was found that the Vietnamese market needs protection of frozen animals in all cases and product quality control. Transportation can use storage, packaging and transportation processes that must strictly comply with Vietnamese market measures because imported goods are subject to strict screening. The Vietnamese market group must be addressed and reduce trade barriers in terms of tariffs by maintaining the original market base and accelerating the opening of new potential markets, as well as building confidence in the standards and safety of chicken products by upgrading export standards, setting measures to control and prevent poultry diseases, developing chicken farm standards that cover labor issues, and promoting the development of technology, especially efficient temperature control processes in line with international standards.

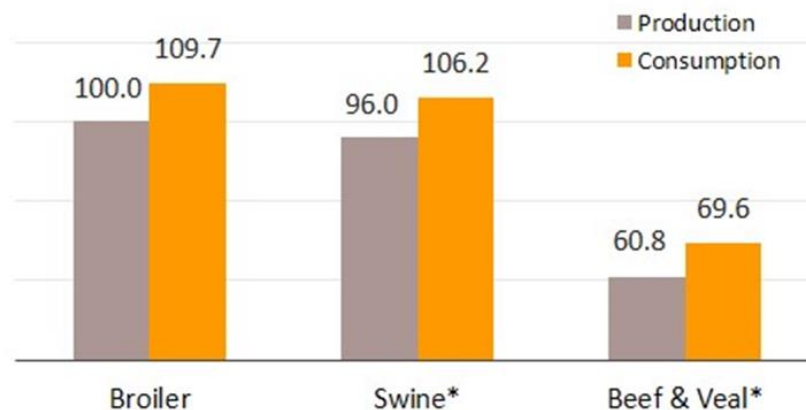
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1. Introduction

Chicken is the animal that provides the highest protein in the land meat group (pork and beef provide the second and third protein, respectively), is low in fat, and is one of the economic animals that provides a fast return because it takes less time to raise than other economic animals. It also has a high feed conversion rate and is resistant to disease. As a result, the production and consumption of chicken is higher than other types of meat. The

global chicken consumption rate is 14.8 kilograms/person/year, followed by pigs and beef at 11.1 and 6.4 kilograms/person/year, respectively (data from 2019). For chicken products for consumption, most are in the form of 1) chilled chicken, 2) frozen chicken, and 3) processed chicken or frozen cooked/seasoned chicken. Each product has a different production process, as follows:

Figure 1.1 Products have different production processes



Note : * Carcass-Weight Equivalent (CWE) is the weight of meat cuts and meat products converted to an equivalent weight of a dressed carcass. Includes bone, fat, tendons, ligaments, and inedible trimmings (whereas product weight may or may not).
Source : Forecast by U.S. Department of Agriculture (USDA), Krungsri Research

Source: Bank of Ayudhya Analysis, 2023

Chilled chicken: It is the storage of chicken meat at an average low temperature of 0 - 5 degrees Celsius. The product is in the form of whole chicken, meat pieces and eviscerated chicken. and other parts of chicken

Frozen chicken: is a food preservation at a temperature below 0 degrees Celsius. Products are in the form of whole chicken, pieces of meat and chicken offal, chicken cut into cubes and minced chicken, etc.

Processed chicken: end products that add value to chicken meat, divided into 1) processed chicken that is not cooked for consumers to cook as a final dish and 2) processed chicken products that are cooked or semi-cooked. Examples of products are in the form of grilled chicken legs, smoked chicken wings, chicken satay, chicken burgers, chicken nuggets, chicken steaks, karaage chicken, chicken meatballs, fried chicken and chicken marinated in sauce, etc.

In terms of export markets, Thailand exported fresh, chilled, frozen and processed chicken products by 7.5% (in volume) to a record high of 0.9 million tons and by 8.5% (in value) at 3.4 billion dollars, divided into frozen chicken, which increased by 12.6% to 310,000 tons and processed chicken, which increased by 5.3% to 590,000 tons, resulting from

(1) Bird flu continues to spread in Asia (especially China), the Middle East and Africa. This has led to a demand for chicken product imports from Thailand to replace the reduced production due to the destruction of infected chickens.

(2) China has significantly increased its chicken imports from abroad, including Thailand. As a result of bird flu and the severe outbreak of African Swine Fever (ASF), China has accelerated its chicken imports to replace the lost protein source. The Chinese government has issued certificates and registered 16 Thai chicken processing plants and factories. This is also a result of the countervailing tax measures between China and chicken exporting countries such as Brazil (from 2013-2016, China imported more than 50% of its total chicken products from Brazil) and the United States, which has increased opportunities for Thai entrepreneurs to expand their export markets to meet the demand for chicken meat from China. In 2019, Thailand exported chicken products to China at a record high of 77,000 tons (+259.6%), worth 2.2 billion dollars (+252.1%), making China the third largest export market for chicken products for Thailand[14], after Japan and the European Union. And

(3) The European Union has allocated additional import quotas for chicken and poultry from Thailand. It is expected that the demand for chilled, frozen and processed chicken will continue to grow in both the domestic and export markets, supporting business profit opportunities and benefiting broiler farms, especially those in the industry's supply chain. However, possible increases in production costs will put pressure on business performance. Frozen and processed chicken factories: Revenue is expected to continue to expand well in line with demand in the export market. In addition, Thai production has a strength in standard production processes, resulting in good profit margins amidst intense competition. Broiler farms: Demand for chicken meat consumption is expected to grow well, supporting business revenue, especially large farms that have advantages in economies of scale, good management systems, and a definite market, or farms that are in the supply chain of the frozen and processed chicken industry. Meanwhile, farms of small entrepreneurs may have more difficulty operating in terms of both standards and markets. Business risk factors come from fluctuating broiler production costs that may affect the profit margins of businesses, especially small ones (Analyst Bank of Ayudhya, 2023).

1.1 Research Objective

1. Analysis of the transportation situation (frozen chicken) for export in the Vietnamese market
2. Study of the transportation process (frozen chicken) for export in the Vietnamese market.

2. Methods

Qualitative research

Key informants in the interviews were 9 entrepreneurs/those involved in exporting, who were involved and had experience in the timber export business for less than 5 years. The key informants were determined using purposive sampling.

Qualitative tools included in-depth interviews, structured interviews, and qualitative data collection. The researcher's tools for data collection included a structured in-depth interview form, which is a set of questions set by the researcher as a guideline for interviews by recording and recording the interviews from the specified sample group of 9 people. The interview forms were then analyzed, summarized, compiled, and presented as research results.

Qualitative data analysis

This part of the analysis will use content-based interviews, including observation and interpretation of relationships, using a conceptual framework for data analysis to answer the

objectives, along with interviews with target groups and those with experience in the quality of goods transport (frozen chicken) for export. The obtained data will be analyzed and summarized using descriptive methods and verification of accuracy and directness according to the objectives.

3. Results and Discussion

The analysis of the current transportation situation (frozen chicken) found that the transportation situation is an important issue that both the government and private sectors of Thailand are jointly pushing forward with foreign countries such as Vietnam in every way. As a Thai government agency responsible for taking care of Thailand's interests in every dimension, it is focused on pushing this issue with local agencies at every level, from the Center for Disease Control and Prevention to local agencies in the district. The above actions have resulted in all organizations involved in management and control realizing the importance and urgency of allowing the transport of goods to resume at the first opportunity. The analysis of the process of managing the transportation of frozen chicken products in relation to shipping to increase transportation efficiency in all aspects found that from the analysis of the transportation situation and approval to import frozen products at the port in the past, the Department of Livestock Development organized a ceremony to launch a container ship loaded with frozen poultry products on its maiden voyage to Vietnam. On that day, the executives of the Department of Livestock Development revealed that the Office of Registration or Certification had announced certification for 7 Thai chicken meat production and processing plants to be able to export frozen chicken products to Vietnam. Initially, the Department of Livestock Development expected that it would be possible to export frozen chicken parts from Thailand to Vietnam. In addition, exporting frozen chicken parts from Thailand to foreign countries is not easy. If you want convenience and speed, you have to send it through Thai and Chinese entrepreneurs who have connections, but you have to pay a commission fee, which is the source of increased costs. The Thai government must report this to the government to solve the problem. Some frozen chicken exports in Thailand are still using the old system.

Analysis of the efficiency of improving the quality of goods transport (frozen chicken)

Improving the quality of chicken and the quality of various processes to create quality by analyzing as follows:

Strategy/Measures to push

1. Negotiate to resolve and reduce trade barriers, both tariffs and non-tariffs, both bilaterally and multilaterally.
2. Maintain the original market base, along with accelerating the opening of new markets with potential, and accelerating the inspection of the production supervision system/poultry factories of Thailand to be able to export according to the standards set by trading partners.
3. Maintain the image and build confidence in the standards and safety of Thai chicken products.
4. Promote the development of technology and use innovation to create added value and create product diversity, including creating differences from competitors.

4. Conclusion

The results of the Objective 1 analysis are consistent with the research of Isabel Knöbldorfer (2023) *Cheap chicken in Africa: do import restrictions benefit the poor?* European chicken exports to Africa have long been criticized for their negative impacts on local producers. However, while cheap chicken imports may affect African chicken farmers, these same cheap imports benefit African consumers and improve access to affordable nutrition. A few African countries have imposed import restrictions, but it is unclear how such policies affect different population groups and whether the potential benefits to farmers outweigh the overall social costs. We use nationally representative household data from Ghana and a partial equilibrium framework to model the household supply, consumption and overall welfare effects of two hypothetical policies: a 50% chicken import tax and a total import ban. Our results suggest that both policies would lead to increased domestic chicken prices, with negative consumption effects that far outweigh the positive supply effects. The average poor and non-poor household in rural and urban areas would suffer welfare losses from these import restrictions. While many households buy and consume chicken, only a few produce chicken and only a few sell chicken at market. The results indicate that chicken import restrictions are not a pro-poor, pro-welfare policy. To compensate the small number of households affected by low-priced chicken imports in particular, targeted assistance measures would make more economic and social sense than general import restrictions.

The results of the second objective analysis are consistent with the research of Bin Cui (2023) *"The cancellation of live poultry market trade policy in China: chicken consumption characteristics, decision-making behavior, and consumer cluster analysis."* When the avian influenza virus appeared, many cities in China periodically closed live poultry markets to restrict the trade of live chickens. This study investigated consumer decision clusters and consumption preferences. The data from 1,108 participants were collected in May 2021 in Jiangsu Province using a mixed random sampling method. Eight decision-making behaviors were identified using exploratory factor analysis. Five consumer clusters were identified using K-Means cluster analysis. Chi-square tests and pairwise multiple rate comparisons were used to identify the differences in consumption preferences between consumer clusters. The results show that concerns about the risk of avian influenza virus infection alone may not be able to effectively change consumers' preferences for live chickens and their patronage of fresh markets and farms. Product quality, consumer habits and loyalty, limited knowledge and technology, and the leisure elements of visiting farms are obstacles to changing consumer preferences. Effective policies are needed to help customers overcome the barriers to purchasing chilled and frozen chickens.

Aunyawong W. (2019) says The results found that organisational driving forces and transportation practices during the COVID-19 crisis have typically affected sustainability supply chain performance. In addition, the mediation effects of transportation practices during the COVID-19 crisis have unveiled partial mediation in the presence of a direct effect. The qualitative study was found to be consistent with the quantitative method findings from the logistics industry-specific contexts.

5. Suggestions

Suggestions for this research

1. The transportation factors of entrepreneurs should have standards to support the export of frozen chicken. This is to allow entrepreneurs to prepare and check documents for easier transportation.

2. In terms of packaging or temperature control during transportation, the temperature must be maintained consistently. Because the management of shipping takes a long time, shipping companies and related agencies must maintain the quality of the products throughout the transportation.

Policy recommendations

1. Negotiate to resolve and reduce trade barriers, both tariffs and non-tariffs, both bilaterally and multilaterally.

2. Maintain the original market base, along with accelerating the opening of new markets with potential, and accelerating the inspection of the production supervision system/poultry factories of Thailand to be able to export according to the standards set by trading partners.

References

- Bracken., A. (2022). Analysis of Dementia Impact Factors 2022-2023 Analysis, Trend.
- Cui., B. (2023). Phasing out live poultry market trading policy in China: characteristics of chicken consumption, decision-making behavior, and consumer cluster analysis. *Journal of Consumer Protection and Food Safety*, 18, 1–81.
- Food Institute. (2023). Thai chicken exports in '22 to FTA grew 15.9%, money spread over 2.8 billion dollars.
- Knöbldorfer., I. (2023). Cheap chicken in Africa: Would import restrictions be pro-poor?. *Food Security*, 15, 791–804.
- Krungthep. (2023). Agricultural Outlook Chicken exports start the year positively.
- Ruangsrirroj., T & Donkhwa., K. (2020). Factors Enhancing the Influence of Service Quality on Road Freight Service Efficiency of Logistics Service Providers: Factors Enhancing the Influence of Service Quality on Road Freight Service Performance of Logistic Service Providers. *Journal of Research Community of Nakhon Ratchasima Rajabhat University*, 14(2), 57-68.
- Thipaha., S. (2019). Decisions on transportation service selection based on marketing mix principles: a case study. Compare Thailand Post and Kerry Express in Nakhon Pathom Province.
- Vadee, T., & SURARAKSA, J. (2022). EVALUATION OF FACTORS FOR TRANSPORTATION SERVICE PROVIDERS SELECTION CONSIDERING SUSTAINABILITY.
- Vichaidith., C. (2022). Factors Affecting Frozen Food Consumption Behavior of Working Age Population in Pathumwan District, Bangkok. *Journal of Business Administration and Innovation Rajabhat University (JBI)*, 2(1), 49-64.

- Waekklaihong., K. (2022). Tourism Management and Tourism Logistics To increase competitiveness in the tourism industry of Thailand. Thesis Master of Management (Integrated Tourism and Service Management), National Institute of Development Administration.
- Wen., X. (2023). The Contribution of Chicken Products' Export to Economic Growth: Evidence from China, the United States, and Brazil. *Sustainability* 2023, 11(19), 1-16.
- Aunyawong W. (2019). The Mediating Role of Transportation Practices during the COVID-19 Crisis in Thailand. *The Open Transportation Journal*. 15(1). 170-181