



**AN ANALYSIS OF COMPETITIVENESS OF
THAI RICE EXPORT**



**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION
GRADUATE SCHOOL OF BUSINESS
SIAM UNIVERSITY
2018**



**AN ANALYSIS OF COMPETITIVENESS OF
THAI RICE EXPORT**

**THEMATIC CERTIFICATE
To
MA JIACHENG**

This independent study has been approved as a partial Fulfillment of the Requirement of International Master of Business Administration in International Business Management.

Advisor:Date:...../...../.....

(Doctor Chai Thanichanun)

(Associate Professor Dr. Jomphong Mongkhonvanit)
Acting Dean, Graduate School of Business Administration

Date.....20...../.....06...../.....18.....

Siam University, Bangkok, Thailand

**AN ANALYSIS OF COMPETITIVENESS OF
THAI RICE EXPORT**

ABSTRACT

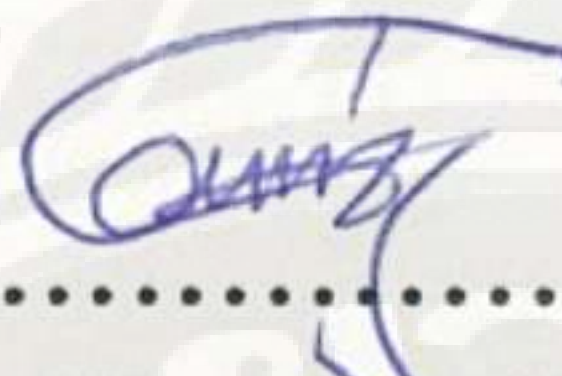
Title: **AN ANALYSIS OF COMPETITIVENESS OF THAI RICE EXPORT**

By: MA JIACHENG

Degree: Master of Business Administration

Major: Business Administration

Advisor:


.....
(Doctor Chai Thanichanun)

Thailand is the world's largest rice producer and exporter since the 1960 s, Thailand has been occupying the position of the world's largest rice exporter. Due to the face that rice is the major agriculture product of Thailand as it's the staple food for Asian people and Thailand's main export of agricultural products. Therefore, the study of Thai rice export competitiveness is important to maintain and improve Thai rice.

In view of the present situation of the export competitiveness of Thailand rice is declining, Thailand rice export competitiveness as the research object, using quantitative analysis of comparative advantage of explicit theory, are analyzed by using the year 2004 to 2012 the annual. Lastly is to conclude the basis of export competitiveness analysis, put forward the measure of Thai rice export competitiveness and the suggestions, meanwhile to point out that should avoid the adverse factors.

The findings indicated that Thai's export is remaining on the competitiveness in the global market to a certain frontier, except the competitors are gradually increased, due to the Thai's prices is slightly higher than the others, sort of the market share is gradually decline. The export competitiveness at the various threats, including the pledged project policies put forward by the Thai government to export. As the suggest, Thai's government should cooperate with the local exporters to solve the current situation to maintain the exporting rice position on the global ranking, and how to attaches great importance to the role of government policy, enhancing the added value of the rice, making effective marketing strategy, strengthen the national market and expand new markets.

Key Words: International Trade; Competitiveness; Comparative Advantage

摘 要

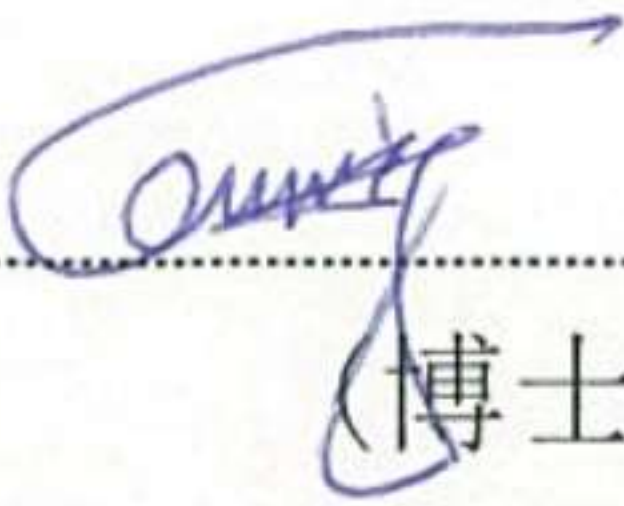
题目： 泰国大米出口竞争力分析

作者： 马嘉成

学位： 工商管理硕士

专业： 工商管理

导师：


(博士. Chai Thanichanun)

泰国是世界著名大米生产国和出口国，从 20 世纪 60 年代起，泰国就一直占据着全球最大大米出口国的位置。大米是泰国最主要的农产品之一，它是亚洲人的主食同时又是泰国的主要出口创汇农产品。但是长期以来，泰国粮农的利益却得不到有效的保障。使泰国大米出口竞争力受到一定削弱。因此，如何保持、提高泰国大米在出口竞争力的研究具有重要现实意义。泰国出台了一系列的保护粮农利益的政策。

针对泰国大米出口竞争力不断下降的现状，以泰国大米出口竞争力状况为研究对象，运用定量分析用显性比较优势的理论，通过使用 2004 年到 2012 年的年度进行整理分析。在出口竞争力分析的基础之上，提出提升泰国大米出口竞争力的措施与建议，同时指出应该避免的不利因素的影响。

分析后结果表明泰国大米出口在国际市场上有一定的竞争力，但是竞争国正在逐渐增加，由于泰国大米价格比其他出口国的价格高，泰米出口的市场份额逐渐下降。泰国大米出口的竞争力面临这多方面的威胁，其中就包括泰国政府提出的典押政策对泰米出口的不利影响。为了使泰国能保持国际大米出口第一国的位置，泰国政府应与大米出口商合作、重视政府政策的作用、提高稻米附加值、制定有效营销策略，巩固全国市场和扩大新市场。

关键词：国际贸易；竞争力；比较优势

ACKNOWLEDGMENTS

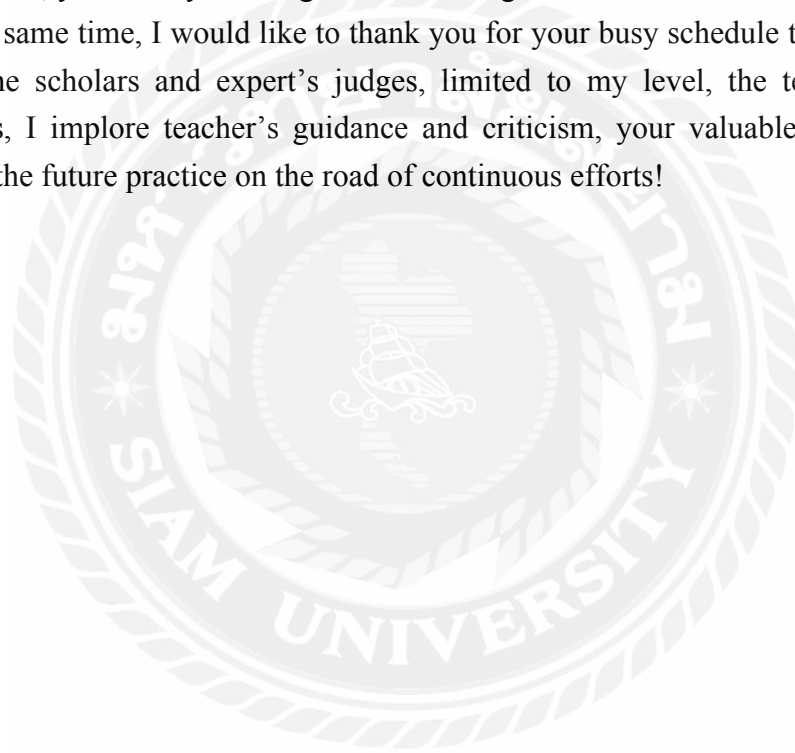
Thanks to the guidance of the teacher meticulous guidance and help, let me in the heavy work can successfully complete the thesis; will learn theoretical knowledge and the industry and enterprises in depth to explore feasible solutions.

Thanks to the support and help of every teacher at the MBA center of Siam University, your instruction and help have made me feel the professionalism of "preaching, tuition and FAQ" in Thailand.

Thanks to all the students at the University of Siam MBA, it is a great honor for me to be with you and to be with you so that I can feel the warmth of my family.

I am more grateful to my family in my study period of no resentment and no regrets support, you are my learning and the driving force of the forward.

At the same time, I would like to thank you for your busy schedule to review my thesis of the scholars and expert's judges, limited to my level, the text of many deficiencies, I implore teacher's guidance and criticism, your valuable advice will spur me in the future practice on the road of continuous efforts!



CONTENTS

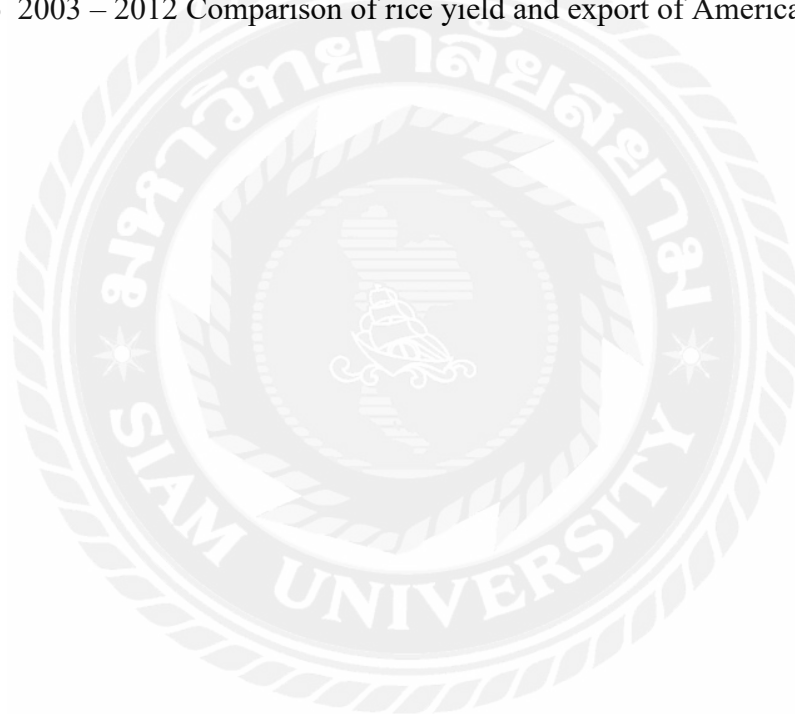
| | |
|--|-----|
| ABSTRACT..... | i |
| ABSTRACT-CHINESE | ii |
| ACKNOWLEDGMENTS | iii |
| CHAPTER 1 INTRODUCTION | 1 |
| 1.1 Project background and research purpose and significance..... | 1 |
| 1.1.1 Project background..... | 1 |
| 1.1.2 Research purpose | 2 |
| 1.1.3 Significance of the research | 2 |
| 1.2 Domestic and foreign research status summary..... | 2 |
| 1.2.1 Overseas research status summary..... | 2 |
| 1.2.3 Comparative analysis of domestic and foreign research..... | 7 |
| 1.3 Research content and methods..... | 8 |
| 1.3.1 Research content..... | 8 |
| 1.3.2 Research method | 9 |
| CHAPTER 2..... | 10 |
| THEORY REFERENCE ON EXPORT COMPETITIVENESS..... | 10 |
| 2.1 The concept of export competitiveness..... | 10 |
| 2.2 The theoretical basis of export competitiveness | 10 |
| 2.2.1 Theory of comparative advantage..... | 10 |
| 2.2.2 Theory of absolute advantage | 11 |
| 2.2.3 The law of comparative advantage | 11 |
| 2.2.4 Theory of reciprocal demand | 11 |
| 2.2.5 Opportunity cost..... | 11 |
| 2.2.6 Heckcher-Ohlin theory..... | 11 |
| 2.2.7 National competitive advantage diamond theory..... | 12 |
| 2.3 Factors influencing export competitiveness..... | 13 |
| 2.3.1 National competitive advantage diamond theory..... | 13 |
| 2.3.2 IMD international competitiveness evaluation | 15 |
| CHAPTER 3..... | 16 |
| ANALYSIS OF THE COMPARATIVE ADVANTAGE OF THAI RICE EXPORT..... | 16 |
| 3.1 Status quo of world rice | 16 |
| 3.1.1 Production countries..... | 16 |
| 3.1.2 Trade | 16 |
| 3.1.3 Price..... | 17 |
| 3.2 Export status quo of Thai rice | 18 |
| 3.2.1 Production of rice..... | 18 |
| 3.2.2 Thai rice export | 20 |
| 3.2.3 Competitors of Thailand rice export | 24 |
| CHAPTER 4..... | 29 |
| THE ADVANTAGE AND DISADVANTAGE ON COMPETITIVENESS OF THAI RICE EXPORT | 29 |
| 4.1 SWOT analysis of Thai rice export competitiveness..... | 29 |
| 4.1.1 Internal strengths (S)..... | 29 |

| | |
|---|----|
| 4.1.2 Internal weaknesses (W) | 31 |
| 4.1.3 External opportunities (O)..... | 33 |
| 4.1.4 External challenge (T)..... | 35 |
| CHAPTER 5..... | 37 |
| POLICIES OF IMPROVING THE EXPORT COMPETITIVENESS..... | 37 |
| 5.1 Thailand rice management policy | 37 |
| 5.2 Thai rice international market policy | 38 |
| 5.3 Thailand rice export development policy..... | 40 |
| CONCLUSION | 42 |
| REFERENCES..... | 43 |



List of Table

| | |
|--|----|
| Table 2-1 Production factors | 14 |
| Table 3-1 2008 - 2012 rice export of world exporter | 17 |
| Table 3-2 2008 – 2012 Thai rice yield | 18 |
| Table 3-3 2004 - 2012 volume and value of Thai rice export | 18 |
| Table 3-4 2004 - 2012 Average value of exports of rice of different kinds in Thailand..... | 19 |
| Table 3-5 2004 – 2012 Thai scented rice export volume and value..... | 19 |
| Table 3-6 2004 – 2012 Export volume and value of white rice in Thailand | 20 |
| Table 3-7 2004 – 2012 Comparison of import volume to America | 21 |
| Table 3-8 2004 - 2012 Comparison of import volume to China | 21 |
| Table 3-9 2004-2012 Rice import of Iran..... | 22 |
| Table 3-10 2004-2012 Rice import of Philippines | 23 |
| Table 3-11 2003 – 2012 Comparison of rice yield and Export of Vietnam | 25 |
| Table 3-12 2003 – 2012 Comparison of rice yield and export of China | 26 |
| Table 3-13 2003 – 2012 Comparison of rice yield and export of America | 27 |



AN ANALYSIS OF COMPETITIVENESS OF THAI RICE EXPORT

CHAPTER 1 INTRODUCTION

1.1 Project background and research purpose and significance

1.1.1 Project background

Rice is the main agricultural product of Thailand that is also the main food of Asian and the main agricultural product that Thailand exports. Thailand is one of the big famous rice production and export countries. Thailand became the biggest rice export country since 60s of last century with 18.9 million tons annual export gaining Thailand the tile of Southeast Asia Granary. Thailand is of tropical climate that is biannual rice producing area. With the expansion of producing area, the yield increases continuously. Currently Thailand has become the biggest rice export country. Nowadays, the export of Thai rice is being seriously challenged. Besides the natural causes the main reason is other country is competing with Thailand on rice export. By the year 2012, the international rice market price is relative stable while the price advantage of India is obvious, who is the main competitor of Thailand on rice export. Vietnam has price competitiveness too. Taking positive measures, India has grasped big portion of market share of Thailand worldwide especially market share in Africa and Bangladesh. The competition had resulted slight price fluctuation forcing the biggest rice export country Thailand has to reduce the export price to face the competition. In recent years Thai rice has gained good international market reputation with excellent quality. Regarding to the rice competitor producer, the International Rice Research Institute (IRRI) noted that Vietnam has exported 7 million metric tons of rice for the past three years, rising from 6.734 million metric tons in 2009. Rice is a major export crop and one of the fundamental elements of the Vietnamese economy. The Vietnamese government is heavily involved in rice production and export, including setting prices and export rates and stockpiling rice for domestic use. This means that rice in Vietnam, also a major domestic food crop, is treated differently than in Thailand. The growing presence of Vietnam in the global rice export sector and in China especially, poses a substantial challenge to Thailand's position in the Chinese import market. However the sales turnover dropped downward due to the drastic rice export market competition making the number one position of Thailand on rice export being challenged again. The production of Thai rice production is also challenged due to lack of rainfall reducing the planting area. The price fluctuation, international competition, reduction of production altogether makes the rice export prospect not positive. With the economy

globalization, the international competition becomes fiercer. International economy globalization is the world economy development trend that no country can stay outside of the world market, every country or area need some raw materials provided from the world market or want to sell their products to the world market frequently. (Pruettichat, 2016)

1.1.2 Research purpose

This article gets conclusion of the main factors causing Thai rice losing competitiveness on global market by deep analysis of the export competitiveness of Thai rice. The article also provides effective solution to change the negative factors of Thai rice export by export competitiveness comparison of Thailand, India and Vietnam etc. therefore to find solution to improve the rice export competitiveness for Thailand.

1.1.3 Significance of the research

The research of the current problem of Thai rice export is helpful to analyze deeply the current rice export advantage and existing problem so as to find better and more effective solution to improve the rice export competitiveness of Thailand. In the times of economy globalization, the rice export of Thailand encounters quite several competitors that are strong competitors. Facing the more and more drastic competition, to take which kind of positive measure to improve the rice international competitiveness is a very challenging and meaningful question and political question to the intelligent tank and decision makers. Both the expansion of rice exports and the threat and challenge of rice export from other countries at home and abroad are inseparable from the increase in the international competitiveness of Thai rice. If Thailand is unable to make progress in this area and cannot effectively improve the international competitiveness of rice, the sustainable development of rice production and exports in Thailand will be seriously affected, thus causing a significant negative impact on the further development of the Thailand economy. How should Thailand improve the competitiveness of rice exports and what adjustments should be made to the domestic and foreign policies in the face of fierce competition? To what extend Thai rice exporter will improve the competitiveness of Thai rice exporters in the Chinese market and importantly. How to improve the production process of rice etc., the further understanding and research of these policies and measures is beneficial to the further sustainable development of Thailand's economy.

1.2 Domestic and foreign research status summary

1.2.1 Overseas research status summary

As early as the middle of the seventeenth century, Adam Smith first proposed the

Theory of Absolute Advantage in his book "The Wealth of Nations". Adam Smith is a representative of the British classical school of economics. Also known as the originator of economics. It has an important guiding role in the development of economics, and the theory of absolute advantages has also laid the foundation for the emergence of international trade. The connotation of the absolute advantage theory refers to the difference in production advantages among countries caused by absolute differences in labor productivity in the process of producing the same products. Adam Smith believes that "absolute differences in production technology are the main causes of absolute differences in labor productivity and production costs.

David Ricardo put forward the "comparative cost theory" in his book "Principles of Political Economy and Taxation" published in 1818th century. The core of the book is The Law of Comparative Advantage. It is a further inheritance and improvement of Adam Smith's theory of absolute superiority, and it has become a classic of classical international trade theory. Ricardo's principle of comparative advantage states that in addition to the technical differences, there are also other factors that make up the foundation of international trade, which in turn leads to countries having comparative advantages in different products, making it possible to create internationalization and international trade.

In 1844, John Stuart Mill put forward the theory of "relationship of reciprocal demand" for the first time in the "Principles of Political Economy". This theory mainly refers to the fact that the price of a commodity is determined by the relationship between supply and demand. Explain the ratio of international commodity exchange from the value of supply and demand. Although, Muller explained the range of benefits brought by international trade for both parties.

Gottfried von Haberler first proposed the Opportunity Cost concept in the book "The Theory of International Trade". Von Hauber is a new Austrian school representing the figure and re-elaborating the comparative cost theory with the concept of opportunity cost is the continuation and development of Ricardo's comparative cost theory.

The Heckcher-Ohlin Theory is the factor endowment theory. The creators of the theory are Alberti Ohlin and Bertil Ohlin by Samuelson finishing and processing on its basis. In Heckler's book "The Role of Income from the Distribution of International Trade" in 1919, he first put forward the view that the condition of factor ownership influences comparative advantage, and his student, Olin, puts forward the theory of factor endowment under Hechsell's guidance. Heckscher-Ohlin theory, founded on the theory of factor endowments, and then opened the modern theory of international trade.

Michael E. Porter, a professor at Harvard Business School and known as the Father of competition strategy, his main books *"Competitive Strategy"*, *"competitive advantage"*, *"national competitive advantage"*, had been translated multilingual, and is deemed as the competition trilogy by professionals. The theory of national competitive advantage was first found in the book "National Competitive Advantage" in 1990. The theory explains the competitive advantage using the diamond system, which covers the four aspects that are production factor, demand condition, relevant industry and supportive industry, enterprise strategic environment as four basic factors, and also covers both the opportunity and the government auxiliary factors, then become the interaction system.

In his "Measurement and Theoretical Study of China's International Competitiveness" published by Zhou Wei in 1999, the indicators of China's 1965 to 1995 nearly 30 years were used to carry out a comparative advantage (RCA) of international competitiveness. Nine industries including food, chemical, raw materials, materials manufacturing, and small commodities have been compared and analyzed for their international competitiveness. It is proposed to increase investment in the R&B industry through the state, continue to develop endogenous technologies, conduct comprehensive technological transformation and innovation, establish a certain range of currency values, and establish a good innovation mechanism.

To analyze the current situation of our country's foreign trade in Shandong Province, "Analysis of foreign trade in Shandong Province and countermeasures," a text, the selected mechanical and electrical industries, agricultural products and textiles, as these industries face the impact of internationalization, in this In the case of complex situations, proposals and countermeasures have been proposed on how to improve export competitiveness. (Song, 2012)

In "China's Analysis and Prospects for the Expansion of Imports of Thai Rice", aiming at China's increased efforts to increase Thailand's rice business as soon as possible, and looking ahead to the market development trend of Thai rice in China, increasing As soon as possible, on the one hand, Tammy is continuously expanding consumer demand in China, and on the other hand, the price difference in Thai rice has gradually narrowed, thus strengthening China's import business with Thai rice. (Chen, 2007)

Published "Realistic Analysis of the Relationship between Guangdong and Thailand's Agricultural Trade", using Porter's competitive advantage theory to integrate the agricultural products of Guangdong and Thailand. The trade competitiveness index and agricultural internal trade index are analyzed. The study finds that Guangdong and Thailand have close trade relations with agricultural products, while Thailand's agricultural products have

stronger international competitiveness than Guangdong, and they have made some bold proposals. (Zhang, 2008)

An agricultural economist of the Japan International Association, wrote *The Evolution of Rice Price Policies Over Four Decades: Thailand, Indonesia and the Philippines*, through Thailand's Thai rice export data from the 1960s to the 1990s, the impact of Thailand's rice pricing policy on Thai rice exports was analyzed. And in the article "The Impact of Green Revolution On Rice Production In Vietnam", an analysis of the important reasons for the increase in production of Tami's strong competitor Vietnam Rice. (Kei, 2005)

Studied the core of the behavior and behavior of the framework structure of the world rice market. The international rice market plays an important role, including Thailand. He studied trade, prices, production, and consumption. The study found that the rice market became very crowded and opportunities were reduced. Many importing countries have adopted this technology, which is faster than that of exporting countries. Rice market competition is more vulnerable. Due to space limitations and cost management systems, high control of water content, and changes in national policies, Asia has lost its comparative advantage in the world rice market. Rice production and consumption are declining. Importing countries will focus on policies. The increase in the import volume of rice per acre exceeds that of exporting countries. Different countries adopt different policies. There are few countries that have not been affected by world rice prices in the short and long term. He also found that the world rice market lacks control over production distribution from high cost to low cost countries. This shows that inefficient use of resources may even help promote the import of more of their production technologies. (Siamwalla, 1983)

Found that the growth rate of rice production in the world has been faster than the population growth rate in the past to the present, so rice demand may decline, leading to a decline in the prices of rice in the world market. If from now to the next 25 years, if the long-term trend of the global food situation is still the same as in the past, the amount of food production in the world market will increase. Rice exports increase, but prices may fall. Demand for rice in poor countries will triple. If improvements are made in technology, policy, investment, environment, etc., it will affect the future trade of the world rice market. (Sombilla, 2002)

Ulrike used confirmatory analysis in *Determinants Influencing Adoption of Geographical Indication Certification: The Case of Rice Cultivation in Thailand in 2010* to stratify the data collected from the Thai rice survey in two regions. Sampling, the results found that government and social factors have an important role in affecting rice cultivation, the main factors include: information, transportation costs, planting patterns and other key

factors. (Grote, 2010)

Garrett, Geoffrey's "Competitiveness in the International Context", is a deep evaluation and analysis of international competitiveness. The international competitiveness research method uses a variety of analysis methods, including quantitative indicators, is quantitative analysis of export volume and export volume. Second, qualitative analysis through theory. The evaluation indicators of this paper mainly use the IMD and the World Economic Forum's Geneva report as research indicators. After repeated argumentation, they found that trade policies, agricultural policies, liberalized capital flows and services in the EU, EU regional and structural policies and other common policies in promoting the international competitiveness of the new EU member states has a positive role in promoting.

Studied the current structural changes of the world rice market from 1950 to 2000 and found that the world rice market level has steadily increased between 1965 and 1981. Since the beginning of the decline in 1980, the price of rice has become more stable, and the price of rice in the world market is likely to be such a cycle. Asian rice exporters can compete with other competing countries in the world, so the structure of the world rice market will change significantly. (Dawe, 2002)

1.2.2 Overview of Domestic Research

Studies the structure of the rice market and the trade policy of the assets of the ASEAN countries of Thailand. Thailand's rice trade policy competitor is eyeing China as a country in Thailand. Thailand and China formally acquire the market share of each country. Lai in this country's market rice market structure is sold in the market. Lai's policy of trading with the government and the government, especially when the market is down, encouraged domestic rice prices to be higher, even though any further government exports of the latest rice are still on schedule. The humanitarian and political reasons for rice were sold in international news. (Euamporn, 1992)

Studied the factors affecting Thai rice export prices and found that the relationship between Thai rice export prices and US rice export prices in the opposite direction is not statistically significant. In other words, U.S. rice exports do not affect the quality of rice exported to Thailand. The lower rice exports of Chinese rice affect Thai rice exports. Since China is one of the largest producers of rice, the remaining domestic consumption of rice exports. This is a considerable influence on the world market. There are also incomes from partner countries, which play a role in exporting high-quality rice to Thai rice in the same direction, but the non-influence of rice to the same side will not affect the low-quality Thai rice exporters. The influence of the production volume of Thai rice exports prices. By

exporting high quality price elasticity. Because of the low quality of rice in the rice export market; there is a higher quality of rice, which is flexible and low in price and high-quality rice. (Chanattha, 2000)

Studied the comparative advantage of Thailand's rice exports between 1986 and 1996 by analyzing the comparative advantages of Thailand and its major competitors. An analysis of the comparative advantages of Thailand and its major competitors (including the United States, India, Vietnam, China, and Pakistan) leads to the following two conditions and continues to study these two situations. In the first case, the comparison of all exports and two Compare only deliver products. Out of analysis, Thailand's rice exports grew. Using a constant market share model to analyze the results of comparative advantage, it was found that each country had the comparative advantage of growing and exporting rice. However, the comparative advantages of the United States, Vietnam, China, and Pakistan are often relatively low. India, on the other hand, is very likely to increase its comparative advantage. The analysis shows that the increase in Thai rice export market share has changed. The results of Thailand's expansion of crop export competition and actual exports did not achieve the desired results, but from the perspective of the world's rice export market, Thailand's rice exports still accounted for the first place in the world. (Saifon, 2000)

Uses quantitative analysis to divide the world market share into two parts: The first part compares the export market share of Thailand and Vietnam and uses the international market share to analyze the factors that lead to changes in market share. The second part uses the model to estimate the market share and replace the elasticity coefficient to study the factor analysis of the rice market in Vietnam and Thailand in the international market. The results show that the export volume of rice in Thailand and Vietnam has an increasing market share. Thailand's exports are still 2.05 times higher than Vietnam's. The factors affecting the growth of rice exports in Thailand and Vietnam include the growth of the world's population. The main factors influencing the competitiveness of Thailand and Vietnam's exports in the global market are the price ratio between the two countries and the speed of rice supply. (Prapaporn, 2000)

Studies the impact of Thai rice exports on exchange rate fluctuations by using the minimum dichotomous method for calculating the volume and quantity of Thai jasmine rice and studying exchange rate fluctuations using the GARCH model. This indicates that exchange rate fluctuations have had a negative impact on the export prices of rice, reflecting that rice importers must take appropriate measures to cope with exchange rate fluctuations and reduce output. In addition, gross domestic product (GDP) is also an important factor that explains Tami's exports in the United States and Hong Kong markets. (Jittrawatcharagorn, 2010)

Studied the ability to find export growth. Adjust output according to market conditions and the speed of expansion of the world market. In the determination of the key factors in the market share, Thailand's rice export market in Asia is the import of American rice from Thailand in Asian countries. For the African market, the main factor is the dependence on imported Chinese goods to the African market. The main factors of the European market and the world market include the proportion of supply to the whole country exported to the United States. (Nitiya, 2004)

Study found that the factors that influence the growth of Thai rice exports are caused by external factors. The expansion of the world's total exports has not been increased more due to the expansion of the Thai rice exports. (Waraporn, 2007)

1.2.3 Comparative analysis of domestic and foreign research

Domestic and foreign scholars have conducted extensive research on export trade from different perspectives and in different areas. The main aspect of the study is to develop export theories, continuously expand its research direction, and better promote the development of export trade. From the middle of the 17th century, foreign scholars have conducted a simple research and analysis of international trade theories. Since the 18th century, with the continuous growth of the world economy, international trade has gradually expanded, and the importance and role of the export ratio have gradually emerged. Various countries began to attach importance to the development of export trade, that is, international trade, and began to deepen the study of export trade theories. This makes the study of trade theories gradually systematic and large-scale, and with the deepening of theoretical research, more new theories and perspectives. Also, constantly appearing. Since the end of the 18th century, the research direction of international trade has mainly been studied from the aspects of cost, demand, opportunity cost, production factors, demand conditions, opportunities, and government, and many works and papers related to theoretical research have emerged.

In the late 19th century, in order to adapt to the needs of the development of international trade, some important theoretical studies have appeared one after another. The scope of research on international trade theory at home and abroad has become more and more extensive, and the content of research has been continuously expanding.

Since the 19th century, Thailand has taken a new direction in the study of international trade theories. Research on international trade channels, strategies, and other aspects has gradually turned to the study of international trade information, talent, technology, and theory, and set off an upsurge of research. Has achieved certain achievements. At the same time,

some problems have also arisen. However, these problems have stimulated theoretical researchers to further research and explore the theory and practice of international trade.

At present, research on the basic theories of international trade is increasing in Thailand. In order to better adapt to the rapid development of the international community and economy, the theory serves the practice. Thailand attaches greater importance to the competitiveness of international trade in the international market. Theory The constant update also has important significance for the development of trade.

1.3 Research content and methods

1.3.1 Research content

The research content of this paper consists of five parts: Part I, exposition, Introduction mainly introduces domestic and foreign research on the export of Thai rice Status quo, purpose and significance of competitiveness, and research status quo of rice export competitiveness to china at home and abroad Analysis, and then formulate research content and technical route. Part II, the concept of export competitiveness theory, the relevant theories of export competitiveness are analyzed from the theory of absolute superiority to the Porter Diamond model and Porter model is analyzed to find the influencing factors of export competitiveness. Part III, mainly to analyze the status quo of Thai rice export competitiveness, and through index evaluation, and then study the international market Share rate, to evaluate through the dominance comparative advantage, trade competitiveness index and other methods. Part IV, to further explore the factors restricting Thai rice export competitiveness, the main favorable factors, adverse factors, and to find solutions. Part V, Finally, the relevant measures and suggestions to improve the competitiveness of rice export in Thailand is provided.

1.3.2 Research method

Index measurement method.

The thesis of the article is based on the theoretical basis of empirical analysis. With objective facts as well as relevant data bits, this paper introduces the status quo of the production, trade of Thai rice, studies its competitiveness position and development trend, and analyzes the factors that affect its competitiveness.

By Porter Diamond model and many other indicators for Thai rice is used to evaluate and analyze the international competitiveness.

Empirical analysis.

The research topic of this paper is based on the theoretical basis of empirical analysis. Using objective facts and relevant data to corroborate, present the status quo of Thailand's rice production and trade, study its competitiveness and trends, and analyze the factors that affect its competitiveness.



CHAPTER 2

THEORY REFERENCE ON EXPORT COMPETITIVENESS

2.1 The concept of export competitiveness

So, what do we mean by “competitiveness”? For many people, competitiveness is a disconcerting word, suggestive of pressures to change and constant adjustments. And these pressures can have personal and social costs, as well as very large benefits – we need to stay competitive for the long-term welfare of the people of each economy.

What does the word “competitiveness” mean to economists? In a narrow sense, it is often used to refer to international price competitiveness as measured by various indicators of effective exchange rates.

The earliest concept of export competitiveness stems from international competitiveness and is a further extension of the concept of international competitiveness. International competitiveness refers to the ability of a country to sell its products in the international market. Michael E. Porter believes that it is of practical significance to study international competitiveness at the product, enterprise and industry level. Based on this, the definition of export competitiveness is the product of a country or region that is exported to the local region of the country, and the export industry and the enterprises engaged in export have what they have in the international market. They can develop, occupy the international market, and profit from it. Ability. From a conceptual perspective, export competitiveness reflects the export products of the country or region. The competitiveness of export industries or export enterprises in the export market is equivalent to the industrial competitiveness in the export market.

2.2 The theoretical basis of export competitiveness

2.2.1 Theory of comparative advantage

David Ricardo proposed the theory of comparative advantage. He believes that the foundation of international trade is not limited to absolute differences in production technology. Even if a country is inferior to another country in the production of two commodities, there is no absolute advantage, but it is still possible to carry out mutually beneficial trade. As long as there is a relative difference in production technology between countries, relative price differences between product prices and production costs are unavoidable. Countries have comparative advantages in the production of different products. Each country concentrates on producing and exporting products with comparative advantages, and imports products with comparative disadvantages so as to obtain comparative benefits. From the perspective of the comparative advantage theory, it is not difficult for us to see that

a country has considerable international competitiveness in its products with comparative advantage.

2.2.2 Theory of absolute advantage

Adam Smith first proposed the theory of absolute advantage in the middle of 17th century in his book "The Wealth of the wealthy". As the representative of British classical economics, Adam Smith was also praised as the originator of economics; he plays an important role in guiding the development of economics. And the theory of absolute advantage has laid the foundation for the emergence of international trade. The connotation of absolute advantage theory refers the different production advantages among countries during the process of producing the same products in different countries due to the absolute difference in labor productivity. Adam Smith recognized the main absolute difference between labor productivity and production cost is the difference between "production technologies".

2.2.3 The law of comparative advantage

David Ricardo published the law of comparative advantage in 1817 in *the political Principles of economics and taxation*. In the book Ricardo puts forward that the core of the comparative cost theory is the law of comparative advantage. The law of comparative advantage is the inheritance and innovation of the absolute advantage theory of Adam Smith. So, the "*political economy and the principle of taxation*" is known as classical book of the classical international trade theory. Ricardo's law of comparative advantage indicates that the basis impacting the competitiveness of international trade in addition to technical differences, there are other different factors, which leads to countries in different products having comparative advantage; make international trend and international trade possible.

2.2.4 Theory of reciprocal demand

In 1884 John Stuart Mill proposed for the first-time theory of reciprocal demand in *the political and economic principles*, which mainly refers to the price of goods that is determined by supply and demand, and the ratio of international commodity. Mill explained the beneficial range of both party in international trade.

2.2.5 Opportunity cost

Gottfried Von Haberler earliest proposes national Competitive Advantage Diamond theory in the book "*International Trade Theory*". Gottfried Vo n Haberler as new Austrian

new factor representative, he used the concept of opportunity cost to re-explain the theory of comparative cost which the extension and development of Ricardo's comparative cost theory is.

2.2.6 Heckcher-Ohlin theory

Heckscher-Ohlin theory is the theory of factor endowment; the founder of this theory is Alberti-ohlin and Bertil-ohlin and was collated and processed by Samuelson. Heckcher first proposed the impact of factor ownership in the view of comparative advantage in *the role of the distribution of income in international trade* 1919, his Heckscher and Ohlin, have put forward the theory of factor endowment which is called Heckscher-Ohlin theory under his guidance. The theory was published the famous "*interregional and international Trade*" book, which opened the modern theory of international trade.

2.2.7 National competitive advantage diamond theory

Michael E. Porter, a professor at Harvard Business School and known as the Father of competition strategy, his main books "*Competitive Strategy*", "*competitive advantage*", "*national competitive advantage*", had been translated multilingual, and is deemed as the competition trilogy by professionals. The theory of national competitive advantage was first found in the book "National Competitive Advantage" in 1990. The theory explains the competitive advantage using the diamond system, which covers the four aspects that are production factor, demand condition, relevant industry and supportive industry, enterprise strategic environment as four basic factors, and also covers both the opportunity and the government auxiliary factors, then become the interaction system.

The factor of production is also called the factor condition; Michael E. Porte divides the factors of production into two categories: primary and advanced factors. Primary factors include natural resources conditions, natural climate, unskilled labor and other basic, low-level production factors; and advanced production factors mainly cover modern information and communication facilities, talents, science and technology etc. Nowadays, the weights of primary production factors in enterprises are gradually decreasing, while the advanced factors of production are more prominent in the competitive advantage, but the primary production factors still have important influence on agriculture and agricultural products processing industry. Demand factor - supply and demand relation is the important factor that affects the market, only when there is the market demand, can form the market. Porter believes that domestic demand and national competitiveness are closely linked, generally through the analysis of three indicators: first, whether the domestic demand for industry has global and advanced characteristics; second, domestic demand also has an

important impact on international competitiveness which shall observe through three points, including domestic demand Whether it is global and advanced, the scale of the industry and the speed of development, the ability of internal transformation. The third factor is relevant industries and supportive industries, which is also the extended industry in the horizontal and vertical integration, alluding to the competitiveness of industry upstream and downstream. The well development of correlative industry can build a good growth environment, to facilitate the industrial division and Cooperation. 4th, the enterprise strategy and structure and relevant industrial competitiveness are the important factors of enterprise development, and the evaluation of the strength of domestic competition is closely related to the competitive advantage of the industry.

Auxiliary factors: Government and opportunity are the important auxiliary factors of Porter's diamond model, which play an important auxiliary role to national competitiveness, and therefore also as an important evaluation index. Industrial development and opportunity and political environment are closely related, development opportunities, the need for basic inventions, technology and security, stable social formation and the great demand of the international market and so on have deep links. "Opportunity" is very contingency and non-enterprises and the Government can control, and all levels of government have impact to the overall competitiveness of which the most visible is the policy on the role of the diamond system.

2.3 Factors influencing export competitiveness

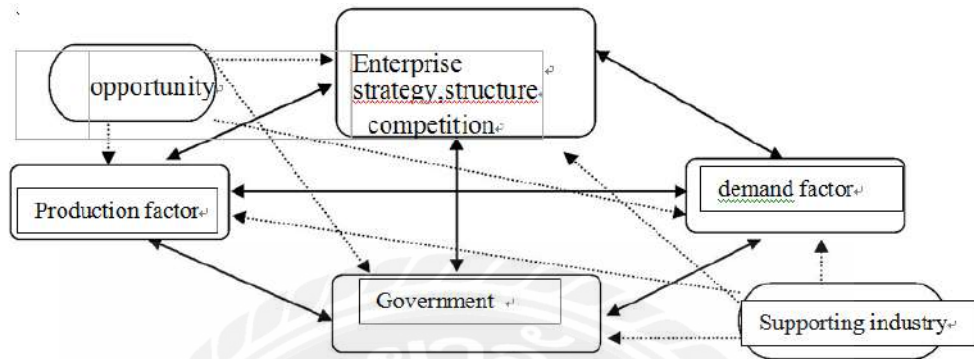
The factors that influence the export competitiveness are very complicated, at the earliest in wealth of the wealthy Adam Smith proposed the theory of absolute advantage, and then put the production technology as an important indicator of comparison, then in the theory of comparative advantage Ricardo took not only production technology as the important factors influencing the competitiveness and also paid a growing focus on other factors. In the theory of mutual demand John Mill deemed supply and demand relations as one of the important factors. Factor Endowment Theory opens the modern theory of international trade. And nowadays the impact factor of export competitiveness is mainly based on Michael Porter's national competitive Advantage diamond theory as a key index to evaluating export competitiveness.

2.3.1 National competitive advantage diamond theory

According to the theory of national competitive advantage, the factors of production, demand, related industries and supportive industries, the enterprise strategic environment are the four basic elements, meantime covers the two auxiliary elements opportunity and the

government to formulate the system of interaction to evaluate the influencing factors of national competitiveness. Porter believes that, “groups or clusters of interconnected firms, suppliers, related industries, and institutions that arise in particular locations, have become a new way for companies, and governments to think about economies, assess the competitive advantage of locations, and set public policy” (Porter, 1990).

Pic 2-1 Michael Porter diamond model



From : M.Porter, the Competitiveness Advantage of Nation

Factors of production: mainly divided into two major categories: primary and advanced factors, primary production factors include natural resources conditions, natural climate, unskilled labor and so on; advanced production factors mainly cover modern letters communication facilities, talent, science and technology and so on.

Table 2-1 Production factors

| | Level1 indicator | level 2 indicator |
|--------------------|--------------------------------|----------------------------------|
| Production factors | Primary production indicators | Natural resources |
| | | Climate condition |
| | | Terrain, topography |
| | | Non-technical workforce |
| | Advanced production indicators | Modern communications technology |
| | | Professional talents |
| | | Science & Technology |
| | | Innovative management model |

Demand factors: generally, through the analysis of three indicators: first, whether the

domestic demand for industry has global and advanced characteristics; second, domestic demand also has an important impact on international competitiveness which shall observe through three points, including domestic demand whether it is global and advanced, the scale of the industry and the speed of development, the ability of internal transformation. The enterprise strategy and structure are the important factors of the enterprise development. And the evaluation of the degree of domestic competition is closely related to the competitive advantage of the industry. Related and supporting industries: it is the extension of industry in the horizontal and vertical integration reflecting to upstream and downstream industries and related industries, the good development of the relevant industry can build a good growth environment for industrial development, to facilitate the formation of industrial division and cooperation.

2.3.2 International competitiveness evaluation

The International Institute for Management Development (IMD) ratings are based on a theoretical framework consisting of four factors that are assumed to shape the environment for national competitiveness:

- Attractiveness to foreign investment vs. aggressiveness in international markets;
- Emphasis on domestic, traditional economic activity vs. on companies with international operations;
- Reliance on natural resource assets vs. transformation processes (“created comparative advantage”);
- Personal risk promotion and social cohesion maintenance.

These four variables form the basis for individual measures of the eight Input Factors, e.g., savings rates, foreign direct investment, fiscal policies, availability of capital, technological infrastructure, management efficiency, R&D personnel, and attitudes and values. Thus, the criteria used to generate rankings are, not surprisingly, similar to those that underlie HTI. (Lausanne, 1999)

CHAPTER 3

ANALYSIS OF THE COMPARATIVE ADVANTAGE OF THAI RICE EXPORT

3.1 Status quo of world rice

3.1.1 Production countries

The production and consumption of rice in the world is mainly concentrated in Asia because the environment in Asia is suitable for rice production. Asia accounts for 90% of the world's production and consumption of rice because of its favorable warm and humid climate, but suitable lands for increasing rice production are almost exhausted. In Africa, the economic importance of rice has steadily increased over the last two decades. The amount imported has more than doubled following the gradual evolution which has taken place in the nutritional habits of many Africans, especially those living in the urban areas—which has changed from eating only traditional foods, such as cassava, millet and sorghum to rice and wheat. The per capita rice consumption has grown from 14.8 kg/year to 16.3 kg/year for the period 1980-1992. In Latin America and the Caribbean, rice production has increased by 32 percent in the last decade (1983-93) and also here the per capita rice consumption has increased from 25.8 to 26.3 kg/year. (Chataigner, 1997)

Global rice production grew rapidly in 2009-2012. This is because in many countries, rice production is growing at a high rate due to climatic reasons. Rice production for domestic consumption, the Government's policy in many countries have been diverted to commercial, rice production significantly increased, in order to meet demand, each country has a planned increase in productivity. Since many manufacturers have suffered from natural disasters such as droughts and floods, compared to the domestic rice products of the same type in 2009, a slight decline in 2010 in many countries including Brazil, Japan, India, Pakistan, China, the Philippines and Indonesia. Through the survey we learned that China is the main and largest rice production country whose average yield of rice in the world is very high. However, rice production in china is mainly used for domestic consumption, because China has a large population.

Sometimes there is not enough rice to meet domestic demand and china has to import from other countries. India is the second-largest producer of rice, and India's rice production ranks second in the world, but rice sales are mainly concentrated in domestic consumption and exports abroad. India will not import rice from abroad. Indonesia's rice production is in the world's third place, but the production cannot fully meet the needs of local resident's consumption they have to import from other countries, but the annual amount of rice imports is uncertain. At the same time, domestic production of rice is also uncertain. Import volume and production need to be coordinated.

3.1.2 Trade

The world's rice trade continues to expand, even more. But many countries' policies have changed a lot, and many countries' rice production must meet the domestic consumption demand first, and the surplus production will carry out export trade. Countries vigorously develop and improve rice production methods to meet domestic consumer demand and the growing demand for foreign trade.

The world's rice exports averaged 16.135 billion tons in 2008-2012. Thai rice is exported to many countries. Thai rice exports on average 4.62 billion tons, followed by Vietnam, India, Pakistan and the United States; the average export volumes in order are 31.3, 18.90, and 16.13, 1.679 billion tons of rice. (See table 3-1)

Table 3-1 2008 - 2012 Rice export of world exporter (Unit : 100 million ton)

| Year | Global | Thailand | Vietnam | India | America | Pakistan | Other |
|-----------|--------|----------|---------|-------|---------|----------|-------|
| 2008 | 29.75 | 9.92 | 4.65 | 3.38 | 3.22 | 3.05 | 5.54 |
| 2009 | 29.24 | 10.22 | 5.95 | 2.12 | 2.98 | 3.19 | 4.78 |
| 2010 | 29.88 | 8.62 | 6.50 | 2.50 | 3.53 | 3.80 | 5.23 |
| 2011 | 34.78 | 10.50 | 7.00 | 3.80 | 3.25 | 3.00 | 7.23 |
| 2012 | 37.70 | 6.94 | 7.30 | 7.15 | 3.15 | 3.75 | 7.16 |
| Total | 161.35 | 46.19 | 31.30 | 18.95 | 16.13 | 16.79 | 29.94 |
| Average | 32.27 | 9.24 | 6.26 | 3.79 | 3.98 | 3.36 | 5.99 |
| Ratio (%) | 50.32 | 14.40 | 9.76 | 5.91 | 5.03 | 5.24 | 9.34 |

Data from : World Market & Trade, USDA

3.1.3 Price

The price of rice is different in the world market. The huge number of different qualities of rice and the lack of commonly used grades means there is no single world market price for rice, a factor which has impeded the development of an international futures market for rice. It depends on a number of factors, including the quality of rice, classification of rice, production cost of rice, consumers' taste habits, different needs of import and export countries which all can lead to price fluctuations.

Trends in the level and stability of Asian rice production go a long way to explaining trends in world prices. In terms of stability, world rice prices have been through three distinct phases over the past fifty years. From 1950 to 1964, world prices were high, averaging \$860 per ton (constant 1998 prices), but relatively steady despite very unstable production. During

this period, Thailand, Burma Cambodia and South Vietnam dominated world rice exports, and rice was responsible for a large share of these countries' foreign exchange earnings. Thus, whenever there was a shortfall in Asian rice production, one or more of these countries would step in to fill the breach and prevent world prices from spiraling out of control. (Dawe, 2000)

3.2 Export status quo of Thai rice

3.2.1 Production of rice

Table 3-2 2008 – 2012 Thai rice yield (unit : 100 million ton)

| Year | Na Pri | Na Prang | Total |
|---------|--------|----------|-------|
| 2008 | 23.23 | 8.79 | 32.02 |
| 2009 | 23.25 | 8.42 | 31.67 |
| 2010 | 23.25 | 8.89 | 32.14 |
| 2011 | 25.44 | 10.14 | 35.58 |
| 2012 | 20.34 | 11.26 | 31.60 |
| Average | 23.10 | 9.5 | 32.60 |

Data from: Office of Agricultural Economics.

From 2008 to 2012, the average rice production in Thailand was 3.26 billion tons. The rice production cycle in Thailand is different, and there are two types of rice in Thailand: Annual and biannual, and Thailand's rice production growth rate is increasing every year (table 3-2). From 2008-2012 Thailand's average rice export volume, Thailand's rice production growth rate, Thailand's rice production growth percentage as shown in below. (See table 3-3)

Table 3-3 2004 - 2012 Volume and value of Thai rice export

| Year | Export value (kilo ton) | Growth rate (%) | Export value (100 million USD) | Growth rate (%) |
|------|----------------------------|--------------------|--------------------------------------|-----------------|
| 2004 | 7327.03 | - | 1631.71 | - |
| 2005 | 7342.94 | 0.22 | 1833.85 | 12.39 |
| 2006 | 9975.75 | 35.86 | 2693.00 | 46.85 |
| 2007 | 7495.90 | -24.86 | 2328.96 | -13.52 |
| 2008 | 7494.14 | -0.02 | 2583.04 | 10.91 |
| 2009 | 9912.52 | 22.66 | 3467.43 | 34.24 |
| 2010 | 10216.13 | 11.14 | 6204.08 | 78.92 |
| 2011 | 8619.87 | -15.62 | 5046.46 | -18.66 |

| | | | | |
|---------|---------|------|---------|-------|
| 2012 | 8939.63 | 3.71 | 5341.08 | 5.84 |
| Average | 8591.55 | 4.14 | 3458.85 | 19.62 |

Data from : Ministry of Commerce of Thailand, export promotion Office

The average export value of different kinds of rice in Thailand was observed in 2004-2012 and we can know scented rice export rank number on. The second is white rice and steamed parboiled rice. (Ministry of Commerce of Thailand, 2012)

Scented rice is very popular in the world market. Thailand's main export markets for rice include the United States, China, Singapore, and Malaysia. Studies in 2004-2012 showed that the largest importer of Thai Rice was the United States. The second is China, Singapore and Malaysia.

Table 3-4 2004 - 2012 Average value of exports of rice of different kinds in Thailand (unit : 100 million USD)

| Year | Scented Rice | White Rice | Steamed Parboiled | Broken Rice | Glutinous Rice | Brown Rice |
|-----------|--------------|------------|-------------------|-------------|----------------|------------|
| 2004 | 354.69 | 628.11 | 367.63 | 207.91 | 50.41 | 2.96 |
| 2005 | 590.06 | 623.58 | 302.68 | 225.12 | 60.18 | 32.22 |
| 2006 | 654.50 | 1114.79 | 546.42 | 272.78 | 52.56 | 51.95 |
| 2007 | 653.64 | 745.81 | 535.73 | 282.00 | 63.19 | 48.60 |
| 2008 | 815.34 | 815.84 | 501.11 | 307.56 | 88.66 | 54.53 |
| 2009 | 1009.72 | 1208.04 | 643.77 | 439.24 | 70.40 | 94.11 |
| 2010 | 1416.19 | 2196.33 | 1765.74 | 572.24 | 115.56 | 138.02 |
| 2011 | 1618.43 | 1006.46 | 1613.10 | 573.49 | 169.88 | 65.10 |
| 2012 | 1687.57 | 1455.01 | 1533.13 | 428.68 | 149.95 | 86.74 |
| Average | 977.79 | 1088.22 | 867.70 | 367.67 | 91.20 | 63.80 |
| ratio (%) | 28.29 | 31.48 | 25.10 | 10.64 | 2.64 | 1.85 |

Data from : Ministry of Commerce of Thailand, export promotion Office

If we look at the value of exports, we can find that the United States is Thailand's biggest rice export country with the average value of 20.879 billion U.S. dollars, accounting for 21.35 of total exports. Secondly are China, Singapore and Malaysia. The average value was 111.86, 69.73 and 5.182 billion (in order), accounting for 11.44%, 7.13% and 5.3% of

the total exports. Malaysia is the largest importer of Thailand by growth rate, the growth rate is 42.76% Secondly, the US and China grew at 27.85%, 14.95% (in order). (See table 3-5)

Table 3-5 2004 – 2012 Thai scented rice export volume and value

| Year/country | Average volume (kilo ton) | Average rate (%) | Growth rate (%) | Average value (100million USD) | Average rate (%) | Growth rate (%) |
|--------------|---------------------------|------------------|-----------------|--------------------------------|------------------|-----------------|
| Global | 1495.19 | 100.00 | 7.63 | 977.79 | 100.00 | 20.07 |
| America | 311.05 | 20.80 | 9.03 | 208.79 | 21.35 | 27.85 |
| China | 211.51 | 14.15 | 0.52 | 111.86 | 12.04 | 14.95 |
| Singapore | 112.40 | 7.52 | 1.07 | 69.73 | 7.13 | 14.78 |
| Malaysia | 90.43 | 6.05 | 22.57 | 51.82 | 5.30 | 42.76 |
| Other | 759.80 | 51.49 | 15.47 | 535.49 | 54.78 | 39.97 |

Data from : Ministry of Commerce of Thailand, export promotion Office

Thailand's white rice export target market is Iran, the Philippines, Malaysia, Japan and other major countries. It is found in table 14 that Iran is the largest exporter of white rice in Thailand, with an average volume of 349.78 kilo tones which is 11% of the total exports of Thai rice followed by the Philippines, Malaysia, Japan with the average volume of 270.88, 200.17, 122.10 kilo tons. (In order) The maximum average growth rate of import from the Philippines is 109.49%. Secondly, the average growth rate of Iran and Malaysia is 32.38%, 28.82% respectively. (In order)

If studied by export value, it can be found that the Philippine is the biggest Thai rice importer, the average value of 10.427 billion U.S. dollars, which is 9.58% of the total exports of Thai rice. Followed by Iran, Malaysia, Japan with export average value of 98.26, 75.27, 4.859 billion U.S. dollars, accounting for the total exports 9.03%, 6.92%, 4.5%. (In order) (See table 3-6).

Table 3-6 2004 – 2012 Export volume and value of white rice in Thailand

| Year/country | Average volume (kilo ton) | Average rate (%) | Growth rate (%) | Average value (100million USD) | Average rate (%) | Growth rate (%) |
|--------------|---------------------------|------------------|-----------------|--------------------------------|------------------|-----------------|
|--------------|---------------------------|------------------|-----------------|--------------------------------|------------------|-----------------|

| | ton) | | | USD) | | |
|------------|---------|--------|--------|---------|--------|--------|
| Global | 3179.62 | 100.00 | 7.25 | 1088.21 | 100.00 | 21.83 |
| Iran | 349.78 | 11.00 | 32.38 | 98.96 | 9.03 | 39.01 |
| Philippine | 270.88 | 8.52 | 109.49 | 104.27 | 9.58 | 140.78 |
| Malaysia | 200.17 | 6.30 | 28.82 | 75.27 | 6.92 | 57.49 |
| Japan | 122.10 | 3.84 | 24.61 | 48.99 | 4.50 | 45.84 |
| Other | 2235.70 | 70.35 | 14.22 | 761.44 | 69.97 | 43.45 |

Data from : Ministry of Commerce of Thailand, export promotion Office

Thailand's rice export competing country is mainly Vietnam, Vietnamese rice and Thai rice is more and more similar, Vietnamese rice prices has a certain advantage comparing to Thai rice, the price is lower than the Thai rice price a certain percentage, leading to many international buyers going to Vietnam to buy. Vietnam's increasing competitiveness in rice exports has led Vietnam to become a major competitor of rice export of Thailand.

3.2.2 Thai rice export

3.2.2.1 Importers of Thai scented rice

America

As time goes on, the U.S. demand for rice is increasing, mainly for food consumption, such as cereal, cake, farm feed and so on. In the United States, 90% of the rice is used to meet consumer food consumption. The United States is an open country with a lot of immigrants among which Asian consumers have a certain demand for rice being a popular staple food, although there is a certain price difference, Thai rice is the first choice for being very healthy, soft taste and high nutritional value. At the same time, many Americans and Europeans eating habits are constantly changing, there is a certain demand for Thai rice, and Thai rice of quality in the United States is increasingly popular.

Most of the rice imported on the U.S. market is of high quality, such as Thai scented rice, Indian scented rice, and Pakistan rice. Because most consumers in the United States have a high income, they have a certain consumption demand on high quality Thai rice. Thai rice export to the United States market continued to increase, from 2004 to 2012, the steady growth of the average volume of exports is 392.56 tons, and the market share is 72.48%. In addition to imports of scented rice from Thailand, the United States also import from other countries, such as: India, China, Pakistan, Italy and other countries.

Table 3-7 2004 – 2012 Comparison of import volume to America (unit kilo ton)

| Year/country | Global | Thailand | India | China | Pakistan | Italy | Other |
|--------------|--------|----------|--------|--------|----------|-------|---------|
| 2004 | 410.13 | 276.97 | 0.51 | 52.27 | 11.03 | 4.09 | 65.26 |
| 2005 | 448.07 | 294.80 | 83.19 | 49.76 | 12.25 | 4.25 | 3.82 |
| 2006 | 463.73 | 329.12 | 53.60 | 60.00 | 16.34 | 3.89 | 7.87 |
| 2007 | 408.10 | 320.95 | 0.92 | 70.87 | 15.40 | 4.87 | 5.96 |
| 2008 | 622.13 | 372.95 | 105.18 | 107.47 | 16.73 | 5.44 | 50.96 |
| 2009 | 682.70 | 376.51 | 129.21 | 58.97 | 16.28 | 6.43 | 46.80 |
| 2010 | 632.86 | 736.51 | 84.81 | 4.72 | 19.42 | 6.30 | -273.15 |
| 2011 | 664.12 | 434.24 | 83.96 | 2.65 | 17.25 | 5.78 | 118.17 |
| 2012 | 542.79 | 390.98 | 85.73 | 51.07 | 19.18 | 6.11 | 38.14 |
| Average | 541.63 | 392.56 | 69.68 | 51.07 | 15.99 | 5.24 | 7.09 |
| Rate (%) | 100.00 | 72.48 | 12.86 | 9.43 | 2.95 | 0.97 | 1.31 |

Data from : Ministry of Commerce of Thailand, export promotion Office

China

China is a big country of rice production and consumption in the world. China consumes an average of 2 million tons of rice per year. China has a large population and a wide range of imported goods. There are many factors, such as the number of domestic rice production and the amount of production, and the price fluctuation of imported rice affecting the rice import. Chinese consumers generally like the long grain rice, Thai rice quality is very good, long grain, very popular with the Chinese, Thai rice is of good quality, soft taste, is widely used in high-grade restaurants, etc.

Table 3-8 2004 - 2012 Comparison of import volume to China (unit: kilo ton)

| Year/country | Global | Thailand | Vietnam | Laos | Burma | Taiwan | Other |
|--------------|--------|----------|---------|-------|-------|--------|-------|
| 2004 | 236.19 | 230.82 | 0.00 | 0.20 | 0.15 | 5.00 | 0.02 |
| 2005 | 257.00 | 256.83 | 0.14 | 0.00 | 0.00 | 0.00 | 0.02 |
| 2006 | 761.71 | 731.60 | 29.44 | 0.34 | 0.09 | 0.00 | 0.24 |
| 2007 | 513.97 | 471.54 | 41.53 | 0.30 | 0.45 | 0.00 | 0.14 |
| 2008 | 719.01 | 678.71 | 35.55 | 4.33 | 0.24 | 0.00 | 0.18 |
| 2009 | 471.54 | 439.74 | 26.52 | 4.40 | 0.30 | 0.00 | 0.58 |
| 2010 | 295.57 | 286.40 | 1.32 | 4.32 | 2.89 | 0.00 | 0.65 |
| 2011 | 337.53 | 316.88 | 2.90 | 17.05 | 0.28 | 0.02 | 0.39 |
| 2012 | 366.19 | 299.09 | 56.09 | 6.84 | 2.44 | 0.04 | 1.69 |
| Average | 439.86 | 412.40 | 21.50 | 4.20 | 0.76 | 0.56 | 0.44 |

| | | | | | | | |
|----------|--------|-------|------|------|------|------|------|
| Rate (%) | 100.00 | 93.76 | 4.89 | 0.95 | 0.17 | 0.13 | 0.10 |
|----------|--------|-------|------|------|------|------|------|

Data from : Ministry of Commerce of Thailand, export promotion Office

In 2004-2012 China imported rice on average 439.86 tons, of which the average volume of rice imported from Thailand was 412.40 tons, and the import volume accounted for 93.76% of the total rice market share. Others include rice imported from Vietnam, Laos, Burma and Taiwan. From 2010-2012, China's imports of rice from Thailand have been declining. (See table 3-8)

3.2.2.2 Importers of Thai white rice

Iran

Iran needs to import white rice every year to meet domestic demand, and Iran produces an average of 330 million tons of white rice annually, but not able to meet the needs of domestic consumers and manufacturers. Since there are no restrictions on the import of rice from abroad while production cost is high in the country, there is a certain risk in production and cultivation, and the domestic production of rice is higher than the price of imports, thus increasing the demand for imported rice from abroad. Iran has been importing rice from Thailand for a long time, although the import volume is not very much. But since 2007, the volume of import of rice from Vietnam has gradually increased because the price of rice in Vietnam is cheaper than that of Thai rice. But Iran is a country that values the quality of rice. Thai rice has a unique taste and soft taste and superior quality, which can well meet the needs of consumers, and Thai rice has long been familiar to Iranian consumers. Although Thai rice is more expensive than Vietnamese rice, Iran still maintains a certain number of rice imports from Thailand.

Table 3-9 2004-2012 Rice import of Iran

(Unit: kilo tons)

| Year/country | Global | Thailand | Uruguay | Argentina | India | America | Other |
|--------------|---------|----------|---------|-----------|--------|---------|--------|
| 2004 | 603.08 | 369.68 | 146.07 | 60.55 | 21.52 | 5.27 | 0.00 |
| 2005 | 575.67 | 488.75 | 60.00 | 0.00 | 18.96 | 5.01 | 1.48 |
| 2006 | 700.86 | 607.16 | 92.51 | 0.00 | 1.19 | 0.00 | 0.00 |
| 2007 | 446.60 | 193.75 | 249.37 | 0.00 | 3.32 | 0.00 | 0.08 |
| 2008 | 817.95 | 642.99 | 154.78 | 0.00 | 20.17 | 0.00 | 0.00 |
| 2009 | 670.37 | 579.01 | 69.32 | 0.00 | 4.04 | 0.00 | 0.00 |
| 2010 | 398.54 | 170.62 | 126.22 | 0.00 | 67.65 | 0.24 | 1.29 |
| 2011 | 26.39 | 25.42 | 0.00 | 0.60 | 0.00 | 31.47 | 0.07 |
| 2012 | 1081.85 | 18.30 | 0.00 | 0.50 | 215.02 | 0.04 | 848.03 |

| | | | | | | | |
|----------|--------|--------|-------|------|-------|------|-------|
| Average | 591.26 | 345.96 | 99.81 | 6.85 | 39.10 | 4.67 | 94.55 |
| Rate (%) | 100.00 | 58.51 | 16.88 | 1.16 | 6.61 | 0.79 | 15.99 |

Data from : Ministry of Commerce of Thailand, export promotion Office

As we can see from table 3-9, in 2004-2012, the average volume of imports of rice from the world market to Iran was 591.26 tons, of which imports from Thailand averaged 345.96 tons, representing 58.51% per cent of the global total rice imports. In addition to importing rice from Thailand, Iran gradually began importing rice from India, Argentina, Uruguay and the United States, with average rice imports of 99.81, 39.10, 6.85 and 4.67 respectively accounting for the market share of 0.79, 16.88%, 6.61% and 1.16% respectively.

Philippines

Rice is a very sensitive and important agricultural product in the Philippines. National Food AUTHORITY: NFA of the Philippine government is now in charge of rice management to meet domestic demand for rice. It also is in charge of the production and maintenance of rice reserves in emergency times; including natural disasters, price stability. In addition, the Philippine government's long-term policy is to increase food production and agricultural self-reliance, to achieve the goal of imported rice from abroad 1% to 0%. Domestic rice production is enough to meet the domestic demand for rice.

Table 3-10 2004-2012 Rice import of Philippines (Unit kilo tons)

| Year/country | Global | Thailand | Vietnam | India | America | Pakistan | Other |
|--------------|---------|----------|---------|--------|---------|----------|-------|
| 2004 | 1200.59 | 134.97 | 378.16 | 596.51 | 39.96 | 24.37 | 26.62 |
| 2005 | 888.98 | 442.34 | 386.97 | 0.30 | 52.96 | 3.22 | 3.20 |
| 2006 | 1003.4 | 207.84 | 687.97 | 0.41 | 107.11 | 0.02 | 0.07 |
| 2007 | 1829.60 | 58.81 | 1695.76 | 0.49 | 55.58 | 17.81 | 1.16 |
| 2008 | 1723.28 | 112.89 | 1463.71 | 1.28 | 65.22 | 52.71 | 7.47 |
| 2009 | 1809.83 | 404.66 | 1380.83 | 0.64 | 0.00 | 17.75 | 5.95 |
| 2010 | 2438.93 | 584.18 | 1662.22 | 0.75 | 117.00 | 69.29 | 5.49 |
| 2011 | 1762.92 | 54.19 | 1673.86 | 1.32 | 0.00 | 10.60 | 22.95 |
| 2012 | 2386.22 | 444.87 | 1775.10 | 1.75 | 10.66 | 151.26 | 2.59 |
| Average | 1671.53 | 271.64 | 1233.84 | 67.05 | 49.83 | 38.56 | 10.61 |
| Rate (%) | 100.00 | 16.25 | 73.82 | 4.01 | 2.98 | 2.31 | 0.63 |

Data from : Ministry of Commerce of Thailand, export promotion Office

In 2004-2012, the Philippine average imported rice from world markets was 16.7653

million tons of which most was from Vietnam, an average annual import of 12.3384 million tons and the market share is 73.59%. In addition, the Philippine imported rice from Thailand, India, the United States and Pakistan on average 271.64, 67.05, 49.83, 38.56 kilo tons accounting for 16.2%, 4%, 2.97% and 2.3% of the world market share respectively.

The import of rice in the Philippines requires tendering and bidding. Thai rice prices are high and cannot be compared with Vietnam, resulting in Thai exporters without a certain advantage, resulting in little benefit. The Philippine government has negotiated with Thailand, and the Thai government wants the Philippines to make up for import tariffs under the ASEAN Free Trade Zone. In addition, Vietnam has signed a number of protection policies to serve as a reserve for rice and to protect domestic food shortages. This has increased opportunities for Thai rice exports.

Crops value in the world rice market has increased due to food problems and energy crisis. The Philippines is a country that needs import a lot of rice. At the same time, the Philippine government has formulated relevant policies to improve rice production to meet domestic demand. The government has set a decision to increase productivity and reduce the import of rice, hoping to cooperate with Vietnam in exchange for rice seed technology in 3 years to develop rice varieties, so that rice can be resistant to diseases and to have high yield. At the same time, the government proposed relevant trade policy according to the Straits Trade agreement in the ASEAN countries to reduce import tariffs to 0%. But the Philippines, which attaches great importance to agricultural products such as rice, refuses to lower the tax rate, making it difficult to meet Thai exporters' demand for a 20% per cent reduction in commodity taxes. One fixed tax rate of 40% could be lowered to 35% by year 2015. After negotiation between the Thai government and Philippines government allowing the tariffs on rice imported from Thailand were 0, but imports from Thailand shall reach 367,000 tons until the end of 2015.

3.2.3 Competitors of Thailand rice export

Vietnam

Viet Nam is a country with large rice crop. With planting area of about 4.65 billion hectares, Vietnamese rice exports accounted 5% for the world's rice exports. But it ranked second after Thailand. Planting area Vietnam is increasing every year and rice production yield in Vietnam is also increasing every year. The Vietnamese Government promotes agriculture to increase production of hybrid rice to cope with the global environment and to encourage farmers to use modern rice cultivation techniques in Tulsa to raise rice Productivity. The Government of Vietnam has put in place relevant policies to increase rice-planting plans, encourage rice cultivation and production, and increase rice production

and exports. The Vietnamese Government has promoted rice production and exports by increasing the planting area of rice and proposing corresponding rice export policies thus promoting the increase of Vietnamese Rice's share in the world market.

Vietnam's export rice market is divided into low-end and high-end markets. The low-end market is mainly distributed the Philippines and in parts of Africa. The high-end market is in Malaysia, Iran, Singapore, and Hong Kong. The main markets for scented rice of Vietnam include Asia, the Africa, Europe and Australia. The current market share of rice in Vietnam is increasing, and the market share in Asian market, especially in China, is increasing. Second increasing market is in Eastern Europe, the United States and Oceania. With the growth of market share of Vietnamese rice in the international rice market, Thailand and Vietnam's rice export are in competition, Thailand turned to steaming parboiled rice exports, mainly to Africa and the Middle East market where mainly steamed parboiled rice is used as the staple food. Steam parboiled rice production process is very complicated which need to be produced with certain production technology to support. Vietnam will take some time to study. Vietnam is expected to increase steam parboiled rice export competitiveness in the next few years, hoping to have a certain market share in the export steaming parboiled rice market.

Table 3-11 2003 – 2012 Comparison of rice yield and Export of Vietnam

| Year | Yield (Kilo tons) | Growth Rate (%) | Export (ton) | Growth rate (%) |
|---------|----------------------|-----------------------|-----------------|--------------------|
| 2003 | 21,527.00 | – | 3,795.00 | – |
| 2004 | 22,082.00 | 2.58 | 4,295.00 | 13.18 |
| 2005 | 22,716.00 | 2.87 | 5,147.00 | 19.84 |
| 2006 | 22,772.00 | 0.25 | 4,705.00 | -8.59 |
| 2007 | 22,922.00 | 0.66 | 4,522.00 | -3.89 |
| 2008 | 24,375.00 | 6.34 | 4,649.00 | 2.81 |
| 2009 | 24,393.00 | 0.07 | 5,950.00 | 27.98 |
| 2010 | 24,689.00 | 1.21 | 6,500.00 | 9.24 |
| 2011 | 24,820.00 | 0.53 | 5,800.00 | -10.77 |
| 2012 | 26,300.00 | 5.96 | 7,000.00 | 20.96 |
| Average | 23,659.60 | 2.27 | 5,236.30 | 7.83 |

Data from : Ministry of Commerce of Thailand, export promotion Office

Thailand is Vietnam's main export competition country, with which there are more and more business contacts. According to statistics Vietnam's rice export increased by 60% in 2009. The competition for Thai white rice, especially medium and low quality is very fierce, for example: Thailand's rice exports in the Philippines, Iraq, Iran and other countries gradually increased, among the market share Vietnam taken the market share of white rice gradually increased. In the Philippines, Iraq, Iran, and other markets, Thailand's high-quality rice market share continues to improve.

In 2010, Vietnam faced financial problems. Vietnam's government announced a devaluation of its currency, leading to a fall in the price of rice. Because the Vietnamese government is facing a financial crisis, it needs capital flow. The price of rice in Vietnam is so low that rice in Vietnam is cheaper than Thai rice at \$100-200 per ton. Vietnam's export of rice has been affected by many factors, including the quality of rice, which is affected by the humid weather, making rice will not grow well. Vietnam is the world's main exporter of rice, the granary for rice storage in Vietnam is few, and the damp weather is not conducive to the storage of rice, so the price of rice export is lower. Now in cooperation with Ghana, the Philippines and Burma, the Vietnamese government has opened warehouses in foreign countries to store rice for the storage of rice in Vietnam.

China

China is a big producer and exporter of rice. To improve rice planting technology and high yield of rice is the most important problem for Chinese government. The Government encourages scientific research in the cultivation of new rice technology and encourages farmers to grow more rice. In 2004-2012, China rice production grew at an average annual rate of 121124.30 tons of production. 2012 average output of 137,000 tons, growth rate of -1.65%, slightly lower than 2011 years. (See table 3-12)

From 2004-2012 China's rice exports is at average volume of 1015 tons annually. The annual rice production and export volume of China are unstable. From 2004-2012, the average rice exports of china fell by 5.47%, and China's exports were mainly of white rice, which has better quality than scented rice. There is a growing demand for scented rice in the global market. The Chinese government is promoting better quality rice to meet global market demand.

Table 3-12 2003 – 2012 Comparison of rice yield and export of China

| Year | Yield (kilo tons) | Growth rate (%) | Export (tons) | Growth rate (%) |
|------|-------------------|-----------------|---------------|-----------------|
| 2003 | 122,180.00 | – | 2,583.00 | – |

| | | | | |
|---------|------------|-------|----------|--------|
| 2004 | 112,462.00 | -7.95 | 880.00 | -65.93 |
| 2005 | 125,363.00 | 11.47 | 656.00 | -25.45 |
| 2006 | 126,414.00 | 0.84 | 1,216.00 | 85.37 |
| 2007 | 127,200.00 | 0.62 | 1,340.00 | 10.20 |
| 2008 | 130,224.00 | 2.38 | 696.00 | -48.06 |
| 2009 | 134,330.00 | 3.15 | 783.00 | 12.50 |
| 2010 | 136,570.00 | 1.67 | 600.00 | -23.37 |
| 2011 | 139,300.00 | 2.00 | 900.00 | 50.00 |
| 2012 | 137,000.00 | -1.65 | 500.00 | -44.44 |
| Average | 129,104.30 | 1.39 | 1,015.40 | -5.47 |

Data from : Ministry of Commerce of Thailand, export promotion Office

Exporters to China must be a country or a corporate entity with more than 2.5 billion U.S. dollars in imports and exports and with wholesale and retail n grain more than 10 billion Yuan. Exporters are required to have a business license. You can obtain a license from your local business department. To increase the import and export of rice, China has joined the World Trade Organization (WTO). The right to compensation for exports of rice, wheat and corn accounted for 8.5% of the export rate.

America

Compared with other countries, the U.S. rice production is lower; the U.S. rice is mainly medium grain and fine grain. American rice production is mainly in Southern California. Rice exports in the United States are more concentrated on grain because they cannot compete with other countries in the market. From 2004-2012 on average, rice yield grew by 6807.50 kilo tons annually than other general grain production. U.S. productivity grew by 7.593 million tons at 2.01% at 2012. In 2012 the price of rice grown in the region changed, and the growth rate of fiber crops fell to 2.65% (see table). Output growth rate is lower than 2011 years. As rice prices have dropped, the government has proposed policies to encourage local farmers to shift to alternative-crop production with another higher-quality rice as a substitute.

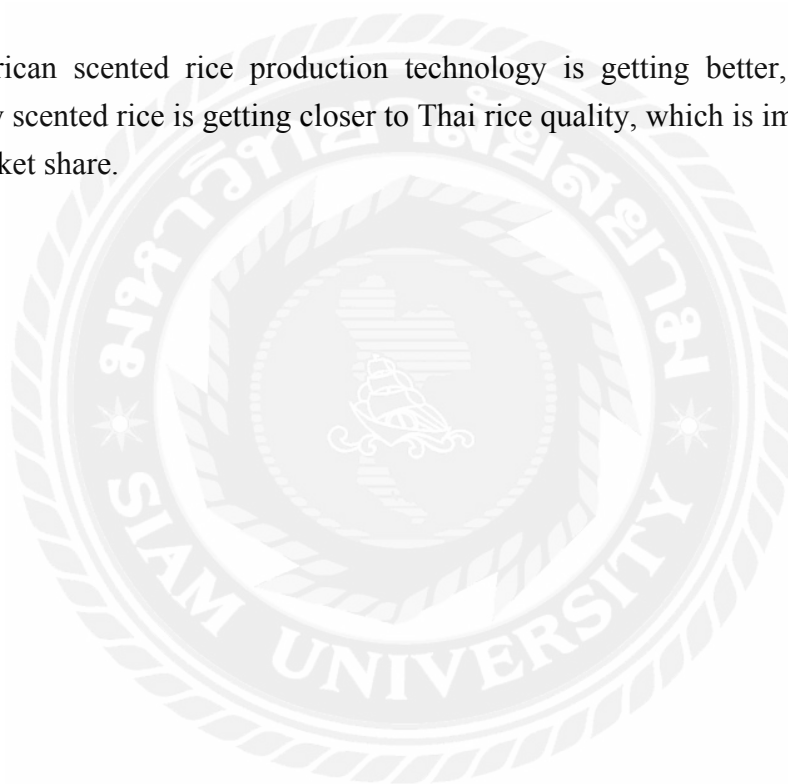
Table 3-13 2003 – 2012 Comparison of rice yield and export of America

| Year | Yield (kilo tons) | Growth rate (%) | Export (tons) | Growth rate (%) |
|------|-------------------|-----------------|---------------|-----------------|
| 2003 | 6,536.00 | – | 3,834.00 | – |
| 2004 | 6,420.00 | -1.77 | 3,090.00 | -19.41 |

| | | | | |
|---------|----------|--------|----------|--------|
| 2005 | 7,462.00 | 16.23 | 3,862.00 | 24.98 |
| 2006 | 7,113.00 | -4.68 | 3,306.00 | -14.40 |
| 2007 | 6,088.00 | -14.41 | 3,003.00 | -9.17 |
| 2008 | 6,149.00 | 1.00 | 3,219.00 | 7.19 |
| 2009 | 6,400.00 | 4.08 | 2,983.00 | -7.33 |
| 2010 | 6,917.00 | 8.08 | 3,525.00 | 18.17 |
| 2011 | 7,397.00 | 6.94 | 3,550.00 | 0.71 |
| 2012 | 7,593.00 | 2.65 | 3,250.00 | -8.45 |
| Average | 6,807.50 | 2.01 | 3,362.20 | -0.85 |

Data from : Ministry of Commerce of Thailand, export promotion Office

The American scented rice production technology is getting better, production and research of new scented rice is getting closer to Thai rice quality, which is impacting the Thai rice export market share.



CHAPTER 4

THE ADVANTAGE AND DISADVANTAGE ON COMPETITIVENESS OF THAI RICE EXPORT

4.1 SWOT analysis of Thai rice export competitiveness

SWOT analysis is a classical strategy analysis tool based on four fields namely strengths, weaknesses, opportunities, and threats. According to Hill & Westbrook 1997 and referred by Friesner. SWOT analysis and strategic planning originated from the academics of Harvard Business School in the 1960s. These scholars defined good strategy as one that guarantees fit between the external situation of a company and its internal qualities and characteristics. This definition influenced SWOT framework in a way that advances the search for this fit as its core idea.

The SWOT analysis framework has two distinctive parts. First, it looks into the internal strengths and weaknesses of a business, and then provides an external view of opportunities and threats. The classification of items in this four-field framework can be aided by a question list specially designed for this purpose.

Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis is a commonly used instrument which scans internal strengths and internal weaknesses of a product or service industry and highlights the opportunities and threats of the external environment. Generally, SWOT is a list of statements or factors with descriptions of the present and future trend of both internal and external environment; the expressions of individual factors are general and brief, which describes subjective views. (Kongrer, 2013)

4.1.1 Internal strengths (S)

Excellent location

Thailand has unique climate and location conditions. Is the climate warm and the rainfall is also abundant, it has superior conditions for the cultivation of rice? Thailand's Chao Phraya Plain is vast and fertile. Historically, it has been famous for planting rice and tropical fruits, and its area accounts for about 50% of Thailand's land area. Superior location the production of quality rice provides the basic guarantee. Because the national climate gap is not large and there are few serious natural disasters, rice can be produced throughout the year, making Thai production more stable than other competitors.

Convenient transportation and perfect infrastructure

The Thai government has invested hundreds of billions of baht in the development of agricultural infrastructure, with priority given to the development of farmland water

conservancy and rural transportation. Thailand's farmland water conservancy and rural transportation are better in Southeast Asian countries. This has played a very positive role in agricultural production and circulation of agricultural products. To establish a strict rice quality standard, the Thai rice standard is the most standard and detailed of all rice producer countries in the world, and it has also played a very good role in protecting the quality of Thai rice exports.

Strict quality standards

Since the first Thailand rice standard was promulgated on May 20, 1957, the Thai rice standard has been undergoing many changes over the past 50 years and has been continuously improved to adapt to the fierce international market competition. It has been developed to ensure the quality of Thai rice. The rice standard in Thailand is the most complex and detailed rice standard in all rice producing countries in the world. The strict rice standard guarantees the quality of exported rice and also provides a “pass” for Thailand’s best-selling world.

Technical support volume

Thai rice has always had a high-quality image in the fierce international rice market, not only because of the peasants' hard work and meticulous care, but also because the Thai government has continued to allocate large sums of money to support the cultivation of excellent rice varieties in order to introduce new and better products. On average, every three to four years will be launched with good quality replacements. Not only that, the government also has strict restrictions and requirements on rice cultivation areas, planting times, harvesting time, storage time, and processing requirements. Advanced agricultural science and technology support and promote rice production. The government has consistently and extensively promoted the cultivation of new varieties of rice to increase the farmers' awareness of their quality. At the same time, due to government support, farmers' enthusiasm for planting has always been rising. Thailand's Rongli rice is the best proof of Thailand's rice technology support quality.

Good reputation for a long history

Thailand has won the championship in world rice sales for many years, and its high-quality rice is sold in more than 100 countries in all continents of the world, and its annual export accounts for 20-30% of the world's total rice exports. China, the United States, Japan, and Nigeria have always been the major importers of Thai rice and have maintained good cooperative relations with Thailand. In the fiercely competitive international rice market, Thailand not only won the reputation of “the world's rice warehouse,” but also won wide acclaim and trust with its unquestionable quality.

Long-term policy tilt

Judging from Thailand's policy tilt policy, Thailand's rice production and trade policy has always received strong government attention. From 1959 to the present, the government has always paid great attention to Thai rice and given a large tilt in its policies. It has made agricultural production, especially rice production, the top priority of the country. The insistence of 55 years has shown the seriousness of the Thai government in agriculture, with attention.

Thai rice exports are highly competitive

By analyzing the indicators of export competitiveness of Thailand and the world's major rice exporters Vietnam and India in 2008-2013, four indicators all show that Thailand has always had a strong export competitiveness, with the highest market share and in 2011 it was up to 0.09%, with the highest comparative advantage of rice display, not only high but also relatively stable trend, the indicator of comparative advantage index has been higher than 20% and has the largest net export index.

4.1.2 Internal weaknesses (W)

Low cost and high output

Although Thailand has always been the world's largest rice exporter, rice production is very low. According to the US Department of Agriculture's 2008-2013 statistics, Vietnam produces an average of 850 kilograms of rice per mu. India's rice produces an average of 550 kilograms per mu, but Thai rice yields an average of 450 kilograms per mu. The average yield of rice in Thailand is about 53% of that in Vietnam. Not only that, during the cultivation of rice, a large amount of agricultural production materials such as fertilizers and pesticides are required, which in turn increases the production cost of rice. Although the transportation is very convenient, the Thai transport industry basically relies on well-developed public transportation, which is naturally much higher than the cost of water transport in Vietnam. Finally, Thailand's rice processing costs are also higher than Vietnam and India. If Thailand does not identify ways to increase rice production, cut production and transportation costs, high costs will reduce the export competitiveness of Thai rice, and competitors will continue to erode the world market that Thai rice occupies, and its position as a world granary will be in jeopardy.

Limited planting area development

From the perspective of the rice planting area in Thailand, although the rice planting area in central and northern Thailand has been large, it has reached 45%. However, as the southern part of Thailand's newly developed rice area, the development of plantation area is limited, and the scale is still small, accounting for only about 3% of the country's rice

planting area. This will affect production costs, management methods, and bargaining power.

The influence of natural factors

Planting rice is riskier. As a planting crop, rice has a great influence on it. Precipitation, climate, typhoon, seasonal changes, etc. can easily affect rice production and require special care for rice farmers. Rice crops cost more. In addition, most of the farmers' rice plantations are not large enough to use the scale effect. They fall into a small scale of income savings, lack of funds at hand, and thus have no funds to support the vicious circle of further expanding the rice cultivation area. What are more, some farmers as a result of the income shortage; it was forced to stop planting.

Weak bargaining power

As the international rice market is in the buyer's market, the seller's bargaining power is weak. Although Thailand occupies an important position in the world rice market, due to the general trend of the international rice market, it does not have strong pricing and bargaining power in the international market, affecting its income.

Production and preservation technology needs to be improved

Thailand's rice not only suffers from low yields but some high-quality varieties such as Thai jasmine rice can only be cooked once a year because of agricultural technology limitations. The new rice flavor, texture and color are all excellent, but it is not easy to preserve. Once had a very short shelf life, old rice quality will once be. This not only poses severe challenges to transportation and logistics, but also brings about greater market risks. How to carry out the production process preservation, ensure it's fresh quality perennial stability is an urgent problem to be solved.

Many circulation links and high costs

The circulation of Thai rice is very tedious. From the farmers to the final sale to the rest of the world, at least five links need to be experienced. All levels are exploited, and finally the rice that is circulated to the market has a price that is several times higher than its purchase price. In order to earn more profits, some poor rice brokers have even sold poor quality rice in high quality rice. This practice has seriously damaged the quality and image of Thai rice exports. Vietnam, Thailand's main competitor of rice exports, has adopted "low prices" as a means of competition in the international rice market. The market price of Vietnamese rice is generally lower than Thailand by 80-100 USD/ton less than Thailand. Although the quality is good, high prices have led many countries such as Southeast Asia's Philippines, Indonesia, Hong Kong, South Africa, the Middle East countries and the United States to reduce Thailand's rice imports and switch to importing lower-quality but lower-priced Vietnam rice.

Farmers lack awareness of protecting the environment

Traditionally, Thai farmers planted two crops of rice a year, from August to November and December to March of the following year. From April to July, land is used to grow soybeans with low water use. After harvesting soybeans, the branches and leaves of soybeans are buried and used as fertilizers to fertilize the land. This can reduce the use of chemical fertilizers and reduce costs. In addition, farmers use plants such as tobacco leaf, vanilla, and eucalyptus leaves as pesticides. The cost of such plant pesticides is very low, and it will not harm human health. Now, in order to obtain faster and more profit, farmers use pesticides and chemical fertilizers in large quantities in production, which not only damages the environment but also is not conducive to human health. The government and relevant departments should actively explore green and efficient agricultural measures and obtain benefits on the premise of ensuring product quality and not damaging nature, so that people and nature will live in harmony, and will not pay the heavy costs of destruction of nature and the birth of children and grandchildren.

Unfavorable government control

The Thai Government Party proposed the policy of rice pledges. The Thai government purchased rice at a price of 15,000 baht per ton, which caused the price of Thai rice to rise much higher than the market price. Generally, Thai rice will not reach the high price of 15,000 baht/ton, and high prices will lead to a backlog of rice stocks that cannot be sold. The rice pledge policy resulted in a fiscal loss of 136 billion baht (approximately US\$4.4 billion); the loss levels for the 2012-2013 seasons are still in statistics. This policy has caused farmers in southern Thailand not to trust the government, causing instability in the region. This measure, which is not the market but the government decides the price of agricultural products, is extremely risky.

4.1.3 External opportunities (O)

Strong demand for Chinese rice market

From the analysis of the current situation of rice consumption in the world, China is currently the largest consumer of rice. China's rice market has developed rapidly and it has maintained a good trading environment. Rice imports have been around one million tons. The comparative data from Chinese rice production and China's consumption shows that the gap in the demand for rice in China is large and needs to rely on imports. This has brought great opportunities for Thai rice exports. At present, Thailand's rice is well developed in the Chinese market.

Pay attention to the construction of agricultural infrastructure

The Thai government should invest hundreds of billions of baht in the development of agricultural infrastructure, which will give priority to the development of farmland water conservancy and its priority in the development of farmland water conservancy and rural transportation. Thailand's farmland water conservancy and rural transportation should be said to be better in Southeast Asian countries, and it has played a very positive role in agricultural production and circulation of agricultural products. Using advanced agricultural science and technology to support and promote rice production. Among them, insisting on nurturing and promoting rice varieties is always the long-term and persistent work of the Thai government's agricultural department. Thai Jasmine rice is the best evidence; the introduction and promotion of advanced processing equipment and scientific processing technology, to maximize the rate of polished rice; The principle of simplicity, economy, and practicality extends the scientific knowledge and operating techniques of rice cultivation to a wide range of farmers; it sets strict rice quality standards. The Thai rice standard is the most standardized and detailed standard of all rice producers in the world, and it has also played a very good role in protecting the quality of Thai rice exports.

Expand Thailand's domestic rice consumption market opportunities

Analyzed from the consumption of Thai rice, Thailand's rice consumption is small, and the total amount is less than 20% of the total production. This shows that Thailand's rice consumption market is not yet saturated, and there are many opportunities to provide interested investors to participate in strengthening. Thai rice industry competitiveness.

Kunming to Bangkok R3A Highway

The Kunming-Bangkok R3A road starts from the Moho port in Yunnan Province of China and passes through Laos to Chiang Rai, Thailand. The total length is 228 kilometers. After opening, it will open the transport route from southern China via Thailand to the Andaman Straits, and Thailand will become important cargo distribution center on the highway. This road can not only actively promote the development of Thai economy, but also enhance the development potential of various transport systems.

In addition, the Thai government also plans to build the Mekong river tunnel. At present, Chinese companies have invested in cargo shipping, tourism and shipping in the Mekong River Basin. Sino-Thai cooperation has brought about broad prospects for the development of Thai economy. At the same time, private Thai companies have also invested heavily in border cargo transit systems to meet the increasing demand for land transportation in the future.

The establishment of the ASEAN Economic Community

The ASEAN Economic Community (AEC) is the leader of the 10 ASEAN countries that

signed the contract at the 13th ASEAN Leaders' Meeting held in Singapore. It has overall planned the measures that ASEAN should take in the years from 2008 to 2015 to strengthen the government and the business community. In order to accelerate cooperation with partner countries in the free trade negotiations, we hope to establish ASEAN as a single market by 2015. These open investment systems will play a key role in enhancing ASEAN's competitiveness and attracting foreign direct investment and investment in the ASEAN region. Since Thailand, Indonesia, Malaysia, and Vietnam are also members of the ASEAN Economic Community, they need to increase their production potential, expand vast rice area, find new areas, and use new technologies to increase their production potential. However, there is a large demand for increasing the productivity of rice and the industrial investment of rice processing plants. It cannot be accomplished by relying on only one country. Thailand's opportunity to work closely with its allies on the opportunities presented by AEC can not only promote economic development, but also increase bargaining power and maintain the stability of the entire rice price.

China has also signed the "Framework Agreement on Comprehensive Economic Cooperation between China and ASEAN Countries" with 10 ASEAN countries. The China-ASEAN Free Trade Area was officially launched in 2015. The economic and trade cooperation between the two countries has achieved rapid development under the framework agreement. Demand increases, and low tariffs are good for Thai rice.

4.1.4 External challenge (T)

Competitors are tough

A comparative analysis of the export competitiveness of Thailand's rice and competitors shows that many countries are actively increasing the export potential of rice, especially in Vietnam. From the export competitiveness index of the world market, Vietnamese rice has strong export competitiveness. Although the export potential from the Pi, RCA, NTB, and Nit indices is lower than Thailand, the NTB index is almost the same as Thailand. Moreover, the average yield per mu of rice is much higher than that of Thailand, and the unit production cost is lower than Thailand. The export potential is great in the future.

The strong price advantage of rice in Vietnam and India

Thanks to the appropriate climate and government procurement policies, India's rice cultivation area has continued to expand and large quantities of rice and barley have been exported. Although the quality is inferior to Thailand, the increasing international market share has made it a strong competitor for Thai rice. Thai rice's international market share has also begun to be eroded. Vietnam's rice export contact grid Basha lower than Thailand, but the quality is much worse than in Thailand. The price of rice exported from Thailand during 2008-2013 was 10% higher than that of Vietnam, and the spread has continued to increase,

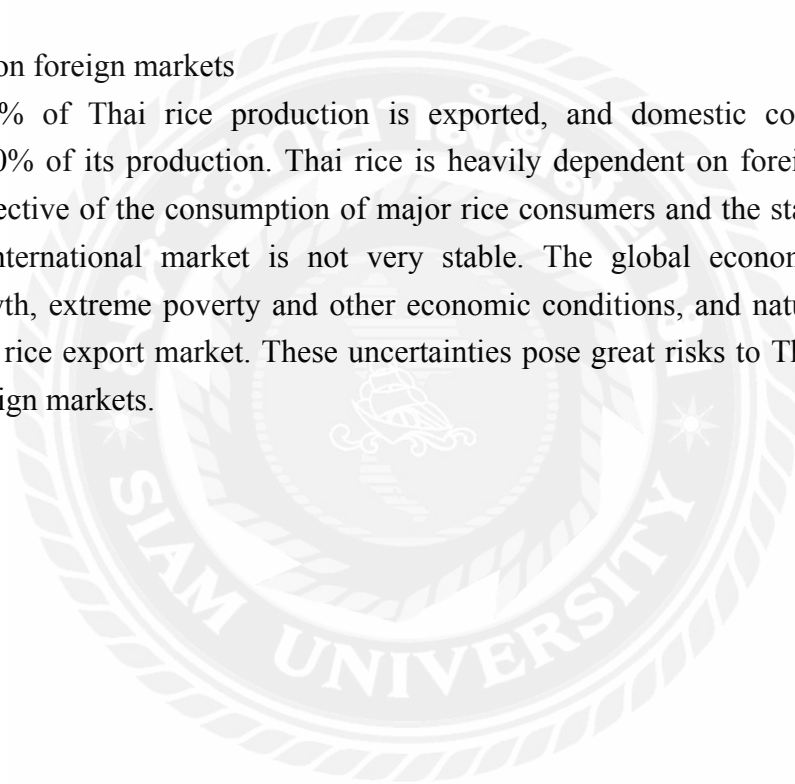
which has seriously affected Thai rice exports in Southeast Asian countries. In recent years, Vietnam has exported more rice to the Philippines and Malaysia than Thailand. In Hong Kong, Taiwan and Australia, China began to switch from importing Thai high quality rice to import rice from Vietnam.

Cooperation between China and ASEAN poses a risk to Thailand

The establishment of a China-ASEAN free trade zone is a double-edged sword for Thai rice exports. On the one hand, thanks to the zero-tariff policy, Thailand is able to export more rice; on the other hand, Thai rice is facing more fierce market competition. Rice from countries such as Vietnam and India are better than Thai rice at cost, and other countries have seized some markets.

Relies heavily on foreign markets

About 80% of Thai rice production is exported, and domestic consumption only accounts for 20% of its production. Thai rice is heavily dependent on foreign markets, but from the perspective of the consumption of major rice consumers and the status of Thai rice exports, the international market is not very stable. The global economic crisis, slow economic growth, extreme poverty and other economic conditions, and natural disasters all affect the Thai rice export market. These uncertainties pose great risks to Thai rice that rely heavily on foreign markets.



CHAPTER 5

POLICIES OF IMPROVING THE EXPORT COMPETITIVENESS

Through the research on the competitiveness of rice exports, this article will propose several suggestions to maintain and increase the export competitiveness of Thai rice. This article elaborates on three aspects.

5.1 Thailand rice management policy

Reduce production costs

The Thai government should work to reduce the cost of rice and increase price competitiveness. High costs have become the main factor limiting the competitiveness of Thailand's rice market. High costs are mainly caused by three links. One is the high cost of production materials in the production process; the second is the high cost of links in the process of circulation and links, and the complexity of the procedures; Third, because Thailand's transportation mainly relies on roads, and the cost of road transportation is high, which is also caused by One of the important reasons for the high price of Thai rice. The government needs to improve from the following three aspects. First of all, to reduce the cost of rice production, the government should strengthen the promotion and promotion of scientific planting, such as spreading the knowledge of scientific fertilization and soil conservation and reducing the cost of means of production; secondly, reducing the circulation of rice; and finally, improving the transportation system and raising domestic demand. The level of logistics management can reduce the cost of rice transportation. At the same time, the government can appropriately patch terminal operators, reduce storage and operating costs, and reduce the cost of rice exports.

Improve irrigation system

The area covered by artificial irrigation in Thailand accounts for only 32% of the rice planting area. The other 68% rely mainly on rainwater. All these have brought unstable risks to rice production. It is necessary to increase government investment to improve northern and northeastern regions where artificial irrigation in Thailand is underdeveloped. The further improvement of the artificial irrigation system will increase the irrigation area of rice in Thailand and reduce the risk of farmers' lack of water, which provides a strong guarantee for ensuring the increase of farmers' income and economic stability.

Establishment of Rice Specialist

Although the Thai government now has a lot of rice related departments, these departments are out of touch with farmers. Not strong enough. So, the government should send special civil servants to the farmer's plantation, regularly in order to truly understand the

demand of farmers to produce rice and facing difficulties, ensure that the department of agriculture master first-hand information of rice production, targeted, timely take effective measures to solve them.

Study rice quality and production volume

Each country has different geography, climate, natural resources, science and technology, culture, and especially talent resources. Although many countries can grow rice, but each country has different advantages and disadvantages, so strengthen exchanges and cooperation and learn from each other. Strengthen the construction of water conservancy and logistics facilities and formulate scientific rice cultivation plans according to market demand to guide rice farmers to rationally arrange production and mutual development is the best way to promote the development of rice industry.

Improve quality and yield

The productivity of the Thai rice industry should be enhanced through research and development of appropriate high-yielding varieties. Sufficient budget should be allocated to fund ongoing research programs in cooperation with regional and international agencies. Increasing rice-cropping intensity, which takes advantage of government intervention programs, should be closely scrutinized in terms of efficient resource utilization and sustaining the competitiveness of Thai rice production. (Boonjit, 2012)

The government should not interfere with too much market price

On the marketing side, concerned stakeholders in the rice industry, especially the private sector, should work in concert to map out the ways and means to promote the rice as timely market information.

Government agencies should be responsible for day-to-day administration of rice quality control in order to build up the trust and confidence of importers in the quality and safety of the food supply system.

Government representatives and advisors should take part in identifying technical, institutional and policy constraints faced by the exporters in meeting sanitary and phytosanitary (SPS) requirements.

Government should play its role in terms of funding new research and development activities, aimed at rice quality improvement and cost reduction. (Muhammad, 2009)

5.2 Thai rice international market policy

Strict implementation of quality inspection

In order to ensure Thailand's rice brand image in the international market, the Thai government should establish a set of quality inspection procedures. A special rice monitoring committee must inspect the exported rice. According to the size of the freight, determine the amount of random sampling, and require that the export documents, packaging instructions, and inspection reports are completely consistent, and that they can meet the standards before exporting. In addition, in order to ensure the purity of the exported fragrant rice, the government should also set up a special investment in the export of fragrant rice testing centers to ensure that the proportion of rice mixed with other varieties does not exceed 8%.

Establish a complete information system

At present, the total rice production in Thailand is only ranked sixth in the world. In the world rice market, Thailand not only has to face competitors such as the United States, Australia and other high-quality rice exporters, It also has to accept the challenges of low-quality rice exporters such as Vietnam and India. In order to continue to advance in the fierce competition, the Thai government should recognize the important role of information systems in international trade. The developed information system can first monitor the production, consumption, market prices, and trade policies of major rice exporting countries, respond to changes in time and adjust them in a timely manner, and second, use information systems to build rice importers and potential importers. Promote Thai rice export information and brand image.

Control the appreciation of Thai baht

The government should maintain the stability of Thai baht exchange rate. Since the appreciation of the Thai baht will have a greater impact on rice exports, and the production cost of Thai rice is greater than that of Vietnam and other countries, while the total demand for rice in the international market has changed little during the same period, Thailand's rice export competitiveness has been greatly weakened. The appreciation of the Thai baht has seriously affected the domestic economic development. The high prices of Thai baht have caused heavy losses to rice exporters, which has led to the closure of some small companies. The price/performance ratio of Thai rice will further decline, and the competitiveness of products will further weaken. Maintaining the stability of the Thai baht is not only beneficial to the export of rice, but also is one of the basic conditions for Thailand's economic development and an important advantage in expanding exports and attracting foreign capital.

Increase product added value

The policy should focus on supporting Thailand's product franchise stores throughout the world. The expansion of sales channels has enabled Thailand's food, especially the rice market, to expand. The government should actively promote the opening of more and more

Thai restaurants abroad and support the cultivation of pollution-free rice. Due to the enhanced environmental awareness in developed countries and the growing preference for environmentally friendly consumer goods, the demand for pollution-free products is increasing in foreign markets. At present, Thailand's agricultural products including rice are facing more fierce competition from countries such as Vietnam and India. Focusing on investing in agricultural product manufacturing such as semi-processed foods, catering snacks, and herbal soaps is a good way to expand Thailand's agricultural market and reduce competitive

Actively seek common ASEAN interests

Thailand is strategically located in the center of the Indochina Peninsula, and it is also an important gateway to the Mekong sub region. The trade routes with China, India and other Asian countries are very convenient. In addition to its superior geographical advantages, Thailand is also an important member of the Association of Southeast Asian Nations and a center of economic cooperation with Southeast Asian countries. Therefore, Thailand should make full use of regional advantages. At the same time, it must maintain the superiority of export rice in quality and superior fragrant rice, emphasize its irreplaceable quality, and vigorously publicize in order to gain the understanding and support of rice exporters. In addition, Thailand has other advantages, such as high standards for rice mills, stringent rice grading standards, and relatively complete infrastructure. Despite the high demand for rice in the global market, Thailand still needs to be prepared to cope with the new ASEAN member countries that are expanding rice cultivation to increase rice exports, and these countries will become strong competitors for Thai rice exports. (Zhao, 2010)

5.3 Thailand rice export development policy

Maintain the existing market

From the Thai rice export market, Thailand's rice exports are mainly China, Japan, the United States, and Nigeria. These countries need to import rice every year. With the continuous development of economic development and living standards, the demand for rice continues to rise. It is difficult for domestic rice supply to meet demand and it must rely on imports. Although they must rely on imports, Thailand is not the only country that can come to the country. Therefore, it must maintain good relations with rice importing countries and propose a friendly rice policy to maintain its original rice market share.

Strengthen domestic rice consumption potential

Although Thailand is a major exporter of rice in the world, it is also necessary to strengthen domestic rice consumption potential and stimulate domestic rice consumption. Instead of just increasing the added value for exporting rice. Innovative Thai rice products;

establish their own brand, implementation and development comprehensive. Thailand must vigorously promote the construction of rice industry, increase production potential, strengthen management, increase transportation potential, strict the inspection and quarantine system for product exports, actively participate in international organizations, create export standards that are conducive to Thailand, and ensure the smooth development of Thailand's export rice trade. We must strengthen domestic consumption potential and create a stable domestic consumer market.

Strengthen publicity

Thailand should pay attention to rice international brand promotion, make full use of its rich tourism resources, and vigorously promote the good image of Thai rice to domestic and foreign tourists. In foreign countries, especially major exporting countries and regions, the government should take the lead in organizing public relations activities to demonstrate the excellent quality of Thai rice. In addition, the current medium for Thai rice information is relatively small, and many of the information is not true and reliable. In fact, because most of the rice coverage in the rice-growing area is not high, Thai farmers rarely learn about rice information through online channels. Most of the channels through the radio or television, so the relevant departments should not only maintain the original media channels, but also should increase access to more information, so that timely and extensive information dissemination.

Strengthen trade cooperation with importing countries in the rice market

Thailand should increase its management of the rice market and work hard to establish and gradually improve the rice market system. Strengthen more favorable information channels, build sub-stations, introduce domestic exporters' profiles, and international trade exhibition information, etc., and provide an effective environment for the international trade market for rice.

Solving the problems of Thailand's water transport channels

Although road transport is safe and convenient, its cost is relatively high. Thailand has many waterways, and it is necessary to strengthen the construction of water and land transportation, expand and match well-developed ports, and build a developed modern port system to enhance the water and land transport capabilities of the waters. Simplify waterway transportation procedures, provide one-stop services such as warehouses, quarantine units, and entry services to speed up product circulation, increase product distribution efficiency, and reduce logistics and transportation costs.

Focus on developing the Chinese market

The price gap between Thailand and rice-exporting rivals has been widening because of

the high pledging price and the baht's strength. Local exporters are having a tougher time competing with other rice growers, especially Vietnam, whose prices are lower by US\$170 a ton, Chinese consumer behavior has changed to lower-quality rice because of high prices of Thai rice and slowing economic growth. The Thai government should set a competitive price for rice, which should be lower than the current price by US\$100 a ton in order to narrow the gap between Thai rice and its rivals. Thailand can use its own advantages in rice production to cooperate with relevant Chinese rice companies in order to increase Thailand's export competitiveness. (Pruetthichat, 2016)



CONCLUSION

This paper analyzes the comparative advantage and the trend of rice export in Thailand, by using the comparative advantage theory, the absolute advantage theory, the mutual demand theory and the comparative advantage principle, such as the traditional theory of comparative advantage and the theory of industrial trade, and through the calculation data, expounds the present situation of Thai rice export competitiveness, from the theoretical and empirical point of view. This paper analyzes the favorable factors and unfavorable factors of rice export in Thailand, and finally puts forward some relevant countermeasures to solve the problem of rice export in Thailand. The paper deals with the status of rice in the world, the status of rice export in Thailand, the rival country of rice export in Thailand, the structure, the problems faced by Thai rice export and the countermeasures. In order to study the competitiveness of rice export in Thailand, this paper mainly draws the following conclusions:

The competitiveness of Thai rice in the international market is measured by showing comparative advantage Index, trade data and international market data. Study of scented rice, the data shows that India is Thailand's rival country to export rice; Thailand export has a certain comparative advantage, and also has a strong competitiveness. But the rice index showed a downward trend, which could explain the weakening of comparative advantage. For white rice, the data shows that Thailand's white rice exports have a certain number of disadvantages, and their comparative advantage has declined. In white rice export Vietnam is an important rival country, and Vietnam has a certain advantage to Thai rice. It also finds out that Pakistan's comparative advantage rises rapidly.

The study shows the disadvantages of Thailand's rice export competitiveness, including higher prices and greater volatility, higher production costs than other rivals, blind processing of white rice, reduced acreage, and international market competitiveness. In addition, the policies of Thailand and rival governments also have an important downside to the competitiveness of rice exports.

In response to Thailand's rice export competitiveness, this paper has found that, in addition to relying on expanding the scale of agricultural operations, making efforts to increase production efficiency and the implementation of rice industrialization, we should increase productivity and increase the degree of further processing of rice. Also, by actively exploring new markets and consolidating the global market, we should also flexibly adjust the structure of rice export to deal with the changes in the international market. In addition, Government and civil trade promotion agencies also play an important role in improving the international competitiveness of rice exports.

All in all, Thailand should take a positive attitude to solve the problems and make use of its own rice, reduce costs and improve rice quality.



REFERENCES

- Hu, Z.L. (2010). International Trade Theory and Policy. *Beijing: Tsinghua University Press*, 8(05), 3-10.
- Zhang, J.C. (2012) International Trade Theory and Practice. *Beijing: Electronic Engineering Press*, 8(03), 22-26.
- Bai S.Q. (2000). Global competition theory. *Beijing: China Economic Management Press*, 20(02), 108-112.
- Chen J.H. (2009). Theory of Industrial International Competitiveness Review. *Economic Forum*, 12(08), 67-69.
- Jin, P. (1997). International Competitiveness of Chinese Industry - Theory, Method and Empirical Study. *Economic Management Press*.
- Michael, P. (1997). National Competitive Advantage. *Economic Management Press*, 20(3), 203-204.
- Zou, W. (1995). Empirical Measurement and Theoretical Research on China's International Competitiveness. *Economic Review*, 13 (05), 12-17.
- Song, X.T. (2012). Analysis of the Present Situation and Countermeasures of Foreign Trade in Shandong Province. Hunan: *Central South Forestry University*, 22(6), 2-5.
- Chen, Y.F. (2007). Analysis and Prospects of China's Expansion of Imported Thai Rice. *Agriculture Outlook*, 32(01), 24-28.
- Zhang, J. (2008). A practical analysis of the agricultural products trade between Guang Dong and Thailand. *South China View*, 2 (11), 3-4.
- Kei, K. (2005). The Evolution of Rice Price Policies over Four Decades: Thailand, Indonesia and the Philippines. *Oxford Development Studies, Taylor and Francis Journals*, 33(2), 305-329.
- Kei, K. (2006). The Impact of Green Revolution on Rice Production in Vietnam. *The Developing Economies, Institute of Developing Economies*, 44(2), 167-189.
- Siamwalla, A. (1983). The World Rice Market: Structure Conduct and Performance. *Research Report to International Food Policy Research Institute*, 47(5), 207-213.
- Sombilla, D. (2002). A long-term outlook of rice supply and demand balances in South, Southeast and East Asia. *IRRI. Asian rice economy, Los Banos, Philippines*, 1(25), 435-437.
- Grote, U. (2010). Determinants Influencing Adoption of Geographical Indication Certification: The Case of Rice Cultivation in Thailand. *RCDE*, 3(52), 51-53.
- Dawe, D. (2002). The changing structure of the world rice market, 1950-2000. *Food Policy*, 3(03), 355-370.
- Viroj, N.R. (1990). Accumulate knowledge about rice. *Thailand Development Research Institute*, 21(3), 23-27.
- Euamporn, R. (2000). An Analysis of Thai rice market structure and the policies of Asian rice trade. *Bangkok: Kasetsat University*, 20(4), 14-19.
- Kongrerk, L. (2013). A Study of the Competitive Advantage of Thai Traditional Medicine and Herbal Products. *University of the Thai Chamber of Commerce*. Retrieved June 13, 2014, from <http://eprints.utcc.ac.th/>

- Prapaporn, S. (2000). A Competitive Analysis of Export Competition in Rice Trade between Thailand and Vietnam. *Bangkok: Kasetsat University*, 20(2), 22-60.
- Jittrawatcharagorn, G. (2010). Impacts of exchanges rate volatility on Thai rice export. *Bangkok: Kasetsat University*, 2(4), 34-47.
- Nitiya, S. (2004). An Analysis of market shares of Thai rice and the U.S. rice export. *Bangkok: Thammasat University*, 20(2), 61-69.
- Waraporn. (2007). An Economic Analysis of Thai Rice Export. *Bangkok : Ramkhamhang University*, 2(7), 17-29.
- Porter, M.E. (1990). Competitive Advantage of Nations. *New York, NY: The Free Press*, 72-601.
- Lausanne, S. (1999). World Competitiveness Yearbook, *International Institute for Management Development (IMD)*, from <http://www.imd.ch/wcy.html>
- Chataigner J. (1997.) Research activities on rice in Mediterranean climate. *World rice production: main issues and technical possibilities*. 57-69.
- Li, F. (2012). Research on the international competitiveness of China's service trade. *Wuhan: Wuhan University Press*, 2(5), 37-39.
- Dawe, D. (2000) The future of the world rice market and policy options to counteract rice price instability, *IRRI*.
- Chen, Y. (2008). International Trade Theory and Practice. *Beijing: Tsinghua University Press*, 8(2), 20-23.
- Wu, L.H. (2009). Food International Trade. *Beijing: China Light Industry Press*, 3(9), 49-67.
- Xu, L.Q. (2008). International Trade Course (Second Edition). *Shanghai: Fudan University Press*, 2(8), 34-47.
- Yang, X.K. (2012). The New Results of the New Trade Theory Comparative Benefit Theory and Its Empirical Study. *Literature Review, Quarterly Journal of Economics*, 1 (01), 12-13.
- Hu, Z.Y. (2006). Research on International Competitiveness of Chinese Rice: Based on Comparative Analysis with India, Pakistan, Thailand and Vietnam. *Chinese Agricultural Science Bulletin*, 6(8), 22-27.
- Gordon, M. (2006). Malaysian Rice Trade and Government Interventions. (1), 2-15.
- Phanitanat, Y. (2010). Composition of rice export potentials between Thailand and Vietnam. *Chiangmai University*, 8(2), 47-56.
- Ulrike, G. (2010). Geographical indication for Jasmine rice: Applying a log it model to predict adoption behavior of Thai farm households. *Quarterly Journal of International Agriculture*, 51(2), 157-185.
- Adam, J. (2013). Price relations between export and domestic rice markets in Thailand. *Agriculture and Food Policy Studies Institute*, 8(42), 48-57.
- Peter, W. (2007). Distortions to Agricultural Incentives in Thailand UL. *Agricultural Distortions working Paper*, 37(4), 219-264.
- Zhao, D. (2010). China - ASEAN Rice Trade Competitiveness Analysis. *Financial Forum*, 1(8), 149-149.
- Li, W.J. (2011). Analysis on the Decline of Rice Exported from Rice in Thailand in Recent Years. *School of International Chinese Education, Yunnan Normal University*, 2(8), 73-74.

- Xu, L.S. (2015). Analysis of the Comparative Advantages of Thai Rice Exports and the Influencing Factors. *Agricultural Economy*, 5(11), 121-123.
- Zheng, G.F. (2017). Thailand's rice export trade status, problems and corresponding strategies. *Economic Forum*, 2(1), 130-134.
- Boonjit, T. (2012). *The Rice Situation in Thailand*. Retrieved Jan 1, 1970, from www.adb.org.
- Muhammad, I. (2009). *Competitiveness among Asian Exporters in the World Rice Market*. Retrieved Dec 14, 2015, from www.pide.org.pk.
- Pruetthichat, P. (2016). Thai Rice Competitiveness Development in Anticipating Export Market to Chinese. *The International Journal of Business & Management*, 4(5). 319-324.

