

This file has been cleaned of potential threats.

If you confirm that the file is coming from a trusted source, you can send the following SHA-256 hash value to your admin for the original file.

4938bca0759225b86fb341b5916241e1f451c3d7738b6d4452776daa1be627f9

To view the reconstructed contents, please SCROLL DOWN to next page.

# THE CRITICAL SUCCESS FACTOR OF FRUIT DISTRIBUTION: CASE STUDY OF RATCHABURI PROVINCE, THAILAND.

**Phutthiwat Waiyawuththanapoom\* and Pimploi Tirastittam \*\***

College of Logistics and Supply Chain, Suan Sunandha Rajabhat University  
111/3-5 Phuttamonthon District, Nakhon Paththom, Thailand 73170

Email: [phutthiwat.wa@ssru.ac.th](mailto:phutthiwat.wa@ssru.ac.th)\*

College of Innovation and Management, Suan Sunandha Rajabhat University  
1 U-Thong Nok Road Dusit Bangkok, Thailand 10300<sup>[b]</sup>

E-Mail: [pimploi.ti@ssru.ac.th](mailto:pimploi.ti@ssru.ac.th)\*\*

## ABSTRACT

Thailand is the agriculture country which mainly export the agriculture product to the other countries in so many ways which are fresh vegetable, chilled vegetable or frozen vegetable. The gross export for Thailand's fruit is more than 30-40 billion baht per year and the growth rate is about 11-15 percent per year. Fruit is the most important export product of Ratchaburi province. This research paper is aimed to study the factors which affect the efficiency of the supply chain process especially the distribution process of Ratchaburi's fruit product. There are 5 factors which related to the distribution fruit which are quality, price, equipment and supply standard, custom process and distribution pattern. The result of the research showed that the factor which reached the "Very Good" significant level is quality of the fruit itself with the score of 4.79. The other 5 factors are in the "Good" significant level. So the most important factor for fruit distribution is the quality of the fruit product in both farmer and distributor point of view.

**Keyword:** Critical Success Factor, Distribution, Ratchaburi Province, Supply Chain.

## INTRODUCTION

Thailand has a favorable weather condition and productive land for the cultivation of tropical and sub-tropical fruits. Therefore, it is famous for its tropical fruits that are tasty, flavorful and of good quality such as durian, mangosteen and rambutan. In Asia, Thailand is the main supplier and exporter of various fresh fruits, especially tropical fruits such as durian, guavas, mangoes, mangosteens, bananas, oranges, rambutans, coconuts, and lychee. The major exporting countries for tropical fruits are China and neighboring Asian countries. The cooler climate fresh fruits are imported from China, New Zealand, the United States, Australia, Japan, South Korea, Chile, and South Africa. There are many kinds of high quality fruits in Thailand. Moreover, the fruit markets are strong and there are high demands in the international markets. It can generate high export incomes which accounts for over 301.75 million USD per year.

Therefore, the Ministry of Commerce set up the plan to invest a large amount of capital in the growing fruit export market. This is intended to find a broader market before the fruit supply increases. The ministry collaborated with many agencies and consultants to set up the policy to promote the export of high demand fruits. Many farmers have shifted to growing durian and longan fruits instead of growing rubber because of the higher prices of

those fruits. Therefore, fruit Supply may increase into the markets during the coming few years. The increase of fruit supply in the market can contribute to the decline of fruit prices. The government implements good supply management to avoid the drop of fruit prices during the harvesting period. For instance, the price of durian was still high although there is increased supply in the market. This is because the government implemented durian buffet campaigns in the major tourist places of Thailand to attract tourists to try Thai fruits. Moreover, the government and the private sector made a promotion of durian in major department stores to increase the market channels. According to the Ministry of Commerce, Thailand can generate the export value of fresh and processed fruits which account for 360.89 million USD in 2016.

Ratchaburi Province is one of the western provinces of Thailand. The neighbouring provinces are (from north clockwise) Kanchanaburi, Nakhon Pathom, Samut Sakhon, Samut Songkhram and Phetchaburi. In the west it borders the Tanintharyi Region of Myanmar. Ratchaburi is 80 kilometres west of Bangkok and borders Myanmar to the west with the Tenasserim Hills as a natural border. The Mae Klong flows through the centre of Ratchaburi town. Fruit is one of the most important product of the province and there are lots of distribution activities in the province every day. So the researcher wants to identify the critical success factor of the fruit distribution process in the Ratchaburi province in order to find the critical factor and trying to improve the distribution process in Ratchaburi province for the future.

## **RESEARCH OBJECTIVE**

1. To study the process of fruit distribution in Ratchhaburi province, Thailand.
2. To identify the critical success factor of the fruit distribution in Ratchhaburi province, Thailand.

## **LITERATURE REVIEW**

### **Supply Chain Management Definition**

There are so many definition of supply chain management such as Supply chain management encompasses materials/supply management from the supply of basic raw materials to final product (and possible recycling and re-use). Supply chain management focuses on how firms utilize their suppliers' processes, technology and capability to enhance competitive advantage. It is a management philosophy that extends traditional intra-enterprise activities by bringing trading partners together with the common goal of optimization and efficiency, Network of organizations that are linked through upstream and downstream network, in the different processes and activities that create value in the form of products or services for the ultimate consumer. But for the fresh vegetable supply chain definition there still have no specific definition for. This research is based on the supply chain definition not by the fresh vegetable supply chain definition.

### **Logistics Definition**

The logistics management can be defined in so many definitions such as it is one of the supply chain management components which related to the customer demand through the planning, control and implementation of the effective movement and storage of related information, goods and services from origin to destination. It also helps the companies to increase the efficiency by reduce the cost and improve the customer service. It always begins from the supplier's side which is the beginning of the supply chain, then continue to the consumer's side in the final stage of delivering the goods to the consumers.

## Related Research

There was a research which tried to present the effective factors on increasing the export from the standpoints of the Iranian exporters under a model. Finally, four main factors influence exports which are: Individual factor (education, experience, export knowledge, public communications), economical factor (export markets, governmental subsidies, export pricing, export marketing), environmental factor (rules and regulations, culture, technology, informal communications, political factor) and product marginal factor (design and packaging, quality of products, guarantee and after-sell services, distribution canals, products' brands). The analysis of the results shows that among the effective factors on increasing the export from the standpoints of exporters in the environmental factor (rules and regulations, culture, special communications, technology, political factor), product marginal factor (guarantee and after-sell services, distribution canals, quality of products, brand, design and packaging), individual factor (public communications, export knowledge, education, working experience), economical factor (export marketing, governmental subsidies, export pricing, export markets) are important and effective respectively.

There was a thesis which purpose to examine issues related to the key factors an olive oil company, especially a Greek one, should take into consideration in order to succeed in the field of exports. Towards this purpose, many firms, regardless of their size and the country of origin, are examined, thus, helping the reader to obtain, as much as possible, an objective opinion about the industry. A PESTEL, Porter's five forces analyses are performed and useful outcomes are presented. In conclusion, the remarkable results which will assist the potential scholar or reader to have a clearer picture about the factors that lead an olive oil company to succeed as well as those that give the Greek olive oil to a leading position in the market. Furthermore, the results of the research also support the findings of other studies mentioned in the literature review sector which they can definitely be of interest and potential value to the stakeholder in the olive oil industry such as the producer, processor, importer, exporter and etc.

There was a drawing on the internationalization process model and organizational learning theory and find that there is an emphasizing international sales along with the restriction in the exporting to a few foreign markets. Those results in superior had perceived export performance for the sample of small firms from Greece and several other Caribbean countries. As there was an attempt to emphasize the international sales while focusing on a few markets, there was an effort and opportunity to enabling the small firms to develop expertise in those markets and also build strong distribution networks to manage the export activities effectively.

There was a paper which analyzes the main factors of success in exporting tomatoes to Japan based on a survey of local produce distributors in Korea. After making a hypothesis that the main factors are commercializing process, marketing ability, and government grant, a survey of tomato exporters was conducted. Based on the hypothesis, a factor analysis was conducted and its suitability was statistically verified. According to the results of the analysis, where three factors were extracted from ten variables used to analyze the main factors, the degree of explanation was found to be 61.4%. Factor 1 was placed under the category of systematization, production scale-up, and marketing, which entails continuous securing of export supplies, systematization and production scale-up, finding buyers, and finding out the preference of consumers overseas. Factor 2 was classified under the category of export commercializing process that includes safety management, selection of fruit varieties, developing manuals on cultivation technologies, commercialization, and standardization of distribution system. Lastly, Factor 3 was placed under the category of government grant, which entails the grant of price difference and distribution cost.

In Thailand, the vegetable production is essentially a small-farm venture that benefits thousands of families in the urban area, semi-urban and rural communities. However, in the last decade, the cost of production is rising respectively and one of the reasons is the chemical or pesticide usage is increasing. Even though the using of chemical pesticide endangers the health of consumers and pollute the environment, there are some farmers which consider the benefit of the chemical pesticide is acceptable and still use it. Nowadays, Thai agriculture has been suffered from problems linked to the high external input system as the awareness of problems linked to high-input agriculture is increasing, those stakeholders such as politicians, NGOs and farmers are searching for alternatives way to create the clearer path for them. As the result, the popularity of the organic agriculture in Thailand has increased which is a resulted from a combination of three major trends which are the increasing public aspiration for healthy living, the development of sustainable agriculture in response to the crisis in the agriculture sector and lastly, the rise of environmental awareness, and pollution caused by use and misuse of agro-chemicals. The research was objected to understand the existing situation of Thai organic farming and also extend to the key success factors on the organic vegetable system in Thailand. The data were collected from the farmers and processors/handlers. The semi-structured interview and observation were used to collect the data while the empirical and documentary analyses were applied in this research too.

As the result, there are findings which revealed that organic vegetables are mainly leafy vegetables, especially the salad type, Chinese vegetables and premium crops such as asparagus and baby corn because of the pricing of the vegetable and its selling price of them is quite high compare to the other vegetable. The empirical study showed that there are 3 types of the organic vegetable producers which are commercial family farms, farmer groups with contract farming and large-scale corporate farms. In conclusion, the key success factors and important techniques of organic farming are practiced with implicit knowledge from the elder of the family. The practices start from the process of the ecosystem preparation and input the nutrient into the soil, during planting, crop maintenance with the system of food chain, and harvesting. The practice is need to be created from the breakthrough idea from the farmer while the market access with simple post-harvest at farm level conduct to longer shelves life of the organic vegetable and good quality produces are essential.

## **RESEARCH MEDTHOD**

This research is the descriptive research and exploration research which is objected to find the key critical success factor of fruit distribution in Ratchhaburi province, Thailand. The populations for this research are 132 stakeholders of fruit farmer and distributor in Ratchaburi province.

In this research, the fixed-response interview is used. The populations of this research are 132 stakeholders of fruit farmer and distributor in Ratchaburi province. The question in the interview is developed by study the related information of the objective and literature review then created the drafted question in the interview and sent to the 2 veteran researchers for correction. The interview question can be divided into 2 parts which are the general information and the research question.

## Statistics Tools in Analyzing the Data

Mean is the sum of the data from the evaluation process and divided by the number of the sample as the equation 1

$$\bar{X} = \frac{\sum X}{N} \quad (1)$$

Assuming

$$\begin{aligned} \bar{X} &= \text{Mean of the evaluation} \\ \sum X &= \text{Sum of the evaluation result} \\ N &= \text{Number of the system user} \end{aligned}$$

Standard Deviation is the value which shows how much variation exists from the average as the equation 2

$$\text{S.D.} = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} \quad (2)$$

Assuming

$$\begin{aligned} \text{S.D.} &= \text{Standard Deviation} \\ X &= \text{Result of the evaluation} \\ \bar{X} &= \text{Mean of the evaluation} \\ N &= \text{Number of the system user} \end{aligned}$$

## RESEARCH RESULTS

### Critical Success Factor for Farmer

In this research, there are several factors which probably related to the success of fruit distribution in Ratchaburi province, Thailand which are quality, price, equipment and supply standard, custom process and distribution pattern. These factors were proved by the questionnaire that they are all important to the distribution process. But the most critical success factor for the production stakeholder is the quality of the Ratchaburi province's fruit with the score 4.90 and the other 4 factors get the good score.

### Critical Success Factor for Distributor

As there are several factors which related to the success of fruit distribution in Ratchhaburi province, Thailand which are quality, price, equipment and supply standard, custom process and distribution pattern. But the most critical success factor for the production stakeholder is the quality of the Ratchaburi province's fruit distribution with the score 4.78 and the other 4 factors which are price, equipment, custom and distribution pattern received the good score.

## CONCLUSION

As from the result section, the most critical success factor of fruit distribution in Ratchaburi province, Thailand is the factor of the quality of the fruit that is being distribute. Because the quality of the fruit is the main reason that the condition of the fruit when finished the distribution is but this is not mean that the other 4 factors are not important because the other 4 factors receive a “Good” level score from both production side and exporter side. This should be study further to ensure and

## REFERENCE

- [1] H. E. Win, “Analysis of Tropical Fruits in Thailand”. FFTC Agricultural Policy Articles, 2017
- [2] Tourist Authority of Thailand, “Ratchaburi”, 2015
- [3] Z. Xiang, K. Wöber, and D.R. Fesenmaier, “Representation of the online tourism domain in search engines”. *Journal of Travel Research*, vol.47, no. 2, pp. 137–150. 2008.
- [4] M. Christopher, *Logistics and Supply Chain Management*. Pitman Publishing, London. 1992.
- [5] W. Sutthachaidee, *Logistics management of coconut-shell products manufacturing: a case study of Samut Songkram Province, Thailand*, *Actual Problems in Economics*, vol. 183, pp.161-166, 2016
- [6] S. Farokhian, T. Sadeghi, and R.K. Esmaili, “The Effective Factors on Increasing the Export from the Iranian Exporters' Standpoints”, *Asian Journal of Business Management Studies*, vol.1, no.2, pp. 26-29, 2010
- [7] S. Fotiadis, *The key success factors of exporting: The case of Greek Olive Oil and Olive Products*, (Unpublished work style),” unpublished.
- [8] L.E. Brouthers, G. Nakos, J. Hadjimarcou, and K.D. Brouthers, *Key Factors for Successful Export Performance for Small Firms*, *Journal of International Marketing*, vol.17, no.3, pp. 21-38, 2009.
- [9] B.O. Choi, *An Analysis of Critical Success Factors in Export of Tomatoes to Japan*, (Unpublished work style),” unpublished.
- [10] P. Pornpratansombat, and S. Thaipakdee, “Key Success Factors of the Organic Vegetable Production System in Thailand,” in *World Food System — A Contribution from Europe*, Zurich, 2010