UNIVERSITAS INDONESIA

AN ANALYSIS OF INDONESIA'S EXPORT COMPETITIVENESS IN COCONUTS

THESIS

Submitted in partial fulfillment of the requirements for the degree of Master of Economics

SAMUEL LODOWIK PASKAH
0806469016

FACULTY OF ECONOMICS
MASTER OF PLANNING AND PUBLIC POLICY
ECONOMIC GLOBALIZATION

DEPOK
DECEMBER 2009

STATEMENT OF AUTHORSHIP

" I certify that the attached material is my original work. I declare that no other person's work has been used without due acknowledgement.

Except where I have clearly stated that I have used some of this material elsewhere, it has not been presented by me for examination in any other course or unit at this or any other institution.

I understand that the work submitted may be reproduced and/or communicated by the University or a third party authorized by the University for the purpose of detecting plagiarism. "

Name	:	Samuel Lodowik Paskah
Student Register Number	:	0806469016
Document	:	Thesis
Title	:	An Analysis of Indonesia's Export Competitiveness in Coconuts
Date	:	
Supervisor	:	Dr. Andi Fahmi Lubis

Depok,

(Samuel Lodowik Paskah)

PAGE OF ENDORSEMENT

This thesis is proposed by :

N a m e	:	Samuel Lodowik Paskah
Student Register Number	:	0806469016
Program	:	Master of Planning and Public Policy
Title of thesis	:	An Analysis of Indonesia's Export Competitiveness in Coconuts

It has been defended to board of examiners and submitted in partial fullfilment of the requirements for the degree of Master of Economics in Master of Planning and Public Policy, Faculty of Economics, University of Indonesia.

BOARD OF EXAMINERS :

Supervisor	:	Dr. Andi Fahmi Lubis	(……..)
Examiner 1	:	Dr. Ir. Widyono Soetjipto	(……..)
Examiner 2	:	Dr. Maddaremmeng A. P.	(……..)

Stipulated in	:	Depok
Date	:	

ACKNOWLEDGEMENTS

I would like to thank Almighty God, Jesus Christ, that only with His blessing, grace and guidance. I am able to complete this thesis entitled: "An Analysis of Indonesia's Export Competitiveness in Coconuts".

This research is a partial fulfillment of the requirements for the degree of Master of Economics in International Trade Policy, Master of Planning and Public Policy Program, Faculty of Economics, University of Indonesia. With the completion of this thesis, I would like to express my sincere gratitude to the following people who made this research possible:

1. Minister of Trade and USAID for giving me a precious opportunity to have this scholarship program;
2. Dr. Andi Fahmi Lubis as my supervisor who had provide his time, energy and mind as well as constructive critics, recommendations and patience to guide me in completing this thesis, and also as the Secretary of the Program of Master of Planning and Public Policy, Faculty of Economics University of Indonesia;
3. Arindra A. Zainal Ph.D, Head of the Program of Master of Planning and Public Policy, Faculty of Economics University of Indonesia;
4. Dr. Ir. Widyono Soetjipto and Dr. Maddaremmeng A.P., who provides improvement recommendation for this thesis;
5. My lovely parents, my brother and my sisters for their never ending support;
6. Dr. Pos M. Hutabarat who also had provide his time and ideas;
7. Dr. B. Raksaka Mahi and Mrs. Hera Susanti, SE., M.Sc. for their support during their position as Head and Secretary for the Program of Master of Planning and Public Policy, Faculty of Economics University of Indonesia;
8. All of the lecturers who had been sharing their knowledge with us during the study process; the academic bureau staffs who had helping us with the administrative process and also the general affair staffs who had preparing the equipment during the study process;
9. Mrs. Cintavhati P. and Mrs. D.J. Sulichah who both have given me some important knowledge on how to write an academic writing;

10. Mr. Roger Freeman, Mr. Stephen V. Marks, Mr. Michael Reed, Ms. Ernawati Munadi, Ms. Dian Cahayani and all of ITAP-USAID staffs who have been very helpful in supporting all of the needs during the study;
11. Head of National Agency for Export Development;
12. Secretary of National Agency for Export Development;
13. Mr. Hari Wartono and Ms. Diah Djuniarti, Head of Finance Division and Head of Finance Sub-Division on Accounting and Verification who had given the permission to study in this scholarship program;
14. Mr. Rahayubudi and Mr. Robby Kumenaung who also have been very helpful in supporting us during their period in charge as Head of Education and Trainning Center;
15. All of my friends on MITP Batch 3 class who have been wonderful and magnificent partners in experiencing togetherness for better and worse (i.e. Abi, Sigit, Agus, Andi, Desi, Duma, Hanas, Tama, Aji, Heni, Ika, Rika, Risna, Dodo, Iwan, Usman, and Wasiyanto), especially Niken and Titi who had been helping me with their ideas and data for my thesis;
16. Friska and Wahyu, for their support and help;
17. All of the people not mentioned above, who also had helped and inspired me during my study and research completion.

Last but not least, I believe that this research is still imperfect. Therefore, suggestions are welcome to enhance this research.

Depok,

Samuel Lodowik Paskah

PAGE OF ASSERTION AGREEMENT ON THESIS PUBLICATION FOR ACADEMIC INTEREST

As civitas academia of University of Indonesia, I who signed on below:

N a m e	:	Samuel Lodowik Paskah
Student Register Number	:	0806469016
Program	:	Master of Planning and Public Policy
Department	:	Economics
Faculty	:	Economics
Kind of Opus	:	Thesis

For the development in science, I agree to give Universitas Indonesia a **Non Exclusive Royalty – Free Right** on my thesis entitled:

"An Analysis of Indonesia's Export Competitiveness in Coconuts"

along with the available sets of equipment (if needed). By this Non Exclusive Royalty – Free Right, Universitas Indonesia has the right to save, format, manage in the form of database, maintain and publicize my thesis without asking my permission as long as mentioning my name as the writer and as the owner of the copyright.

Thus this statement I made truly.

Made in : Depok
Date :

Samuel Lodowik Paskah

ABSTRACT

Name : Samuel Lodowik Paskah
Study Program : Master of Planning and Public Policy

Title : An Analysis of Indonesia's Export Competitiveness in Coconuts

Indonesia is one of the biggest producer and exporter of coconut commodity in the world, unfortunately, Indonesia is still not be able to utilize this commodity full potential in order to maximize the benefit which can be obtained from it. This research objectives is to analyze the competitiveness of Indonesia's export in coconuts using the Revealed Comparative Advantage (RCA) and the Constant Market Share Analysis (CMSA) methods. The result shows that competitiveness of Indonesia's coconuts as a whole was on good condition, Indonesia can compete with its competitors in the world market. However, Indonesia's coconut exports still dominated with low value added products.

Keywords: *coconut, competitiveness, RCA, CMSA.*

ABSTRAKSI

Nama : Samuel Lodowik Paskah
Program Studi : Magister Perencanaan dan Kebijakan Publik
Judul : Analisa Kompetitifitas Ekspor Kelapa Indonesia

Indonesia merupakan salah satu negara produsen dan eksportir kelapa terbesar didunia, tetapi Indonesia masih belum bisa memanfaatkan potensi yang dimilikinya agar bisa lebih optimal lagi dalam memberi keuntungan yang bisa dihasilkan. Tesis ini bertujuan untuk mencoba menilai daya saing ekspor komoditi kelapa Indonesia di pasar dunia. Metode yang digunakan adalah Revealed Comparative Advantage (RCA) dan Constant Market Share Analysis (CMSA). Hasilnya, ekspor kelapa Indonesia secara keseluruhannya memiliki daya saing yang bagus, sehingga Indonesia bisa bersaing dengan para pesaingnya di pasar dunia, akan tetapi ekspor tersebut masih didominasi oleh produk-produk yang bernilai tambah rendah.

Kata kunci: *kelapa, kompetitifitas, RCA, CMSA.*

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXES

CHAPTER 1
INTRODUCTION

1.1 Background

Indonesia has been implementing its national development strategy based on export from 1980, since then Indonesia has been adopting an export lead development strategy (Djiwandono, 1997:469). As a result exports play a significant role in Indonesia's economic growth. These exports are crucial factor in creating an inflow of foreign exchange and expanding the market for Indonesia's products. The foreign exchange that flows into the country will be used as financial resources to support the rapid development process, while the expanding market will be used to push our domestic production to achieve its economies of scale level. These two reasons may become the main argument of Indonesia for using this export lead development strategy in order to drives its economic growth as well as many other countries which have been using this strategy.

In early years using export lead development strategy, Indonesia still mainly focusing in the export from oil and gas commodities because of its prices in the market at that time, but these commodities are not sustainable. Their existences are very limited in the nature, due to the length of time needed to process oil and gas by nature. These commodities had to be find an alternatives to keep the consistency of Indonesia's export lead development strategy, then it goes to agricultural commodities, and later it expand to industrial products (Sitohang, 2008:1).

In agricultural sector, Indonesia has a lot of commodities that have been exported such as coffee, palm, cocoa, rubber, coconut and many other commodities. All of these commodities are widely spread being planted by Indonesia's farmers across the country where as Indonesia is a wide archipelago country, in which lands are abundantly available along the archipelago; it is also supported with a big population and supportive climate condition in a whole year. So, in this sector Indonesia still has some advantages to explore.

In the other side, the industrial sectors, Indonesia already exporting products like textiles, footwears, electronics, automotive components, furnitures and many other products. However, in this sector Indonesia is not yet become a major player in the global competition; this is because majority of Indonesia's industries still applying low industrial technology and low skilled labor, compare to many advanced industrial countries had been used today. Furthermore, Indonesia is not a typical capital intensive country; instead it is a labor intensive one. Therefore, the majority of industrial sector in Indonesia is still in the labor intensive and low technology level.

In agricultural sector, Indonesia has five main tree crop estates. They are palm, coconut, rubber, sugar cane and cocoa. This research is focus in one of Indonesia's main tree crop estate commodities, which is coconut. Coconut is a special commodity. There are few facts that make this commodity to be considered as special. First, this commodity has a historical fact. This commodity has been one of the commodities that supporting the country's economy long before the country itself had its independence. Second, this commodity has an advantage in geographical fact. Indonesia is located in the equator area of the globe that can be categorized as a tropical country where this is a suitable place for the coconuts to grow well and would be able to produce high quality commodity. Third, recently, the Ministry of Agriculture has put special attention to this commodity, which called '*Kebijakan Pengembangan Kelapa Terpadu*' or Coconut Harmonized Development Policy in which its focus is developing the coconut industries in Indonesia.

The biggest producers of coconut commodity in the world are countries that lie in the Asia and Pacific region, specifically countries that become the member of the Asia and Pacific Coconut Commodity or APCC. For all of APCC's members, coconut commodity has a significant role in their national economy. The importance of this commodity to country's economy may become proponent factor for the Asia and Pacific region to occupy nearly 90% of world production in coconut (Herman, 2006:2). The

members of APCC that listed as the biggest producers of coconut commodity are the Philippines, Indonesia, India, and Srilanka.

Indonesia is the second biggest producer of coconut commodity in the world, with 18% market share from all coconut commodities that being worldwide traded. (Muslim, 2006:1). Coconut has a potential as an export commodities because almost everything that comes from a coconut tree can be produced into something that have an economic value in Indonesia. In general, there are four main parts of coconut that can be produced into something that have an economic value, they are (1) the coconut fruit, (2) the coconut tree, (3) the coconut stick and (4) the coconut flower (for brief illustration of coconut industrial tree in Indonesia see Annex 1). However, the domestic industries still only using the fruit and the tree as its raw materials to their production process. The fact that almost everything in coconut tree parts mostly can be produced into something, is probably one of the reasons for sometimes this plant usually called 'the tree of life'.

In world market of coconut, Indonesia not only acts as an exporting country, but also as an importing country, fortunately, the export's value is far exceeding the import's value. According to data from Ministry of Agriculture, in its Tree Crop Estate Statistics of Indonesia 2007-2009, in 2007, there are five commodities in coconut that being traded by Indonesia. They are (1) Copra, (2) Coconut oil, which consists of crude coconut (copra) oil, fraction unrefined coconut (copra) oil, refined coconut oil, and refined bleached deodorised (RBD) coconut oil, (3) Desiccated coconut, which consists of fresh or dried desiccated coconut, and other than fresh or dried desiccated coconut, (4) Oil-cake and other solid residues of coconut, and (5) Coir coconut fibres, which consists of raw coir coconut fibres, and processed coir coconut fibres. The data is shown in table 1.1.

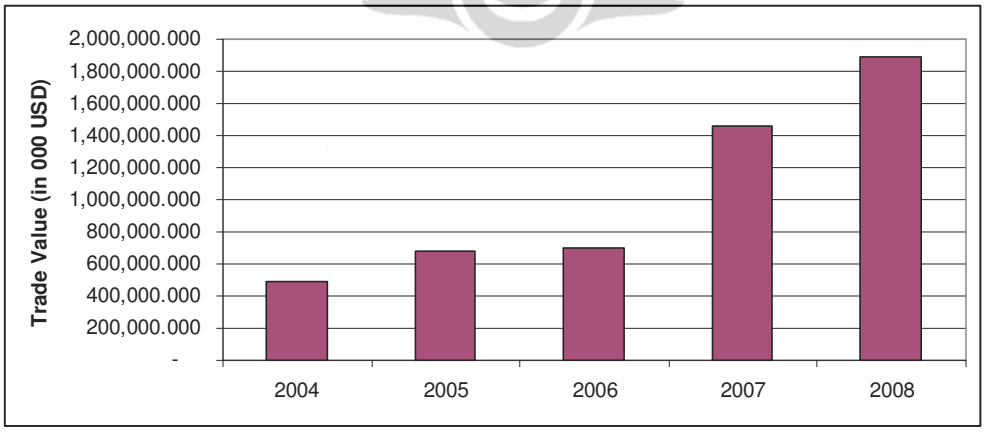
Despite there is some difference in data shown in table 1.1 (from central bureau of statistic as written in Tree Crop Estate Statistics of Indonesia 2007-2009 published by Ministry of Agriculture) with the data shown in Annex 2 (from APCC as written in Allorerung, 2009). In general, they are similar data.

Table 1.1 – Indonesia's Coconut Export and Import in 2007

No.	Commodity	Export		Import	
		Volume (in Tons)	Value (in 000 USD)	Volume (in Tons)	Value (in 000 USD)
1	Copra	46,919	8,821	191	50
2	Coconut Oil				
	- Crude Coconut (Copra) Oil (CCO)	606,827	466,538	7,264	3,263
	- Fraction Unrefined Coconut (Copra) Oil	90,747	73,154	3	1
	- Refined Coconut Oil	17,673	11,242	-	-
	- Refined Bleached Deodorized (RBD) Coconut Oil	24,676	19,476	99	76
3	Processed Coconut				
	- Desiccated Coconut	60,648	46,446	263	348
	- Other then Desicated Coconut	77,515	30,315	1,546	508
4	Oil-cake and other solid residues of Coconut	323,288	36,371	-	-
5	Raw Coir Coconut Fibres	8,458	1,199	16	15
6	Processed Coir Coconut Fibres	13,343	1,822	-	-

Source: Central Bureau of Statistics in Tree Crop Estate Statistics of Indonesia 2007-2009 of Coconut

In world market, according to data obtained from World Integrated Trade Solution (WITS) Programs, Indonesia's export performances in coconut from 2004 up to 2008 are constantly increasing. In 2004, the export value is USD 494,757,687 but in five years after, in 2008, it reaches USD 1,893,269,741. This export value increase significantly up to 3.8 times from it was in 2004, as it is shown in figure 1.1. From the figure, it is shown that the significant increase happens in 2007 and 2008.



Source: WITS, processed

Figure 1.1 – Indonesia's Export Performances in Coconut

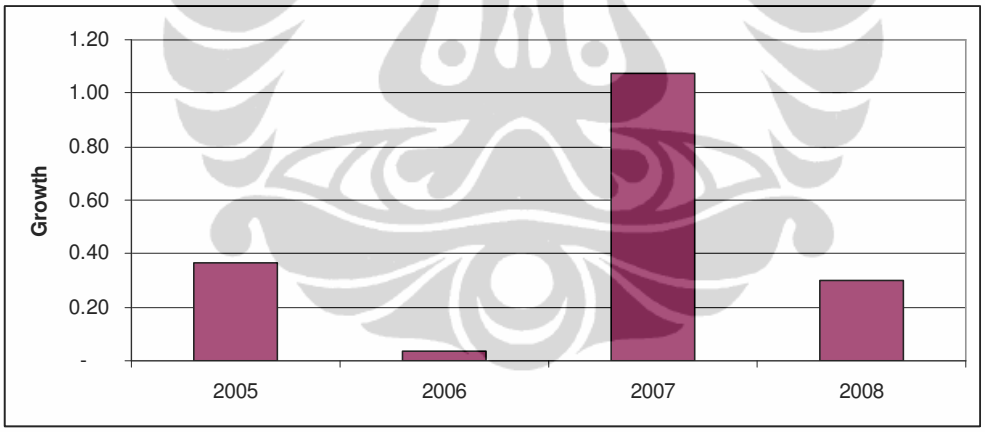
Meanwhile, the growth of Indonesia's coconut export in the world market is shown in table 1.2, details can be seen in Annex 3.

Table 1.2 – The Growth of Indonesia's Coconut Export in the World

Year	Reporter Name	Partner Name	Trade Value (in 000 USD)	Growth
2004	Indonesia	World	494,757.687	-
2005	Indonesia	World	676,748.236	0.37
2006	Indonesia	World	702,575.027	0.04
2007	Indonesia	World	1,457,621.549	1.07
2008	Indonesia	World	1,893,269.741	0.30
			Growth Trend	31.19

Source: WITS, processed.

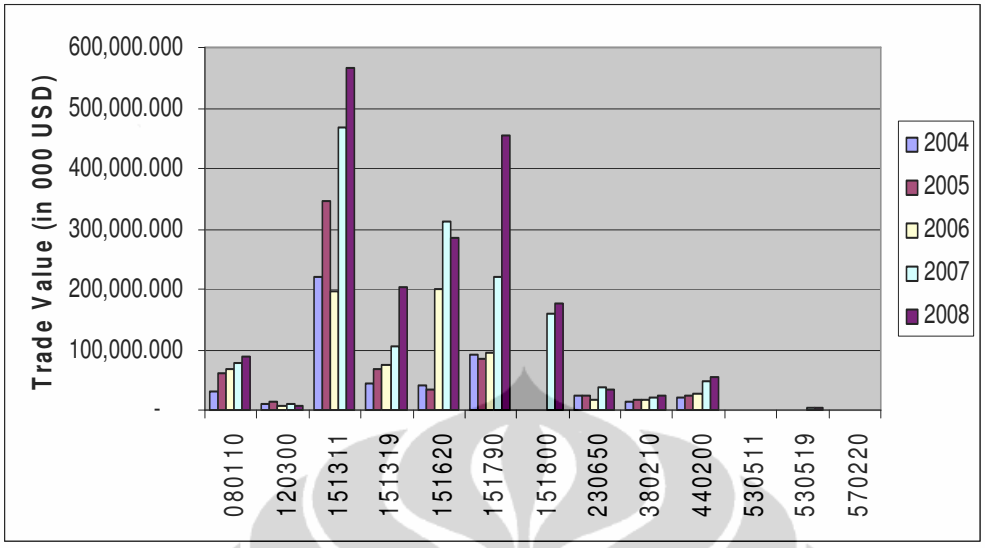
According to table 1.2 above, from 2004 up to 2008 Indonesia's exports growth is always positive which is a good indicator for the economy, but it still very fluctuative, the illustration is shown in figure 1.2 .



Source: WITS, processed.

Figure 1.2 – Indonesia's Export Growth Performances in Coconut

From figure 1.2, in 2005, Indonesia export's growth in coconut is 0.37% from the previous year. In 2006, Indonesia was experiencing the lowest growth during period of 2004 – 2008 which is 0.04%. But in next following year, in 2007, it reaches the highest growth as much as 1.07%. Then in 2008 it decreases again into 0.30%. This fluctuative growth of coconut showing that Indonesia's export is not stable in the world market.



Source: WITS, processed.

Figure 1.3 – Indonesia's Export Trend and Value in Coconut

Figure 1.3, as illustration from Annex 3, is showing the trend of Indonesia's export value of coconut in specific HS codes. In HS 530511, HS 530519, and HS 570220, unfortunately, Indonesia's export value is very small compare to others so it is not clearly showed in the figure. From all HS, the highest trend is obtained by HS 151800 which is 359.52 while the lowest trend is obtained by HS 120300 which is -13.90. The highest export's value is obtained by HS 151311 while the lowest is HS 570220.

The Ministry of Trade (MoT) also had its program to support the export lead strategy, in which one of them is called the Road Map Project. The Road Map Project from Ministry of Trade is focus in developing competitiveness of 10 main products, 10 potential products and 3 service sectors in Indonesia[1]; however, coconut is not yet included in this program for now, maybe because its export's value still not significant compare to any commodities listed in the program.

[1] The Road Map Project is specifically focus in 10 main products consist of: [1] Shrimp, [2] Coffee, [3] Crude Palm Oil (CPO), [4] Cocoa, [5] Rubber, [6] Textiles and Textile Products (TTP), [7] Footwear, [8] Electronics, [9] Automotives Components, and [10] Furniture. Next, 10 potential products which consist of: [1] Handicrafts, [2] Fish and Fisheries Products, [3] Medical Herbals, [4] Leather and Leather Products, [5] Processed Foods, [6] Jewelery, [7] Essential Oils, [8] Spices, [9] Non-Paper Office Supplies, and [10] Medical Equipments. And finally, 3 service sectors which consist of: [1] Construction Sectors, [2] Information Technology Sectors, and [3] Labor Sectors.

However, in Indonesia, almost 60% from total production of the coconut that being produced in domestic are consumed by its people in fresh coconuts form and all of what is remain then is consumed as raw material for coconut industries (Allorerung, 2009:1). The products which produced by industries will be consumed in domestic market and export market. So, the proportion of Indonesia's export in coconut still at small level capacity compare to its production.

Furthermore, with the development on environtmental and public health awareness in the international societies, the demand for environtmental friendly products would increase in worldwide. The coconut commodity which is well-known as an environtment friendly commodity, due to less waste it produced, are being predicted to had an increasing demand in the future, especially on healthy products and art products. The prospect of this commodity is very interesting.

1.2 Research Objective

The objective of this research is to analyze Indonesia's export competitiveness in coconuts commodity which using methods that will consist of:

1) The Revealed Comparative Advantage (RCA) method;
2) The Constant Market Share Analysis (CMSA) method.

1.3 Research Coverage

In order to avoid a broad discussion and to have no deviation with the topic discussed, the coverage of this research is limited to some issues as follows:

1. The analysis will be focused on competitiveness of Indonesia's coconut commodity, as a results from using the RCA method and the CMSA method in the research.
2. The trade values in coconut will be taken from trade value data in 6 digits level of Harmonized System (HS) for products which can be considered as a part of coconut commodity, as it listed in table 1.3 below. The basic

reason for using the 6 digits level of HS data, is because it is more specific in product in which not too detail.

Table 1.3 – The List of HS Codes of Coconuts

Category	HS	Product Description
Coconuts	080110	Coconuts, fresh or dried
	120300	Copra
	151311	Coconut (copra) oil crude
	151319	Coconut (copra) oil or fractions simply refined
	151620	Vegetables fats and oils and their fractions
	151790	Edible preparations of fats and oils and their fractions
	151800	Vegetable fats and oils and their fractions, boiled, oxidised, dehydrated, sulphurised, blown, polymerised by heat in vacuum or in inert gas, or otherwise chemically modified
	230650	Coconut or copra oil-cake and other solid residues
	380210	Activated carbon
	440200	Wood charcoal
	530511	Coconut (coir) fibre raw
	530519	Coconut (coir) fibre, processed not spun, tow and waste
	570220	Floor coverings of coconut fibres (coir)

3. The trade value in coconuts commodity will consists of the value of exports and the value of imports. The time period of the data is taken from 2004 up to 2008.

1.4 Research Methodology

The analysis of this research is using quantitative methods. In order to measure the competitiveness level of Indonesia's coconuts, this research will perform competitiveness measurements that will creates competitiveness index. The tools that will be used for competitiveness measurement in this research are: The Revealed Comparative Advantage (RCA) method and The Constant Market Share Analysis (CMSA) method.

The Revealed Comparative Advantage will be used to assess the comparative advantage level for Indonesia's coconut export to the world. In brief, The RCA method will creates RCA index that would indicates Indonesia's comparative advantage or comparative disadvantage position in

world market of coconut commodity. If Indonesia has comparative advantage then Indonesia has strong competitiveness in this commodity, otherwise, if Indonesia has comparative disadvantage then Indonesia has weak competitiveness in this commodity. The bigger the RCA index, it indicates more stronger competitiveness in related commodity.

The Constant Market Share Analysis method will be used to analyze the competitiveness of Indonesia's coconut. The reason of choosing this method is because CMSA provides information of export's competitiveness in its partner market. This analysis prepares a set of statistic indicator to know the availability of the country in managing export contribution to all import markets in certain of period. There are four parameters in CMSA model. Those are standard growth, commodity-composition effect, market distribution and competitivenes effect (Suprihatini, 2005:5).

The data used in this research based on secondary data which obtained from Indonesia's trade value in world market of coconut commodity in related to its partner's countries. The data is taken from the World Integrated Trade Solution (WITS) program.

1.5 Writing Organization

The writing organization is expected to be able to give a brief illustration on the content of the thesis. This thesis consists of six chapters and it is systematically organized as follows:

a. Chapter 1 – Introduction

This chapter is an introduction chapter. It will explain about the background of the research, the objective of the research, the coverage of the research, the methodology that will be used in the research, and also the writing organization.

b. Chapter 2 – Theories of International Trade and Export Competition

This chapter is a literature study chapter. It will explain the role of the international trade, the international trade theories that would basically consist of classical economist's theory and modern economist's theory. It is

also will explain about the importance of competitiveness in international trade.

c. Chapter 3 – An Overview of Indonesia's Coconut

This chapter is a commodity profile chapter. It will explain brief overview on Indonesia's coconut, the diversification on coconut's down-stream products in Indonesia, and the problems in developing harmonized coconut industry in Indonesia.

d. Chapter 4 – Methodologies on Measuring Export Competitiveness

This chapter will describe several methodologies used to analyze the competitiveness of Indonesia's coconut commodity on this research; they are the revealed comparative advantage (RCA) and the constant market share analysis (CMSA).

d. Chapter 5 – Result and Analysis

This chapter will explain about the result and its analysis. The analysis is based on the methodologies mentioned in previous chapter.

e. Chapter 6 – Conclusion and Recommendation

This chapter will conclude the research and provides some recommendation from the author.

CHAPTER 2

THEORIES OF INTERNATIONAL TRADE AND EXPORT COMPETITION

As an impact from the world economic globalization, the international economy is no longer still be consider as a small portions of one country's economy, but in the other way around, one country's economy shall become a small portions of the bigger picture of international economy. Trading between countries in the world is becoming important and an inevitable activity for each country to support their economy. Today, international trade has a major role not only in one country's economy, but also in the world economy, this things happens because of the difference in one country's demand and its productivity advantage compare to any other country's productivity advantage (Puntodewi, 2003:16). The international trade activities would be able to accommodate these two differences among every country in the world.

2.1 The Role of International Trade

According to Todaro (2000), international trade has played a significant role for development process in the developing countries in the world, including in Indonesia. The exports of primary product from the developing countries have contributed greatly to the developing country's total Gross National Products or GNP. Primary product or commodity that commonly consists of agricultural commodity and other trading items which usually being sold or exported without any further processing activities from its original forms, are main export commodity from the developing countries.

In addition, by doing international trade the developing countries will obtain the positive benefits for their economic development. There are four positive benefits in which the developing countries will receive. First, the developing countries will develop its economic and industrial structure according to their comparative advantage. Second, through export the developing countries will increase their economies of scale. Third, the stabilization of foreign exchange revenue through diversified manufacturing

goods. Fourth, technology and skill innovation from other advanced countries (Puntodewi, 2003:10-11).

The international trade is not just involving the process of transfer for any kind of resources and commodities between each country in the world. Together with the economy and people becoming more open, comes the interaction and commercial relations between countries. This thing would be further connected with one country's trade policies, whether it's going to be outward looking policies, inward looking policies or even both of them together in which it will be confusing for some party. If outward looking, it will focus on export promotions and trade liberalizations. In the other side, inward looking, it will focus on domestic protectionism.

2.2 Theory of International Trade

According to Salvatore (2007) Economics as an organized science can be said to have originated with the publication in 1776 of "The Wealth of Nations" by Adam Smith. However, writings on international trade preceded this date in such countries as England, Spain, Portugal and the Netherlands as they developed into modern national states. Specifically, during the seventeenth and eighteenth centuries a group of men (merchants, bankers, government officials and even philosophers) wrote essays and pamphlets on international trade that advocated an economic philosophy known as mercantilism.

In brief, the mercantilists suggested that the way for a nation to become rich and powerful was to export more than its import. Thus the government had to do all in its power to stimulate the nations export and discourage and restrict imports. This way of trading would result that one nation could gain only at the expense of other nations, so there is no incentive doing international trade for the losing country. However, this mercantilism is still alive and well even in the twenty first century like today, in the form of many restriction on international trade for whatever the reason they were being applied by both, developed and developing countries.

2.2.1 Classical Theory

In the classical theory of economies, there are two famous theories that commonly used as underlying reason for nations do international trade. They are the theory of Absolute Advantage and the law of Comparative Advantage. Absolute advantage, however, can explain only a very small part of world trade today, such as some of the trade pattern between developed and developing countries. Most of world trade, especially trade among developed countries could not be explained by absolute advantage. Indeed, absolute advantage will be seen to be only a special case of the more general theory of comparative advantage.

The Law of Comparative Advantage

David Ricardo (1817) published his "Principles of Political Economy and Taxation", in which he presented the law of comparative advantage. This is one of the most important and still unchallenged laws of economics, with many practical applications.

According to the law of comparative advantage, "*even if one nation is less efficient than (has an absolute disadvantage with respect to) the other nation in the production of both commodities, there is still a basis for mutually beneficial trade. The first nation should specialize in the production of and export the commodity in which its absolute disadvantage is smaller (this is the commodity of its comparative advantage) and import the commodity in which it's absolute disadvantage is greater (this is the commodity of its comparative disadvantage)*".

There is one (not very common) exception to the law of comparative advantage. This occur when the absolute disadvantage that one nation has with respect to another nation is the same in both commodities. This requires slightly modifying the statement of the law of comparative advantage by adding this statement following the previous one:"… *unless the absolute disadvantage (that one nation has with respect to the other nation) is in the same proportion for the two commodities*."

In his theory, Ricardo based on a number of simplifying assumptions, such as: (1) only two nations and two commodities, (2) free trade, (3) perfect mobility of labor within each nation but immobility between the two nations, (4) constant cost of production, (5) no transportation cost, (6) no technical change, and (7) the labor theory of value. While assumptions one through six can easily be relaxed, assumption seven is not valid and should not be used for explaining comparative advantage.

2.2.2 Modern Theory

In the modern theory of economies, the well-known theory is the Heckscher-Ohlin theory. According to classical economists, comparative advantage was based on the difference in the productivity of labor (the only factor of production they explicitly considered) among nations, but they provided no explanation for such a difference in productivity, except for possible difference in climate. The Heckscher-Ohlin theory goes much beyond that by extending the trade model to examine the basis for comparative advantage and the effect that trade has on factor earnings in the two nations.

The Heckscher-Ohlin Theory

Eli Heckscher (1919) published an article entitled "The Effect of Foreign Trade on the Distribution of Income" in which he presented the outline of what was to become the "modern theory of international trade". The article went largely unnoticed for over ten years until Bertil Ohlin (1933) a former student of Heckscher, advancing the theory and publish his famous book "Interregional and International Trade".

The Heckscher-Ohlin Theory is based on a number of simplifying assumptions, as follows: (1) there are two nations, two commodities and two factors of production (labor and capital), (2) both nations use the same technology in production, (3) one commodity is labor intensive and one commodity is capital intensive, in both nations, (4) both commodities are produced under constant return to scale in both nations, (5) there is incomplete specialization in production in both nations, (6) tastes are

equal in both nations, (7) there is perfect competition in both commodities and factor markets in both nations, (8) there is perfect factor mobility within each nation but no international factor mobility, (9) there are no transportation cost, tariffs, or other obstruction to the free flow of international trade, (10) all resources are fully employed in both nations, (11) international trade between the two nations is balanced.

The Heckscher-Ohlin theory is presented in the form of two theorems: the Heckscher-Ohlin theorem (which deals with and predicts the pattern of trade) and the factor-price equalization theorem (which deals with the effect of international trade on factor prices). The Heckscher-Ohlin theorem states as follows: *"a nation will export the commodity whose production requires the intensive use of the nation's relatively abundant and cheap factor and import the commodity whose production requires the intensive use of the nation's relatively scarce and expensive factor"*. The factor-price equalization theorem states as follows:"*international trade will bring about equalization in the relative and absolute returns to homogenous factors across nations"*.

The Heckscher-Ohlin Theory was a great contribution to the literature in that it was one of the first international trade theories that was predicated on national differences in factors of production such as land, labor and capital. Unfortunately, this theory makes the assumption that factor prices depend largely on the factors themselves. It does not take into consideration the realities of the marketplace such as the role of governments or external forces on factor markets, such as trade blocs (Sledge, 2003:1).

According to Esterhuizen (2006) the lack of HO model is still limited in two traded goods. The HO model assumes that technology is identical, but production methods are different between countries. Different production methods indicate different combinations of capital and labor. This is means that different countries may choose different methods to produce depending upon factor price in those countries.

Therefore, production and trade pattern are explained by different factor endowments or factor prices (Mahanani, 2009:7).

2.3 The Importance of Competitiveness on International Trade

According to Hawkins and Meindertsma (2004) competitiveness is defined as the ability of a country to increase its share of domestic and export markets where a country has a comparative advantage in a product when it can produce at a lower opportunity cost than other countries. Increased competitiveness is reflected in sustained growth in productivity of producers, firms and industry clusters in the agribusiness sector and a result of sound business strategies and supportive micro-economic and macro-economic conditions. Thus, profitability is the most important element of competitiveness, as it relates benefits (revenues) and costs (expenditure), and productivity is the most important underlying factor. Anything what would increase profitability and productivity, therefore, would increase competitiveness. Higher efficiency in production, cost reductions, higher quality, lower risk, higher added value, all increase competitiveness, so all factors influencing these affect competitiveness (Rachman, 2005:3).

According to Freebairn (1986), competitiveness is an indicator of ability to supply goods and services in the location and form and at the time they are requested by customers, at prices that are as good as or better than their competitors, while earning at least the opportunity cost of returns on resources employed. Institute of Mathematical and Economic Sciences Applied (ISMEA) also used this definition to analyze the challenges of global competition on the European Agro-Food system. Two types of competition are included in this definition. First is the competition on domestic and international markets and ability to gain and maintain market shares. Secondly, the competition in factor markets, where those factor employed in producing the goods have to earn at least the opportunity costs (Mahanani, 2009:11).

Today, country are compete against each others in the world market in order to expand their country's domestic products market share, as largest as

possible, because the world market are ready to be explored for every one, in more specific, for every country's domestic producers. In this situation, contests between each country will be inevitable. When contests exist as a part of daily life, it is nearly impossible to avoid thinking in win-lose term basis. Then, competition comes in naturally for every one. In this kind of situation, the way of thinking to create win-win solutions is become much more and more difficult to accomplish. As a result, each country would do their best to increase their competitiveness in order to get the largest share available provided in the world market.

2.4 Previous Studies on Competitiveness

This thesis is using Revealed Comparative Advantage to indicate whether Indonesia is on its comparative advantage or comparative disadvantage position in coconut commodity's market. While the Constant Market Share Analysis is used as a tool to give information of export's competitiveness in its partner market.

According to Hadi et al (2004), CMSA gave information that Indonesian agriculture product had lower growth than other ASEAN members in its internal markets in period of 1999-2001. Similar thing happens in Suprihatini's research (2005); the export's growth of Indonesia's tea is lower than Srilanka, Kenya, China and India. They conclude that composition of Indonesian agriculture was weakened than before, market distribution was worse than other and competitiveness was worse than the Philippines and Thailand. In brief, using CMSA also give information the condition of Indonesia composition product, distribution market and competitiveness (Mahanani, 2009:12).

According to Fahreiza (2008), he researched Indonesia's textile and textile products (TTP) competitiveness in Japan's market by using RCA method and CMSA method as her tools to analyze it. She resulted that competitiveness of Indonesia's TTP industries was under a good condition with increasing trend. Indonesia's TTP can compete with its competitors. Therefore, if the result of CMSA is positive and we have a competitive

product, so the product would be hold to offer to its market, in contrast, if the result of CMSA is negative or our product is not competitive, we should do diversification on product or diversification in market (Mahanani, 2009:12).

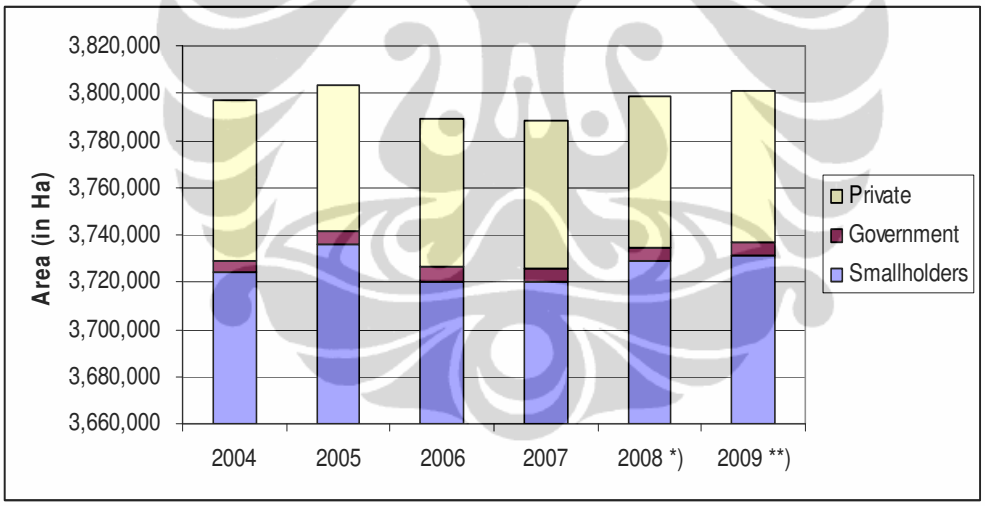
Table 2.1 – Summary of Previous Studies

No.	Researchers	Methodology	Results
1.	Hadi, et al (2004)	CMSA	Indonesian agriculture product had lower growth than other ASEAN members in its internal markets
2.	Suprihatini (2005)	CMSA	The export's growth of Indonesia's tea is lower than Srilanka, Kenya, China and India
3.	Fahreiza (2008)	CMSA and RCA	The competitiveness of Indonesia's TTP industries was under a good condition with increasing trend

CHAPTER 3
AN OVERVIEW OF INDONESIA'S COCONUT

3.1 An Overview of Coconut Commodity

Based on statistics data from Directorate General of Estate – Ministry of Agriculture, in 2007, the national production in coconut commodity almost reaches 3.2 million tons per year in which being produced from almost 3.8 million hectare of coconut plantations area in Indonesia, for more details see in Annex 5. The numbers of coconut plantation areas in Indonesia are very fluctuative from 2004 up to 2009. In 2004, it was 3,797 million hectare. In 2005, it increases to 3,803 million hectare. In 2006, it decreases to 3,788 million hectare, its number even lower than in 2004. In 2007, it decreases again to 3,787 million hectare, as it is shown in figure 3.1.

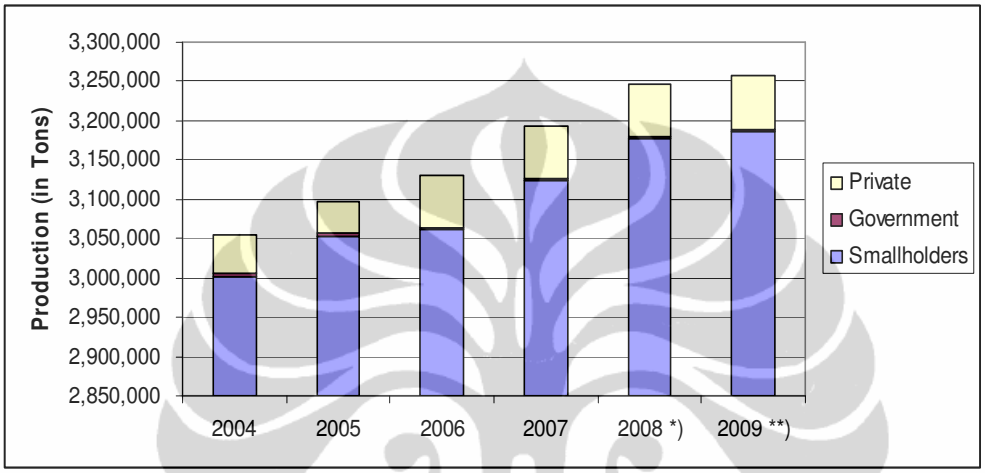


*Notes: *) preliminary; **) estimation*
Source: Tree Crop Estate Statistics of Indonesia, 2007-2009

Figure 3.1 – Coconut Area in Indonesia by Producer (in Ha)

In the other side, the number of coconut production in Indonesia is constantly increasing from 2004 up to 2009. In 2004, it was 3.054 million tons. In 2005, it increases to 3,096 million tons. In 2006, it increases again to 3,131 million ton. In 2007, it increases again to 3,193 million tons. Its illustration is shown in figure 3.2.

Despite that Indonesia's coconut area is decreasing, but its production shows an increasing. This thing happens because in some area tree rehabilitation is established by replacing old tree with younger ones. However, this action is not accompanied with more advanced technology implementation, so it is not significantly increasing national productivity.



*Notes: *) preliminary; **) estimation*
Source: Tree Crop Estate Statistics of Indonesia, 2007-2009

Figure 3.2 – Coconut Production in Indonesia by Producer (in Tons)

It is estimated that almost 60% from the national production is consumed in the form of fresh coconuts, while what is remains then consumed by the coconut's industries. In that case, the proportion of coconut that will be used by the industries will become moreless 1.28 million ton (40%) of copra per year on which then in about 80% will be further processed into copra then into crude coconut oil or CCO, while the remaining (20%) is processed into desiccated coconut, coconut milk and cream by the industries (Allorerung, 2009:1).

In Indonesia, the coconut trees are spreadly planted across the country in which the areas are located on the altitude below 400 meters above the sea level. It is also surely predicted that almost 80% from that area where farmer using to grow the coconut tree are having transportation issues especially when the time is come to harvest the commodity and then sell it to the market and to industries. There also being estimated that about 98%-

99% from all of coconut plantations in Indonesia are smallholders, and moreless about 20%-30% from all of coconut trees are categorized as an old trees which need to be replaced in order to increase their productivity again (Allorrerung, 2009:1).

According to statistics data as shown in table 3.1, during periods of 2007-2009 the national coconut production on average reaches 3.23 million tons per year. In Indonesia, there are six coconut's main production areas. They are (1) Riau, (2) Central Java, (3) East Java, (4) North Sulawesi, (5) Central Sulawesi, and (6) North Mollucas. Based on its average number of production, Riau province is the highest coconut main production area with average production reaches 568 thousand tons per year or equal to 17.59% from the average total production. In the second place is North Sulawesi, with 278 thousand tons or equal to 8.60% from the average total production. While Central Java in the last place with average production reaches 180 thousand tons per year or equal to 5.60% from the average total production.

Table 3.1 – Indonesia's Coconut Production Main Producer (in Tons)

No.	Provinces	2007	2008 *)	2009 **)	Average
1	Riau	567,088	567,143	571,517	568,583
		17.76	***17.47***	***17.54***	***17.59***
2	Central Java	179,657	181,333	181,653	180,881
		5.63	***5.58***	***5.58***	***5.60***
3	East Java	233,172	247,780	248,285	243,079
		7.30	***7.63***	***7.62***	***7.52***
4	North Sulawesi	287,461	273,112	273,657	278,077
		9.00	***8.41***	***8.40***	***8.60***
5	Central Sulawesi	189,268	189,426	189,398	189,364
		5.93	***5.83***	***5.81***	***5.86***
6	North Mollucas	197,378	232,187	232,651	220,739
		6.18	***7.15***	***7.14***	***6.83***
7	Others	1,539,242	1,556,199	1,560,612	1,552,018
		48.20	***47.92***	***47.90***	***48.01***
	TOTAL	3,193,266	3,247,180	3,257,773	3,232,740

Notes:
**) preliminary*
***) estimation*
Number that bold and italics is percentage from total production

Source: Tree Crop Estate Statistics of Indonesia 2007-2009 of Coconut

Though coconut is sometimes use to be called 'the tree of life', right now only the tree and the fruit parts that already commercially processed by the coconut industries. The industry using the tree part has produces many products such as meuble, souvenir and houseparts. In the other side, industry in which using the fruit parts has been producing products such as coconut oil, oil-cake and solid residues, shell charcoal, activated carbon, desiccated coconut, coconut milk and cream, coir fibres, matrasses, nata de coco, and many other coconut products.

According to statistics data from APCC, it recorded that only nine items of product in which Indonesia exports in 2007, for more details see in Annex 2. In comparison with the other main exporter of coconut's products such as the Philippines, India and Srilanka, Indonesia is left behind in the process of developing its coconut's products industries, especially on industries that use non-coconut's meat materials in their production line. This issue is proven with the fact that in the last three decades Indonesia has less variety of export products in coconut and its foreign exchange revenue composition has not change significantly (Allorerung, 2009:2).

Indonesia's coconut export is still focus in exporting primary products and raw materials in which has less value added in it. This fact is shown in value to volume ratio as it is shown in Annex 2. It is not a favorable condition for Indonesia while other countries have more value added in their export products. For illustration, India in which exports almost 20 items of products in 2007 has proportions only about 4.5% of primary products and raw materials. Then, Srilanka has 18.5% proportion of primary products and raw materials. Next, the Philippines have 71.2% proportion of primary products and raw materials. Finally, Indonesia has 87% proportion of primary products and raw materials.

The other three main exporters already exploring the potential of its coconut's industries by developing their industries to produce secondary products in which have more value added in it. They know that this could provide them more profit due to significant increase on its product's price with further processing using advanced technology. To illustrate the

significant increase on secondary product value added, it is provided in Annex 2. Look at the difference in price rate of shell charcoal and activated carbon. Export value of shell charcoal is USD 75,000 for 610 MT, so the price per MT is USD 122.95 per MT. But after further processed into activated carbon the export value turn into USD 21,928,000 for 26,325 MT, so the price per MT is USD 832.97 per MT. The price then increases in as much as USD 710.02 per MT after being further processed, 5.7 times higher than as raw materials.

In Indonesia, besides it can produces coconut oil, from fresh coconuts that being produced per year it could also provided shell charcoal, coir fibres, and coconut liquids in which all of these potential were left out by the modern coconut industries, then it is only processed by traditional industries in Indonesia.

3.2 Diversification on Coconut Downstream Products in Indonesia

Coconut is the only one commodity that provides vast opportunity to develop various industries with many level of enterpreneurship scale including the creative industry (Allorerung, 2009:4). This is potential from coconut commodity. The coconut industries in Indonesia can be grouped based on the nature of product into two main groups which are: (1) the upstream industries and (2) the downstream industries.

The upstream industries usually consist of producer for primary processed products in which provide raw materials for the downstream industries. Their products mainly are low value added products. In the other side, the downstream industries are the extention for the upstream industries. They use raw materials that being provided by the upstream industries and further process it into become more value added products before selling it to the market. In contrast with the upstream industries, the downstream industries are wide open for development in their products. This is where creative industry can play its role to increase the value added of the products. Furthermore, this is the area for which diversification in products are important to strengthen the product's competitiveness.

There are five main parts contained in fresh coconut fruits. They are (1) coir, (2) shell, (3) meat, (4) water, and (5) flower. The first four parts: the coir, shell, meat and water can be further processed into various kinds of products, while the last parts, flower can produces liquids in which in Indonesia is called *nira*.

3.2.1 Coir

In a similar direction with the development of global awareness on environmental and public health issues, demand on coconut coir's products is also showing an increasing trend. Furthermore, the variety of products in which created from coconut's coir also increasing in the industries. According from APCC statistics data, India and Srilanka are the biggest producers in this products with their exports volume are 92.586 tons and 89.899 tons in 2007. Indonesia only exports raw fibres with exports volume only 8.458 tons in 2007 (Allorerung, 2009:5).

There are three components contains in coconut's coir such as fibre, bristle and dust. This component then can be further processed into various products that have more value added in it such as rubberized fibres, matrases, handicrafts, geotextile, rooftops, hardboard, coco peat, compost and electric isolator, as it is illustrated in figure 3.3.

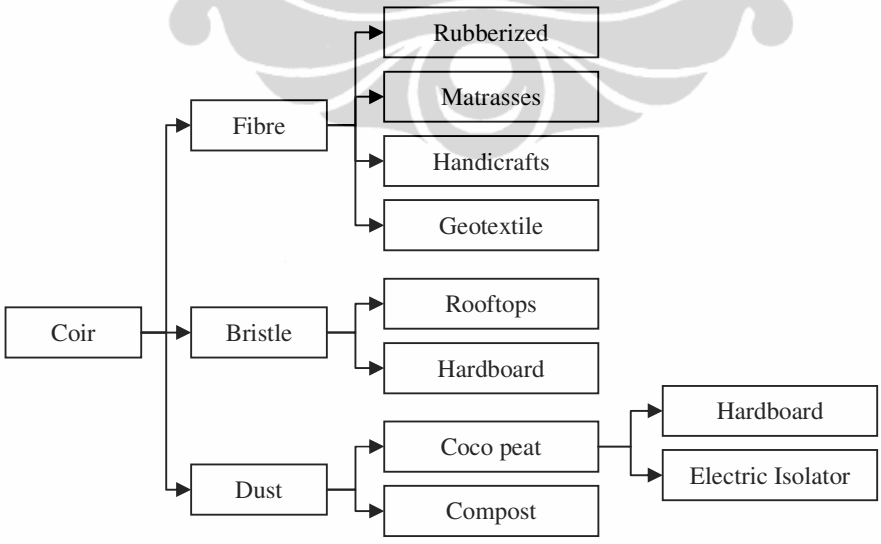


Figure 3.3 – Coconut's coir industrial tree

3.2.2 Shell

In fresh coconuts, after its coir is removed then comes the shell. The shell part role is protecting the meat and liquid which it contain insides. This part then can be further processed into three types of products which are categorized as powder, handicrafts and charcoal. Further processing could produce products such as mosquito's repellant, art works or souvenirs, household's products, and personal items and charcoal. Using charcoal, industries can produce a more high value added product which called activated carbon. The illustration of coconut shell's industrial tree is shown in figure 3.4.

Activated carbon processed from coconut shell is very competitive in the market, because it's high quality and its natural resource sustainability. Activated carbon has been used in pharmaceutical industries, mining, and purifying. This product is now produces into filters and air purifier to absorb air polutants and unwanted aromas in the rooms. In the process of making shell charcoal it produces byproduct i.e. liquid smoke in which are a natural chemical preservatives.

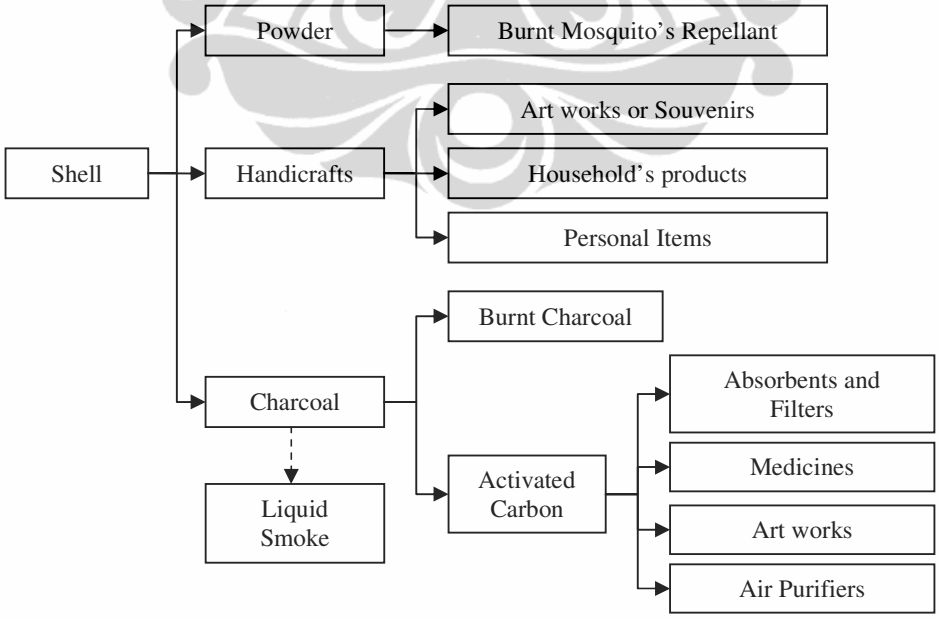


Figure 3.4 – Coconut's shell industrial tree

3.2.3 Meat

This part of coconut has a lot more products produced compare to the other parts; either it is eatable or non-eatable products. The industries are mostly using this part of coconut in their production's raw materials. The processes in which using the meat part can be done directly from fresh coconut meat or through drying process into become copra. The main results from this part are desiccated coconut, cream and coconut oil especially virgin coconut oil or VCO. Figure 3.5 will illustrates the industrial tree of coconut's meat.

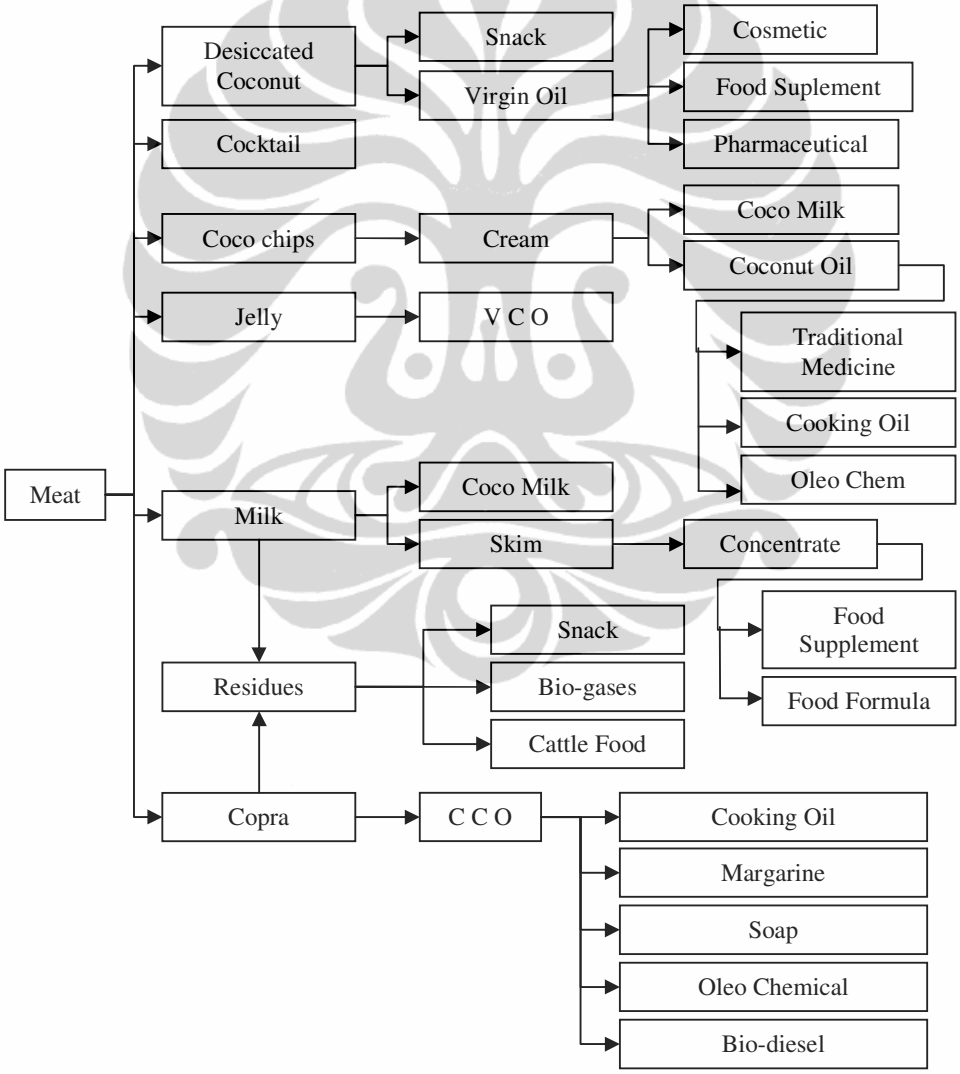


Figure 3.5 – Coconut's meat industrial tree

3.2.4 Water

This part of coconut in Indonesia usually drinked directly from the fresh coconut, or if in the process to extract the meat parts it will be wasted. However, this part can be produced into softdrinks, coco vinnegar, and nata de coco that are a fibre food like vetegables. Today, nata de coco is produced from household industries up to major industries and all of its products are fully consumed by the domestic market.

3.2.5 Flower

This part of the coconut is not common directly processed into become any products. However, by hurting this part, farmer can extract some sweet liquid in which in Indonesia usually called *nira*. Each tree's branch can produces between two up to three litres of nira per day with sugar level about 11% - 13%. The main product that produced from nira is brown sugar or in Indonesia usually called *gula merah*. This product is used in food industry, especially to produce sweet sauce or *kecap*. Demand on brown sugar recently had increase beyond its production capacity, it is comes from famous stars hotels and supermarkets. Aside from producing brown sugar, nira also used to produce bio-ethanol for its promising potentials.

3.3 Problems on Developing Harmonized Coconut Industry in Indonesia

Though the potential from coconut as a raw material for many industries is very promising, however, its industrial development is not significantly happens in Indonesia. While in many countries such as India, Srilanka and the Philippines, even now followed by Vietnam and China, their coconut small industries and its creative industries are being rapidly developed.

It seems that both big scale industry and the small ones has been constantly struggle to grow in Indonesia, despite the government had been introducing many methods and schemes, such as coconut's special zoning industries (*kawasan industri berbasis kelapa*) and harmonized processing

units (*unit pengolahan hasil terpadu*). This fact, however, indicates that something is gone wrong in the application of coconut industrial development policy, or at least there are unsolved technical or non-technical issues involved in the process.

According to Allorerung (2009), there are four factors that mainly causing the coconut's industry in Indonesia facing its hard time in growing or advancing. This factors is should be considered as a threat to the coconut's industry in Indonesia. The first factor is the investment policy chosen by the coconut's investors. Second, it is the industrial structure in Indonesia. Third, it is the development strategy. Finally, it is the infrastructure and institutions problems. All of these factors would be further explained.

First, it is the investor's investment policy. The investors in CCO's industries in domestic have a significant role that will determines further processing of CCO's products to become more value added products. However in reality today, it seems that many investors in Indonesia already satisfied with the profit margin they had as processors and exporters from only CCO's products, nothing more. They take no risk to invest in more advanced technology in order to produce more value added products derived from CCOs. This is the reason for Indonesia's exports in coconut commodity are dominated with CCOs.

Second, it is the industrial structure in Indonesia. The majority industries such as CCO, coir and charcoal's industry are advancing without considering on the raw materials sustainability and they are not maximizing the benefits produced from their products. Those industries are commonly designed in large capacity, so they must collect raw materials in large number too. However, coconut plantations in Indonesia mostly, not to say entirely, are smallholders that could only provides small capacity of raw materials. As a results, the costs needed to collects all those raw materials is rising high, and the farmer take the consequences, they got low price for their crops. The low price then reduces the farmer incentives or motivation to collect their harvest and to sell it to industries. Then, industries will also

having trouble to get raw materials for their production. In the end, both of them, the farmer and the industry are suffering its losses.

Third, it is the development strategy. In Indonesia, the development strategy for coconut industry is not based on a masterplan strategy, so there is no grand strategy to lead the whole coconut industrial systems to form a solid coconut industrial system even thoroughly to its product's branches. The major industry and small-medium industry are developing on its own strategy, and many provinces in the country are self-planned on its coconut industry's development program without consenting to other province's programs. As a result, there is oftenly happens a competition in getting a raw materials between provinces or otherwise their harmonized processing unit will not reaches its economies of scale. Futhermore, coconut based creative industry is not yet developed in the strategy.

Finally, they are the infrastructures and institutions problems. In infrastructures, the problem is that coconut plantations area which mostly are smallholders, almost entirely located in difficult area to access with, and not close to the main road or markets. The infrastructures are inadequate to accomodates the low transportation costs, in which it will cause additional efforts on energy and fuels to transport the commodity from the smallholders to the industries or to the market. This high cost on transportation then will push crop's price that being sold by farmers to lower rate.

In institutions, the problems is that among the five main tree crop estates in Indonesia today, coconut is the only one that has less attention from the government, especially with special treatments in government tree crop estates revitalization programs. The development program in coconut commodity still in the level of pilot plan projects and there is no special insentives to drives the industry to made significant breakthroughs.

CHAPTER 4

METHODOLOGIES ON MEASURING EXPORT COMPETITIVENESS

The competitiveness index of Indonesia's exports will indicates the performance of Indonesia's exports in comparison with its competitors. This index would become an indicator to analyze where the position and the competitiveness of Indonesia's export commodities. Each country may have the advantage or gains from trade if the total cost of producing goods in domestic is lower than the total cost of producing similar product in any other countries. Therefore, based on this concept, every country in the world could increase their benefits through specialization, in which they can produce goods more efficiently and become more competitive from other countries.

This research is analyzing Indonesia's export competitiveness in coconut using competitive index in which resulted from two methods that commonly used in analyzing competitiveness. They are the Revealed Comparative Advantage method and the Constant Market Share Analysis method to analyze Indonesia's competitiveness in coconuts.

4.1 The Revealed Comparative Advantage (RCA)

The Revealed Comparative Advantage or RCA are one common tool in assessing one country's comparative advantage in the world market. An argument in which support this method is that the flow of traded goods between each country is an indicator of one country's comparative advantage. RCA measures one country commodity's export performances by evaluating the performance of its commodity in the country's total exports in comparison with the commodity's market share in the world trade. The formula for RCA index is represents as follows:

$$RCA = \frac{X_{ij} / X_j}{X_{iw} / X_{tw}}$$

where:

X_{ij} represents the value of country j's export of commodity i

X_j represents the value of country j's total exports

X_{iw} represents the value of world exports of commodity i

X_{tw} represents the value of world total exports (of all commodities)

The formula above is used to get RCA index results. The analysis of the RCA index can be divided into two categories:

- RCA index > 1 ; this means that country j has a revealed comparative advantage in commodity i
- RCA index < 1 ; this means that country j has a revealed comparative disadvantage in commodity i

This RCA method has been used many times in many cases that involves with the study related to international trade. This method had been used by Balassa, Maule, and Kwon. Balassa used this method to assess comparative advantage and comparative disadvantage in manufacture's products from largest exporter' s countries such as European Union (EU), the United States (US) and Japan. While Maule and Kwon used this method to assess the trade complementary issues related with free trade area (Puntodewi, 2003:45-46).

Using this method to assess competitiveness, however, has some limitations. First, RCA methods assume that all countries export all commodities, on which in some countries it does not happens. As a result, the RCA index in one country's commodity is not always indicating that the country has comparative advantage on the related commodity.

Second, RCA index can only explain current or previous trade pattern, it can not detect and predict the commodity's potential competitiveness in the future. However, some alternatives can be done to reduce this limitation. If RCA index is calculated in some periods of time, this index would show some competitiveness trend from some commodity.

Third, RCA index might not indicating the real comparative advantage of some country's commodity, due to its government trade and economic policies such as undervalued currencies, protectionism, export subsidies and many other trade and economic policies. If the government intervention is so dominant in its international trade, the real comparative advantage of some commodity would be distorted. So the RCA index would not be able to indicate the real competitiveness from some commodity. If the government policy is to increase its exports, then RCA index would indicates higher than what it would suppose to be. In the other side, if the government policy is to decrease its exports, then RCA index would indicates lower than what it would suppose to be.

Fourth, the RCA index would not be able to estimates the intra industry trade activities.

4.2 The Constant Market Share Analysis (CMSA)

To measure a product's export competitiveness, there has been improved a lot of competitiveness model analysis. One of them is Constant Market Share Analysis (CMSA). According to Leamer and Stern (1970), in CMSA, a country has lower export growth than rivals because of three reason, such as (1) export has been concentrate in the commodity which has relative lower export growth; (2) export aim to the stagnant country; and (3) the incapability to compete with other countries (Suprihatini, 2005:3-4).

The basic assumption of CMSA method is a constant value on the market share of exporter country (for instance Indonesia) in world market or to particular country in certain of period. The growth of export is different, which was declared by the difference of constant market share export and actual market export, because of the commodity composition effect, market distribution effect and the competitiveness effect. The changing of market share is one of indicator competitiveness to measure the change country's competitiveness to world market or particular country, although the reason of all changing of market share is not the changing of competitiveness (Hadi, 2004:51).

This analysis prepares a set of statistic indicator to know the availability of the country manage export contribution to all import market in certain of period. There are four parameters in CMSA model, these are:

a. Standard Growth

   Standard growth indicates the general standard of export growth of all countries in the world market, or the world to the world export. The growth reflects the export performance of other countries compared to Indonesia. If the standard growth of export is lower than Indonesia's export growth, it means that the export performance of Indonesia is better than the other countries.

b. Commodity-Composition Effect

   Commodity composition effect can be positive or negative. The positive value indicates that the subject country has exported particular product to the country which has the higher growth of demand compared to other countries.

c. Market Distribution Effect

   Market distribution effect can be positive or negative. The value will result in positive value if the subject country distributes its market to the center of growing demand.

d. Competitiveness Effect

   Competitiveness effect indicates the net increase or net decrease on the Indonesia share relatively, to the standard considering the changes in the product composition and market distribution. If the parameter is positive, it means that Indonesia is the strong competitor compared to others. Otherwise, it will be negative if Indonesia is weak (Mahanani, 2009:14-15).

Referring to the general formulation of CMSA, such as applied by Tyers *et al* (1985), the equations used on CMSA analysis are formulated as follows (Suprihatini, 2005:5-6):

$$\frac{E_{(t)}.. - E_{(t-1)}..}{E_{(t-1)}..} = g \qquad \text{(1) standard growth}$$

$$+ \frac{\sum_i (g_i - g) E_{(t-1)i}.}{E_{(t-1)}..} \qquad \text{(2) commodity composition effect}$$

$$+ \frac{\sum_i \sum_j (gij - gi) E(t-1)ij}{E_{(t-1)}..} \qquad \text{(3) market distribution effect}$$

$$+ \frac{\sum_i \sum_j (E_{(t)ij} - E_{(t-1)ij} - g_{ij} E_{(t-1)_{ij}})}{E_{(t-1)}..} \qquad \text{(4) competitiveness effect}$$

where:

$$g = \frac{W_{(t)..} - W_{(t-1)..}}{W_{(t-1)..}}$$

$$g_i = \frac{W_{(t)i} - W_{(t-1)i}}{W_{(t-1)i}}$$

$$g_{ij} = \frac{W_{(t)ij} - W_{(t-1)ij}}{W_{(t-1)ij}}$$

$E_{(t)..}$ = total export value of Indonesia's products at t year

$E_{(t-1)..}$ = total export value of Indonesia's products at t-1 year

$E_{(t)i}$ = total export value of Indonesia's i commodity at t year

$E_{(t)j}$ = total export value of Indonesia's products to j country at t year

$E_{(t)ij}$ = total export value of Indonesia's i commodity to j country at t year

$W_{(t)i}$ = total export value of standard (world) in i commodity at t year

$W_{(t)j}$ = total export value of standard (world) to j country at t year

$W_{(t)ij}$ = total export value of standard (world) in i commodity to j country at t year

$W_{(t)..}$ = total export value of standard (world) at t year

Similar with previous method, which is the Revealed Comparative Advantage (RCA), the Constant Market Share Analysis (CMSA) also has some weaknesses. The weaknesses of CMSA model were explained by Muhammad and Habibah (1993), namely the equation used as the basis to decompose export growth is an identity equation. Therefore, the reasons behind changes in export competitiveness could not be evaluated using CMSA only. The other weakness of CMSA is that the analysis does not take account change in competitiveness of a point of time in the two points of time interval. However, this analysis is useful in assessing trend of commodity product competitiveness produced by a country (Suprihatini, 2005:4).

CHAPTER 5
RESULT AND ANALYSIS

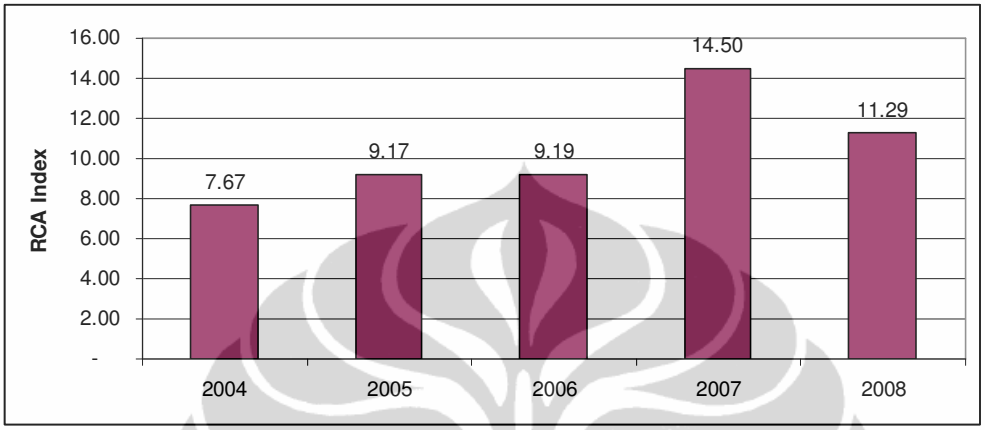
In order to be able to increase Indonesia's export volume and its value for coconut commodity, the information about how competitive Indonesia's coconut commodity in the world market is crucial. In simple illustration, if one country has high level of competitiveness in domestic's commodity compare to its competitors in world market, it will indicates that the demand for that country's commodity is having an increase. Then, followed by an increase in domestic production to fulfill world's demand for their products, as a result, its export's volume and value will be increasing.

To get the information on how competitive Indonesia's coconut commodity in world market does, it is starts with assessing Indonesia's coconut comparative advantage's level in world market. This research is using Revealed Comparative Advantage (RCA) method to assess Indonesia's comparative advantage level in world market. Then it will be followed with Constant Market Share Analysis (CMSA) method to analyze the Indonesia's coconut export competitiveness on its certain markets, the CMSA will be used to assess competitiveness in Indonesia's coconuts main importer countries. These two methods would results RCA index and CMSA index that will be considered as a competitiveness index to support the analysis.

5.1 Result and Analysis of Revealed Comparative Advantage (RCA)

To measure the comparative advantage level for some products, one of the common methods that usually being used is The Revealed Comparative Advantage method or RCA. This method will creates what is called The RCA Index. This index will be used to analyze the product's composition in the country's export in relation to its share in the world trade. This analysis would results that if RCA index is bigger than 1 or (RCA > 1), then the product is considered has comparative advantage. Otherwise, if RCA index is smaller than 1 or (RCA < 1), then the product is considered has comparative disadvantage.

The RCA index for Indonesia's coconut exports as a whole, as it is shown in table 5.1, is being summarized from thirthteen HS codes of coconut in periods of 2004 up to 2008 are illustrated in figure 5.1 below.



Source: WITS, processed.

Figure 5.1 – RCA Index for whole category of Indonesia's coconuts

In figure above, Indonesia's coconut has RCA Index value more than one (RCA Index > 1) in every year during the period of 2004 – 2008, this means Indonesia has comparative advantage on coconut commodity in world market. In 2004, the RCA index was 7.67, then in 2005 it was increase into 9.17, then in 2006 it still increase though it is slightly into 9.19. The RCA index then still increasing until 2007, when it reaches its peak as much as 14.50. Unfortunately, in 2008 the RCA index is decreasing to 11.29, it seems in 2008 Indonesia is facing tough competitors in world market. Although it is decreasing in 2008, but in overall during period of 2004 – 2008 the RCA index of coconuts are showing an increasing trend.

In more specific products, as it is also shown in table 5.1, based on RCA index average, from all of the thirthteen coconut's product exported by Indonesia, twelve products had RCA index more than one. The twelve products are, HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils:

Processed), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 380210 (Activated Carbon), HS 440200 (Wood Charcoal), HS 530511 (Coconut or Coir Fibre: Raw), and HS 530519 (Coconut or Coir Fibre: Processed). In the other side, only one product from all of coconut's products where Indonesia loses its comparative advantage in world market, that is HS 570220 (Floor Coverings of Coconut Fibre or Coir).

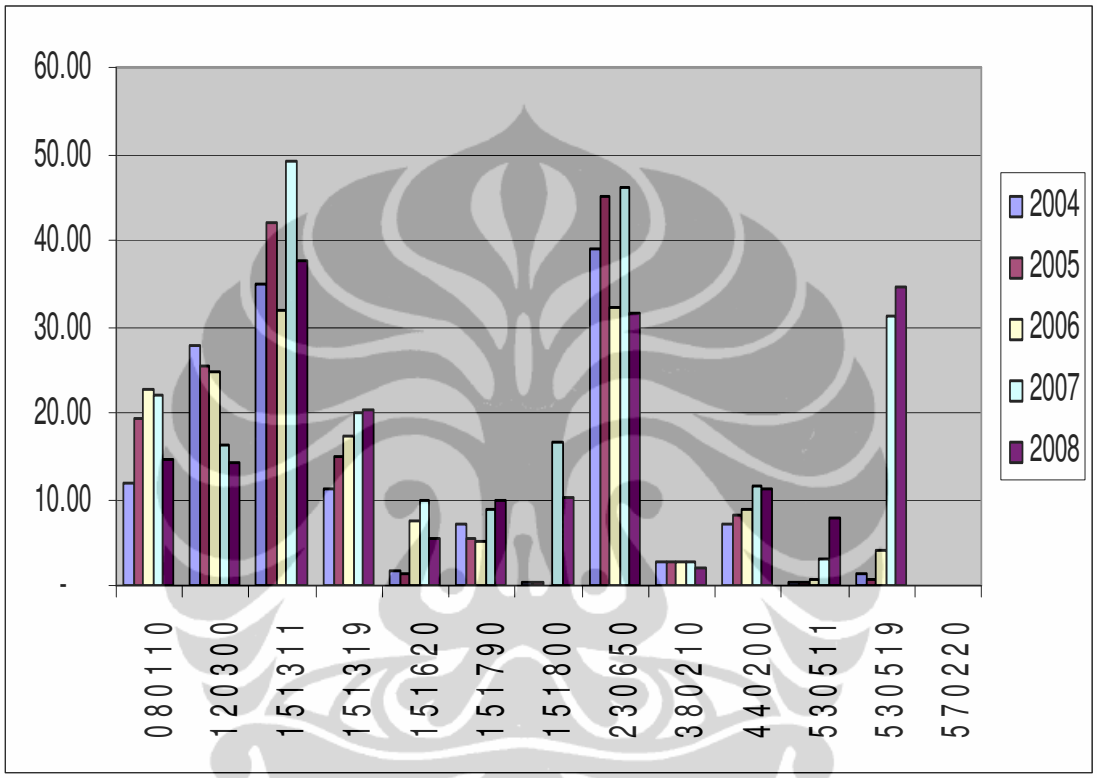
Table 5.1 – RCA Index for Indonesia's Coconut in Specific and as a Whole

HS	2004	2005	2006	2007	2008	Average	Trend
080110	12.02	19.20	22.63	21.99	14.72	18.11	5.56
120300	27.70	25.51	24.88	16.11	14.34	21.71	*(16.28)*
151311	35.03	42.17	32.01	49.03	37.67	39.18	3.00
151319	11.18	14.96	17.36	20.16	20.23	16.78	16.00
151620	1.72	1.38	7.61	9.77	5.30	5.15	52.37
151790	7.20	5.44	5.16	8.81	9.98	7.32	12.00
151800	**0.17**	**0.32**	**0.09**	16.76	10.12	5.49	234.43
230650	38.99	45.16	32.37	46.10	31.43	38.81	*(4.02)*
380210	2.77	2.87	2.57	2.60	2.00	2.56	*(7.19)*
440200	7.18	8.25	8.67	11.45	11.29	9.37	13.12
530511	**0.31**	**0.17**	**0.72**	3.21	7.70	2.42	153.98
530519	1.25	**0.62**	3.93	31.14	34.72	14.33	187.61
570220	**0.08**	**0.09**	**0.05**	**0.06**	**0.08**	**0.07**	*(3.44)*
As a whole	7.67	9.17	9.19	14.50	11.29	10.36	13.11

Notes:
The numbers presented in bold is showing that Indonesia's products has comparative disadvantage because its RCA index is less than one.
The numbers presented in italics is showing that Indonesia's product has declining trend in its comparative level.
Source: WITS, processed

However, if we see in more detail, among twelve HS that Indonesia has comparative advantage, in three of them Indonesia is not constantly has RCA index more than one during the periods of 2004 – 2008. They are HS 151800 (Vegetable Fats and Oils: Processed), HS 530511 (Coconut or Coir Fibre: Raw), and HS 530519 (Coconut or Coir Fibre: Processed). The HS 530519 (Coconut or Coir Fibre: Processed) is actually can be consider has RCA index more than one, but in 2004 Indonesia has loss its comparative advantage. While, in HS 151800 (Vegetable Fats and Oils: Processed) and

HS 530511 (Coconut or Coir Fibre: Raw), Indonesia is showing an increasing trends in the last two years, which is indicating a good sign in its exports. The trend in RCA index of coconut's products from Indonesia is illustrated in figure 5.2 below.



Source: WITS, Processed.

Figure 5.2 – Trend in RCA Index of Indonesia's Coconut in HS Codes

Based on RCA index trend, during period of 2004 – 2008, Indonesia has nine products that have increasing trend, they are HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), HS 440200 (Wood Charcoal), HS 530511 (Coconut or Coir Fibre: Raw), and HS 530519 (Coconut or Coir Fibre: Processed). In the other side, Indonesia has four products that have decreasing trend; they are HS 120300 (Copra), HS 230650 (Coconut or

Copra Oil-Cake and Residues), HS 380210 (Activated Carbon), and HS 570220 (Floor Coverings of Coconut Fibre or Coir). The best trend is from HS 151800 (Vegetable Fats and Oils: Processed), while the worst trend is from HS 120300 (Copra).

In the world market, Indonesia has to face many challenges that come from many competitors, to maintain its market share proportion. Each country, especially that exports coconuts compete against each other to get a larger market share available for their domestic's products. In world trade of coconuts, Indonesia has different ranks as a coconut's products exporter, details will be further explained.

5.1.1 Indonesia's Competitors on HS 080110 (Coconuts, Fresh or Dried)

In Annex 6, it is shown that in HS 080110 the biggest exporter in the world is dominated by the Philippines with 41.67% market share in 2008. The Philippines trade value in this product is steadily shows an upward trend and significant increase happens in 2008. In second place is Indonesia with 15.42% market share in 2008. Indonesia is also shows an upward trend in its trade value, but the difference in market share with the third position are not too wide. In third place is Srilanka with 13.33% market share in 2008. In fourth place is Singapore with 5.49% market share in 2008. In fifth place is the Netherlands with 5.07% market share in 2008.

In HS 080110, Indonesia has tough competitor which is the Philippines. The world market in this product is dominated by them. While in second position, Indonesia should also aware with Srilanka that sit on the third position, because their market share is relatively small in difference from Indonesia.

5.1.2 Indonesia's Competitors on HS 120300 (Copra)

In Annex 7, it is shown that during period of 2004 – 2008, the biggest exporter in HS 120300 is Vietnam, however, its trade value in 2008 is not available. But in 2007 their market share reaches 69.07%. In second place is Indonesia. In third place is Srilanka. In fourth place is

India. In fifth place is Belgium. This ranking is based on their total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 120300 is Srilanka with 39.99% market share. In second place is India with 30.36% market share. In third place is Indonesia with 15.02% market share. In fourth place is Egypt, Arab Rep. with 7.72% market share. In fifth place is Malaysia with 2.82% market share. In 2008, Indonesia has tough competition from Srilanka and India, especially from India in which their trade value increasing significantly from its trade value in 2004.

5.1.3 Indonesia's Competitors on HS 151311 (Coconut or Copra Oil: Crude)

In Annex 8, it is shown that in HS 151311 the biggest exporter in the world in 2008 is dominated by the Philippines with 46.40% market share. The Philippines trade value in this product is showing an upward trend. In second place is Indonesia, with 39.45% market share. Indonesia is also showing an upward trend in its trade value. In third place is the Netherlands with 6.67% market share. In fourth place is Malaysia with 3.52% market share. In fifth place is Mozambique with 0.35% market share.

In HS 151311, Indonesia and the Philippines are dominating the world market of this product, but still the Philippines are the biggest exporter and the toughest competitor for Indonesia. While the next competitor such as the Netherlands, Malaysia and Mozambique is still left behind from Indonesia.

5.1.4 Indonesia's Competitors on HS 151319 (Coconut or Copra Oil: Refined)

In Annex 9, it is shown that during period of 2004 – 2008, the biggest exporter in HS 151319 is the Philippines. In second place is the Netherlands. In third place is Indonesia. In fourth place is Malaysia. In fifth place is Germany. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 151319 is still the Philippines with 38.96% market share. In second place is Indonesia with 21.19% market share. In third place is the Netherlands with 18.09% market share. In fourth place is Malaysia with 12.78% market share. In fifth place is Germany with 2.28% market share.

In this product, the biggest competition comes from the Philippines who have the largest market share in the world. In addition, Indonesia has to anticipate the potential competitor such as the Netherlands and Malaysia. Their markets share is trying to catch up with Indonesia, especially the Netherlands.

5.1.5 Indonesia's Competitors on HS 151620 (Vegetables Fats and Oils)

In Annex 10, it is shown that during period of 2004 – 2008, the biggest exporter in HS 151620 is Malaysia. In second place is Germany. In third place is the Netherlands. In fourth place is Indonesia. In fifth place is European Union. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 151620 is dominated by Malaysia with 34.90% market share. In second place is Belgium with 8.46% market share. In third place is Germany with 8.27% market share. In fourth place is the Netherlands with 7.97% market share. In fifth place is Indonesia with 5.55% market share.

In this product, Indonesia is a middle player in the business with only 5.55% market share. This product is dominated by Malaysia. Interesting fact that Belgium who sit on second place in 2008 is showing a significant increase in their export, further more it exceeding Germany and the Netherlands in 2008 who also have better position compare to Indonesia.

5.1.6 Indonesia's Competitors on HS 151790 (Edible Preparations of Fats and Oils)

In Annex 11, it is shown that during period of 2004 – 2008, the biggest exporter in HS 151790 is Malaysia. In second place is Belgium. In third place is European Union. In fourth place is Indonesia. In fifth

place is the Netherlands. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 151790 is Malaysia with 16.03% market share. In second place is Belgium with 10.54% market share. In third place is Indonesia with 10.45% market share. In fourth place is European Union with 8.92% market share. In fifth place is the Netherlands with 6.36% market share.

In this product, Malaysia is still the biggest competitor for Indonesia, followed next with Belgium. In HS 151790, Malaysia and Belgium should be aware for Indonesia in the future. Indonesia is a potential competitor; in 2008 Indonesia is already exceeding the European Union in market share.

5.1.7 Indonesia's Competitors on HS 151800 (Vegetable Fats and Oils: Processed)

In Annex 12, it is shown that during period of 2004 – 2008, the biggest exporter in HS 151800 is the Netherlands. In second place is the United States. In third place is Argentina. In fourth place is Germany. In fifth place is Indonesia. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 151790 is the Netherlands with 15.17% market share. In second place is the United States with 12.33% market share. In third place is Argentina with 10.88% market share. In fourth place is Indonesia with 10.60% market share. In fifth place is Germany with 7.47% market share.

In this product, the Netherlands is still the biggest competitor for Indonesia, followed next with the United States and Argentina. In HS 151800, the Netherlands, the United States and Argentina should be aware for Indonesia in the future. Indonesia is a potential competitor; in 2008 Indonesia is already exceeding Germany in market share.

5.1.8 Indonesia's Competitors on HS 230650 (Coconut or Copra Oil-Cake and Residues)

In Annex 13, it is shown that during period of 2004 – 2008, the biggest exporter in HS 230650 is the Philippines. In second place is Indonesia. In third place is the Netherlands. In fourth place is Srilanka. In fifth place is Thailand. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 230650 is the Philippines with 55.75% market share. In second place is Indonesia with 32.92% market share. In third place is Srilanka with 4.98% market share. In fourth place is the Netherlands with 2.11% market share. In fifth place is Thailand with 1.57% market share.

In HS 230650, Indonesia and the Philippines are dominating the world market of this product, but still the Philippines are the biggest exporter and the toughest competitor for Indonesia. While the next competitor such as Srilanka, the Netherlands, and Thailand is still left behind from Indonesia.

5.1.9 Indonesia's Competitors on HS 380210 (Activated Carbon)

In Annex 14, it is shown that during period of 2004 – 2008, the biggest exporter in HS 380210 is China. In second place is the United States. In third place is the European Union. In fourth place is the Netherlands. In fifth place is Japan. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 380210 is China with 22.16% market share. In second place is the European Union with 11.57% market share. In third place is the United States with 10.91% market share. In fourth place is the Netherlands with 10.15% market share. In fifth place is Japan with 5.03% market share.

In HS 380210, Indonesia has 2.10% market share in 2008. In this high value added products, unfortunately, the domination fall into the hand of highly developed industrialized countries such as China, the United States, the European Union, the Netherlands and Japan.

5.1.10 Indonesia's Competitors on HS 440200 (Wood Charcoal)

In Annex 15, it is shown that during period of 2004 – 2008, the biggest exporter in HS 440200 is Indonesia. In second place is Poland. In third place is Argentina. In fourth place is Belgium. In fifth place is China. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 440200 is Indonesia with 11.83% market share. In second place is Poland with 10.09% market share. In third place is Argentina with 9.74% market share. In fourth place is Paraguay with 8.65% market share. In fifth place is Belgium with 7.66% market share.

In HS 440200, Indonesia is the biggest exporter in the world; however, its next competitor which is Poland is already close enough to overcome Indonesia's position in the world market. It is also followed by Argentina and Belgium. Indonesia should be aware of these potential competitors.

5.1.11 Indonesia's Competitors on HS 530511 (Coconut or Coir Fibre: Raw)

In Annex 16, it is shown that during period of 2004 – 2008, the biggest exporter in HS 530511 is Srilanka. In second place is Vietnam. In third place is India. In fourth place is the Philippines. In fifth place is Thailand. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 530511 is India with 66.28% market share. In second place is the Philippines with 14.50% market share. In third place is Mozambique with 10.69% market share. In fourth place is Indonesia with 8.07% market share. In fifth place is Malaysia with 0.42% market share.

In HS 530511, it seems that trade value of this products significantly decreasing in 2008. It is happens probably because this products is no longer attractive enough to be traded, due to its low value added.

5.1.12 Indonesia's Competitors on HS 530519 (Coconut or Coir Fibre: Processed)

In Annex 17, it is shown that during period of 2004 – 2008, the biggest exporter in HS 530511 is Srilanka. In second place is Thailand. In third place is India. In fourth place is the Philippines. In fifth place is Indonesia. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 530511 is India with 42.95% market share. In second place is Indonesia with 36.36% market share. In third place is the Philippines with 15.38% market share. In fourth place is Malaysia with 4.66% market share.

In HS 530511, Indonesia and India are dominating the world market of this product, but still India is the biggest exporter and the toughest competitor for Indonesia. While the next competitor such as the Philippines, and Malaysia is still left behind from Indonesia.

5.1.13 Indonesia's Competitor on HS 570220 (Floor Coverings of Coconut Fibre or Coir)

In Annex 18, it is shown that during period of 2004 – 2008, the biggest exporter in HS 570220 is India. In second place is the Netherlands. In third place is Srilanka. In fourth place is Germany. In fifth place is the European Union. This ranking is based on total trade value during 2004 up to 2008.

Based on its trade value in 2008, the biggest exporter in HS 570220 is India with 74.10% market share. In second place is the Netherlands with 5.69% market share. In third place is Germany with 3.63% market share. In fourth place is Srilanka with 3.37% market share. In fifth place is Thailand with 2.65% market share. In this product, India is dominating the world market.

To summarize, by using RCA method to analyze Indonesia's export competitiveness in coconuts the result shows that in coconut as whole, Indonesia has comparative advantage during period of 2004 – 2008. While in more specific product, from thirteen coconuts's products being exported,

twelve products indicating that Indonesia has comparative advantage and one products indicating that Indonesia has comparative disadvantage. The products that indicate Indonesia has comparative advantage are HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 380210 (Activated Carbon), HS 440200 (Wood Charcoal), HS 530511 (Coconut or Coir Fibre: Raw), and HS 530511 (Coconut or Coir Fibre: Processed). While the product that indicates Indonesia has comparative disadvantage is HS 570220 (Floor Coverings of Coconut Fibre or Coir). In addition during period of 2004 – 2008, based on data of world's coconut exporter provided from WITS database, Indonesia includes in top five exporter for ten products. However, on HS 380210 (Activated Carbon), HS 530511 (Coconut or Coir Fibre: Raw), and HS 570220 (Floor Coverings of Coconut Fibre or Coir) Indonesia is not included in its top five exporters.

5.2 Result and Analysis of Constant Market Share Analysis (CMSA)

The Constant Market Share Analysis (CMSA) is a competitiveness analytical tools that commonly being used to measure export's performance of commodity i to country j especially in related to its market share changes (relative to certain standards).

In this research, the CMSA method is used to analyze the competitiveness level of Indonesia's coconuts export on its top three biggest main importers markets, based on their trading value in 2008, as it is shown in table 5.2. This table is listing the top three countries in each HS of coconut, with its share proportion. There are sixteenth countries listed in the table, they are the U.S., the Netherlands, Germany, the Philippines, China, Korea, Rep., Srilanka, Papua New Guinea, Solomon Islands, Pakistan, Malaysia, India, Vietnam, Japan, Argentina, and Paraguay. However, due to data unavailability, Paraguay can not be analyzed using this CMSA method.

Table 5.2 – Indonesia's Main Importers on Coconut in 2008

HS	First Place		Second Place		Third Place	
	Countries	Share	Countries	Share	Countries	Share
080110	Philippines	20.86	USA	6.77	Srilanka	6.43
120300	Papua N.G.	24.55	Solomon Islands	14.78	Pakistan	11.87
151311	Philippines	34.20	Netherlands	21.23	USA	10.13
151319	Philippines	19.51	USA	18.12	Malaysia	12.22
151620	Netherlands	11.34	Germany	9.07	China	7.92
151790	Netherlands	6.90	USA	6.56	Germany	6.11
151800	USA	20.43	Netherlands	16.74	Germany	8.96
230650	Korea, Rep.	48.48	Vietnam	14.79	Philippines	9.16
380210	China	15.47	USA	13.29	Japan	7.93
440200	Argentina	7.08	Germany	6.21	Paraguay	5.86
530511	Netherlands	16.79	China	14.35	Korea, Rep.	11.73
530519	China	44.95	Korea, Rep.	20.67	Srilanka	8.93
570220	India	34.96	USA	17.54	Germany	6.41

Source: WITS, Processed

The CMSA method prepares a set of statistic indicator to analyze the availability of one country's export contribution to all import market in certain of period. There are four parameters in CMSA method; they are (1) standard growth, (2) commodity composition, (3) market distribution and (4) competitiveness.

First, standard growth, it indicates the general standard of export growth of all countries in the world market, or the world to the world export. The growth reflects the export performance of world export between countries. This standard growth then can be compared to Indonesia's export growth. If the standard growth of export is lower than Indonesia's export growth, it means that the export performance of Indonesia is better than the average other countries in the world.

Second, commodity composition, it indicates the level of fitnesses of Indonesia's products on its destination countries market. This indicator can be positive or even negative. If the value is positive, it indicates that composition of Indonesia's products met with the customer demands and market requirements. In the other side, if the value is negative, it indicates that composition of Indonesia's products did not meet the customer

demands and market requirements in its destination market. The weaknesses on commodity composition also indicate the weaknesses of Indonesian market's intelligence, so the supply and demand of product in world market is not properly observed (Hadi, 2004:55).

Third, market distribution, it indicates whether the destination countries is a potential market for Indonesia's product or is it otherwise. This indicator can be positive or even negative. If the value is positive, it indicates that the destination market is a potential market for Indonesia's product. In the other side, if the value is negative, it indicates that in that country's market the demand for the Indonesia's products is decreasing.

Fourth, competitiveness, it indicates the level of Indonesia's products competitiveness compares to its competitors. This indicator can be positive or even negative. If the value is positive, it indicates that Indonesia's products have high level of competitiveness compare to its competitors in its destination market. In the other side, if the value is negative, it indicates that Indonesia's products have weak level of competitiveness compare to its competitors in its destination market.

In 2004 – 2008, Indonesia's export growth was higher than standard growth, so it indicates that export performance of Indonesia was better than the world (see Annex 17). Therefore, it is important to know the component that influences the increasing export's growth.

5.2.1 Analysis of Indonesia's Coconuts Export in the US Market

On period of 2004-2008, as it is shown in Annex 18, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), and HS 380210 (Activated Carbon). It indicates that in the US market, this product already met with the consumer demands and market requirements. While, on HS 230650 (Coconut or Copra Oil-Cake and Residues) and HS 440200 (Wood Charcoal), which has negative value, still not yet matches with the consumer demands and market requirements in the US market.

In market distribution effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 151790 (Edible Preparations of Fats and Oils), and HS 151800 (Vegetable Fats and Oils: Processed). It indicates that in this product the US market is a potential market. While, on HS 151311 (Coconut or Copra Oil: Crude), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal) and HS 380210 (Activated Carbon), which has negative value, are not entering a potential market in the US or their demands in the US market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151800 (Vegetable Fats and Oils: Processed), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 380210 (Activated Carbon) and HS 440200 (Wood Charcoal). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in the US market. While, on HS 151790 (Edible Preparations of Fats and Oils), Indonesia still has low competitiveness in the US market.

5.2.2 Analysis of Indonesia's Coconuts Export in the Netherlands Market

On period of 2004-2008, as it is shown in Annex 19, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151620 (Vegetables Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), and HS 380210 (Activated Carbon). It indicates that in the Netherlands market, this product already met with the consumer demands and market requirements. While, on HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal) and HS 570220 (Floor Coverings of Coconut Fibre or Coir), which has negative value, still not yet matches with the consumer demands and market requirements in the Netherlands market.

In market distribution effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), and HS 380210 (Activated Carbon).

It indicates that in this product the Netherlands market is a potential market. While, on HS 151311 (Coconut or Copra Oil: Crude), HS 151620 (Vegetables Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal) and HS 570220 (Floor Coverings of Coconut Fibre or Coir), which has negative value, are not entering a potential market in the Netherlands or their demands in the Netherlands market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151800 (Vegetable Fats and Oils: Processed), and HS 440200 (Wood Charcoal). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in the Netherlands market. While, on HS 151620 (Vegetables Fats and Oils), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal), and HS 570220 (Floor Coverings of Coconut Fibre or Coir) Indonesia still has low competitiveness in the Netherlands market.

5.2.3 Analysis of Indonesia's Coconuts Export in Germany Market

On period of 2004-2008, as it is shown in Annex 20, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed) and HS 380210 (Activated Carbon). It indicates that in Germany market, this product already met with the consumer demands and market requirements. While, on HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal) and HS 530519 (Coconut or Coir Fibre: Processed), which has negative value, still not yet matches with the consumer demands and market requirements in Germany market.

In market distribution effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil:

Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils) and HS 151790 (Edible Preparations of Fats and Oils). It indicates that in this products Germany market is a potential market. While, on HS 151800 (Vegetable Fats And Oils: Processed), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 530519 (Coconut or Coir Fibre: Processed), HS 440200 (Wood Charcoal) and HS 380210 (Activated Carbon), which has negative value, are not entering a potential market in Germany or their demands in Germany market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151790 (Edible Preparations of Fats and Oils), HS 380210 (Activated Carbon), and HS 440200 (Wood Charcoal). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in Germany market. While, on HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), HS 230650 (Coconut or Copra Oil-Cake and Residues) and HS 530519 (Coconut or Coir Fibre: Processed) Indonesia still has low competitiveness in Germany market.

5.2.4 Analysis of Indonesia's Coconuts Export in the Philippines Market

On period of 2004-2008, as it is shown in Annex 21, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), and HS 380210 (Activated Carbon). It indicates that in the Philippines market, this product already met with the consumer demands and market requirements. While, on HS 120300 (Copra), and HS 440200 (Wood Charcoal), which has negative value, still not yet matches with the consumer demands and market requirements in the Philippines market.

In market distribution effect, Indonesia has positive value on HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils) and HS 380210 (Activated Carbon). It indicates that in this

product the Philippines market is a potential market. While, on HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), and HS 440200 (Wood Charcoal), which has negative value, are not entering a potential market in the Philippines or their demands in the Philippines market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in the Philippines market. While, on HS 120300 (Copra), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 380210 (Activated Carbon) and HS 440200 (Wood Charcoal) Indonesia still has low competitiveness in the Philippines market.

5.2.5 Analysis of Indonesia's Coconuts Export in China Market

On period of 2004-2008, as it is shown in Annex 22, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils) and HS 380210 (Activated Carbon). It indicates that in China market, this product already met with the consumer demands and market requirements. While, on HS 230650 (Coconut Or Copra Oil-Cake And Residues), HS 440200 (Wood Charcoal), HS 530511 (Coconut Or Coir Fibre: Raw), HS 530519 (Coconut Or Coir Fibre: Processed) and HS 570220 (Floor Coverings Of Coconut Fibre Or Coir), which has negative value, still not yet matches with the consumer demands and market requirements in China market.

In market distribution effect, Indonesia has positive value on HS 151311 (Coconut or Copra Oil: Crude), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 530519 (Coconut or Coir Fibre: Processed) and HS 570220 (Floor Coverings of Coconut Fibre or Coir). It indicates that in this products China market is a potential market. While, on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil:

Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 380210 (Activated Carbon), HS 440200 (Wood Charcoal), and HS 530511 (Coconut or Coir Fibre: Raw), which has negative value, are not entering a potential market in China or their demands in China market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 380210 (Activated Carbon), HS 440200 (Wood Charcoal), HS 530511 (Coconut or Coir Fibre: Raw), HS 530519 (Coconut or Coir Fibre: Processed), and HS 570220 (Floor Coverings of Coconut Fibre or Coir). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in China market. While, on HS 151311 (Coconut or Copra Oil: Crude) Indonesia still has low competitiveness in China market.

5.2.6 Analysis of Indonesia's Coconuts Export in Korea, Rep. Market

On period of 2004-2008, as it is shown in Annex 23, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), and HS 380210 (Activated Carbon). It indicates that in Korea, Rep. Market, this product already met with the consumer demands and market requirements. While, on HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal), HS 530511 (Coconut or Coir Fibre: Raw), and HS 530519 (Coconut or Coir Fibre: Processed), which has negative value, still not yet matches with the consumer demands and market requirements in Korea, Rep. Market.

In market distribution effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal), HS

530511 (Coconut or Coir Fibre: Raw), and HS 530519 (Coconut or Coir Fibre: Processed). It indicates that in this products Korea, Rep. Market is a potential market. While, on HS 380210 (Activated Carbon), which has negative value, is not, entering a potential market in Korea, Rep. or their demands in Korea, Rep. Market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 440200 (Wood Charcoal), and HS 530511 (Coconut or Coir Fibre: Raw). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in Korea, Rep. Market. While, on HS 080110 (Coconuts, Fresh or Dried), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 380210 (Activated Carbon), and HS 530519 (Coconut or Coir Fibre: Processed) Indonesia still has low competitiveness in Korea, Rep. Market.

5.2.7 Analysis of Indonesia's Coconuts Export in Srilanka Market

On period of 2004-2008, as it is shown in Annex 24, commodity composition effect has positive value on HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), and HS 151790 (Edible Preparations of Fats and Oils). It indicates that in Srilanka market, this product already met with the consumer demands and market requirements. While, on HS 440200 (Wood Charcoal), which has negative value, still not yet matches with the consumer demands and market requirements in Srilanka market.

In market distribution effect, Indonesia has positive value on HS 440200 (Wood Charcoal). It indicates that in this product Srilanka market is a potential market. While, on HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), and HS 151790 (Edible Preparations of Fats and Oils), which has negative value, are not entering a potential market in Srilanka or their demands in Srilanka market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 151319 (Coconut or Copra Oil: Refined). It indicates that in this product,

Indonesia has high competitiveness compare to its competitor in Srilanka market. While, on HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), and HS 440200 (Wood Charcoal) Indonesia still has low competitiveness in Srilanka market.

5.2.8 Analysis of Indonesia's Coconuts Export in Papua New Guinea Market

On period of 2004-2008, as it is shown in Annex 25, commodity composition effect has positive value on HS 151319 (Coconut or Copra Oil: Refined), and HS 151790 (Edible Preparations of Fats and Oils). It indicates that in Papua New Guinea market, this product already met with the consumer demands and market requirements.

In market distribution effect, Indonesia has negative value on HS 151319 (Coconut or Copra Oil: Refined), and HS 151790 (Edible Preparations of Fats and Oils), this means that this products are not entering a potential market in Papua New Guinea or their demands in Papua New Guinea market is decreasing.

In competitiveness effect, Indonesia has negative value on HS 151319 (Coconut or Copra Oil: Refined), and HS 151790 (Edible Preparations of Fats and Oils), this means that Indonesia still has low competitiveness in Papua New Guinea market.

5.2.9 Analysis of Indonesia's Coconuts Export in Solomon Islands Market

On period of 2004-2008, as it is shown in Annex 26, commodity composition effect has positive value on HS 151620 (Vegetables Fats and Oils). It indicates that in Solomon Islands market, this product already met with the consumer demands and market requirements.

In market distribution effect, Indonesia has positive value on HS 151620 (Vegetables Fats and Oils). It indicates that in this product Solomon Islands market is a potential market.

In competitiveness effect, Indonesia has negative value on HS 151620 (Vegetables Fats and Oils); this means that in this product, Indonesia has low competitiveness in Solomon Islands market.

5.2.10 Analysis of Indonesia's Coconuts Export in Pakistan Market

On period of 2004-2008, as it is shown in Annex 27, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), and HS 151311 (Coconut or Copra Oil: Crude). It indicates that in Pakistan market, this product already met with the consumer demands and market requirements. While, on HS 120300 (Copra), HS 230650 (Coconut or Copra Oil-Cake and Residues), and HS 440200 (Wood Charcoal), which has negative value, still not yet matches with the consumer demands and market requirements in Pakistan market.

In market distribution effect, Indonesia has positive value on HS 120300 (Copra), HS 230650 (Coconut or Copra Oil-Cake and Residues), and HS 440200 (Wood Charcoal). It indicates that in this products Pakistan market is a potential market. While, on HS 080110 (Coconuts, Fresh or Dried), and HS 151311 (Coconut or Copra Oil: Crude), which has negative value, are not entering a potential market in Pakistan or their demands in Pakistan market is decreasing.

In competitiveness effect, Indonesia has negative value on HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), HS 151311 (Coconut or Copra Oil: Crude), HS 230650 (Coconut or Copra Oil-Cake and Residues), and HS 440200 (Wood Charcoal), this means that in this products Indonesia has low competitiveness in Pakistan market.

5.2.11 Analysis of Indonesia's Coconuts Export in Malaysia Market

On period of 2004-2008, as it is shown in Annex 28, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), and HS 380210 (Activated Carbon). It indicates that in Malaysia market, this product already met with the consumer demands and market requirements. While, on HS 120300 (Copra), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal) and HS 530519 (Coconut or Coir Fibre: Processed), which has negative value,

still not yet matches with the consumer demands and market requirements in Malaysia market.

In market distribution effect, Indonesia has positive value on HS 151311 (Coconut or Copra Oil: Crude). It indicates that in this product Malaysia market is a potential market. While, on HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), HS 151319 (Coconut or Copra Oil: Refined), HS 151790 (Edible Preparations of Fats and Oils), HS 151620 (Vegetables Fats and Oils), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 380210 (Activated Carbon), HS 440200 (Wood Charcoal), and HS 530519 (Coconut or Coir Fibre: Processed), which has negative value, are not entering a potential market in Malaysia or their demands in Malaysia market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), and HS 151790 (Edible Preparations of Fats and Oils). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in Malaysia market. While, on HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 380210 (Activated Carbon), HS 440200 (Wood Charcoal) and HS 530519 (Coconut or Coir Fibre: Processed) Indonesia still has low competitiveness in Malaysia market.

5.2.12 Analysis of Indonesia's Coconuts Export in India Market

On period of 2004-2008, as it is shown in Annex 29, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed) and HS 380210 (Activated Carbon). It indicates that in India market, this product already met with the consumer demands and market requirements. While, on HS 120300 (Copra), and HS 230650 (Coconut or Copra Oil-Cake and Residues), which has

negative value, still not yet matches with the consumer demands and market requirements in India market.

In market distribution effect, Indonesia has positive value on HS 151311 (Coconut or Copra Oil: Crude), HS 151620 (Vegetables Fats and Oils), and HS 380210 (Activated Carbon). It indicates that in this product India market is a potential market. While, on HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), HS 151319 (Coconut or Copra Oil: Refined), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), and HS 230650 (Coconut or Copra Oil-Cake and Residues), which has negative value, are not entering a potential market in India or their demands in India market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), and HS 230650 (Coconut or Copra Oil-Cake and Residues). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in India market. While, on HS 120300 (Copra), HS 151311 (Coconut or Copra Oil: Crude), and HS 380210 (Activated Carbon) Indonesia still has low competitiveness in India market.

5.2.13 Analysis of Indonesia's Coconuts Export in Vietnam Market

On period of 2004-2008, as it is shown in Annex 30, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), and HS 380210 (Activated Carbon). It indicates that in Vietnam market, this product already met with the consumer demands and market requirements. While, on HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 440200 (Wood Charcoal), and HS 570220 (Floor Coverings of Coconut Fibre or Coir), which has negative value, still not yet matches with the consumer demands and market requirements in Vietnam market.

In market distribution effect, Indonesia has positive value on HS 151311 (Coconut or Copra Oil: Crude), HS 151620 (Vegetables Fats and Oils), HS 230650 (Coconut or Copra Oil-Cake and Residues) and HS 570220 (Floor Coverings of Coconut Fibre or Coir). It indicates that in this product Vietnam market is a potential market. While, on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 151790 (Edible Preparations of Fats and Oils), HS 380210 (Activated Carbon), and HS 440200 (Wood Charcoal), which has negative value, are not entering a potential market in Vietnam or their demands in Vietnam market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 151790 (Edible Preparations of Fats and Oils), HS 230650 (Coconut or Copra Oil-Cake and Residues), and HS 380210 (Activated Carbon). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in Vietnam market. While, on HS 080110 (Coconuts, Fresh or Dried), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 440200 (Wood Charcoal), and HS 570220 (Floor Coverings of Coconut Fibre or Coir) Indonesia still has low competitiveness in Vietnam market.

5.2.14 Analysis of Indonesia's Coconuts Export in Japan Market

On period of 2004-2008, as it is shown in Annex 31, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), and HS 380210 (Activated Carbon). It indicates that in Japan market, this product already met with the consumer demands and market requirements. While, on HS 120300 (Copra), HS 440200 (Wood Charcoal), HS 530511 (Coconut or Coir Fibre: Raw) and HS 530519 (Coconut or Coir Fibre: Processed), which has negative value, still not yet matches with the consumer demands and market requirements in Japan market.

In market distribution effect, Indonesia has negative value on HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 380210 (Activated Carbon), HS 440200 (Wood Charcoal), HS 530511 (Coconut or Coir Fibre: Raw) and HS 530519 (Coconut or Coir Fibre: Processed); this means that this product are not entering a potential market in Japan or their demands in Japan market is decreasing.

In competitiveness effect, Indonesia has positive value on HS 120300 (Copra), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 380210 (Activated Carbon) and HS 530511 (Coconut or Coir Fibre: Raw). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in Japan market. While, on HS 080110 (Coconuts, Fresh or Dried), HS 151319 (Coconut or Copra Oil: Refined), HS 440200 (Wood Charcoal), and HS 530519 (Coconut or Coir Fibre: Processed) Indonesia still has low competitiveness in Japan market.

5.2.15 Analysis of Indonesia's Coconuts Export in Argentina Market

On period of 2004-2008, as it is shown in Annex 32, commodity composition effect has positive value on HS 080110 (Coconuts, Fresh or Dried). It indicates that in Argentina market, this product already met with the consumer demands and market requirements.

In market distribution effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried). It indicates that in this product Argentina market is a potential market.

In competitiveness effect, Indonesia has positive value on HS 080110 (Coconuts, Fresh or Dried). It indicates that in this product, Indonesia has high competitiveness compare to its competitor in Argentina market.

Using CMSA method to analyze Indonesia's export competitiveness in coconuts, the result of competitiveness effect on its certain markets can be summarized as shown in table 5.3.

Table 5.3 – Indonesia's Competitiveness Effect Based on CMSA Calculation

No.	Countries	080110	120300	151311	151319	151620	151790	151800	230650	380210	440200	530511	530519	570220
1	United States	0.000000830	-	0.000749918	0.000167905	-	(0.000001165)	0.001802338	0.000000343	0.000036746	0.000000251	-	-	-
2	Netherlands	0.000006687	-	0.001112514	-	(0.000078565)	-	0.000131031	(0.000001474)	(0.000032328)	0.000001166	-	-	(0.000000003)
3	Germany	0.000034935	-	(0.000114070)	(0.000129591)	(0.000010687)	0.000002854	(0.000000004)	(0.000000433)	0.000004854	0.000005799	-	(0.000000002)	-
4	Philippines	0.000000327	(0.000012811)	-	-	(0.000003676)	(0.000034615)	-	-	(0.000000330)	(0.000000256)	-	-	-
5	China	0.000030517	-	(0.000030916)	0.000162045	0.002196698	0.000171623	-	0.000000490	0.000009430	0.000035838	0.000007375	0.000025132	0.000000460
6	Korea, Rep.	(0.000000843)	-	-	0.000865259	0.000007242	-	-	(0.000007820)	(0.000010962)	0.000231907	0.000000499	(0.000000050)	-
7	Srilanka	-	-	-	0.000017420	(0.000006510)	(0.000010600)	-	-	-	(0.000030207)	-	-	-
8	Papua New Guinea	-	-	-	(0.000000272)	-	(0.000002823)	-	-	-	-	-	-	-
9	Solomon Islands	-	-	-	-	(0.000000191)	-	-	-	-	-	-	-	-
10	Pakistan	(0.000010226)	(0.000000271)	(0.000010881)	-	-	-	-	(0.000006404)	-	(0.000000412)	-	-	-
11	Malaysia	0.000000941	0.000005368	0.000533751	0.000346976	0.000003604	0.000052262	-	(0.000000046)	(0.000002941)	(0.000005359)	-	(0.000000005)	-
12	India	0.000001102	(0.000000013)	(0.000206205)	0.000004100	0.000083362	0.000016506	0.000001210	0.000004911	(0.000004174)	-	-	-	-
13	Vietnam	(0.000003781)	-	(0.000001662)	(0.000001473)	(0.000003424)	0.000018489	-	0.000079557	0.000003998	(0.000000749)	-	-	(0.000000910)
14	Japan	(0.000001288)	0.000000387	-	(0.000005494)	-	0.000001393	0.000001355	0.000051251	0.000030917	(0.000060434)	0.000000084	(0.000000004)	-
15	Argentina	0.000011008	-	-	-	-	-	-	-	-	-	-	-	-

Source: WITS, processed.

Notes :
Number in dark background is where Indonesia has positive value in its competitiveness effect. In CMSA method, the positive value in competitiveness effect means that the products has strong competitiveness in related market, while, the negative value means that the products has weak competitiveness in related market.

From the table 5.3, China is in the first place as the most prospective destination market for Indonesia's coconut products, in China Indonesia has ten products that have positive value on its competitiveness index. Positive value in competitiveness index means that Indonesia has strong competitiveness compare to its competitors in its destination market. In second place is the United States, which has seven products that have positive value on its competitiveness index. In third place are Malaysia, India and Japan, which have six products that have positive value on its competitiveness index. In fourth place are the Netherlands, Germany, and Korea, Rep. which have four products that have positive value on its competitiveness index. In fifth place is Vietnam which has three products that have positive value on its competitiveness index. In sixth place are the Philippines, Srilanka, and Argentina which have one product that have positive value on its competitiveness index. Unfortunately, in Papua New Guinea, Solomon Islands, and Pakistan's market Indonesia is not has any products that have positive value on its competitiveness index.

5.3 Comparative Advantage and Competitiveness Effect

The relationship between comparative advantage and competitiveness effect can be seen on each HS of coconut's product as it is further explained. In HS 080110 (Coconuts, Fresh or Dried), during period of 2004 – 2008, the average RCA index is 18.11 (as it is shown in Table 5.1) that means that Indonesia has comparative advantage in the world for this product. However, the competitiveness effect of Indonesia's export in coconut on its main importers in 2008 only positive in the US, the Netherlands, Germany, the Philippines, China, Malaysia, India and Argentina, in those countries Indonesia's comparative advantage is supported with strong competitiveness in those markets. While competitiveness effect has negative value in Korea, Rep., Pakistan, Vietnam and Japan (as it is shown in Table 5.3) which means that Indonesia might have comparative advantage in these markets but it is not caused by strong competitiveness of Indonesia's exports in these markets.

In HS 120300 (Copra), during period of 2004 – 2008, the average RCA index is 21.71 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. But the competitiveness effect only positive in Malaysia and Japan. In the other side, competitiveness effect has negative value in the Philippines, Pakistan, and India (as it is shown in Table 5.3).

In HS 151311 (Coconut or Copra Oil: Crude), during period of 2004 – 2008, the average RCA index is 39.18 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. Unfortunately, the competitiveness effect only positive in the US, the Netherlands, and Malaysia. While it is negative in Germany, China, Pakistan, India and Vietnam (as it is shown in Table 5.3).

In HS 151319 (Coconut or Copra Oil: Refined), during period of 2004 – 2008, the average RCA index is 16.78 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. However, the competitiveness effect only positive in the US, China, Korea, Rep., Srilanka, Malaysia and India. In the other side, competitiveness effect is negative in Germany, Papua New Guinea, Vietnam and Japan (as it is shown in Table 5.3).

In HS 151620 (Vegetables Fats and Oils), during period of 2004 – 2008, the average RCA index is 5.15 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. But the competitiveness effect only positive in China, Korea, Rep., Malaysia, and India. While competitiveness effect is negative in the Netherlands, Germany, the Philippines, Srilanka, Solomon Islands, and Vietnam (as it is shown in Table 5.3).

In HS 151790 (Edible Preparations of Fats and Oils), during period of 2004 – 2008, the average RCA index is 7.32 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. Unfortunately, the competitiveness effect only positive in Germany, China, Malaysia, India and Vietnam. In the other side, competitiveness effect is negative in the US, the Philippines, Srilanka and Papua New Guinea (as it is shown in Table 5.3).

In HS 151800 (Vegetable Fats and Oils: Processed), during period of 2004 – 2008, the average RCA index is 5.49 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. However, the competitiveness effect only positive in the US, the Netherlands, India and Japan. While competitiveness effect is negative in Germany (as it is shown in table 5.3).

In HS 230650 (Coconut or Copra Oil-Cake and Residues), during period of 2004 – 2008, the average RCA index is 38.81 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. But the competitiveness effect only positive in the US, China, India, Vietnam and Japan. In the other side, competitiveness effect is negative in the Netherlands, Germany, Korea, Rep., Pakistan and Malaysia (as it is shown in Table 5.3).

In HS 380210 (Activated Carbon), during period of 2004 – 2008, the average RCA index is 2.56 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. Unfortunately, the competitiveness effect only positive in the US, Germany, China, India, Vietnam and Japan. While competitiveness effect is negative in the Netherlands, the Philippines, Malaysia and India (as it is shown in Table 5.3).

In HS 440200 (Wood Charcoal), during period of 2004 – 2008, the average RCA index is 9.37 (as it is shown in Table 5.1). Indonesia has comparative advantage in this product. However, the competitiveness effect only positive in the US, the Netherlands, Germany, China, and Korea, Rep. In the other side, competitiveness effect is negative in the Philippines, Srilanka, Pakistan, Malaysia, Vietnam and Japan, (as it is shown in Table 5.3).

In HS 530511 (Coconut or Coir Fibre: Raw), during period of 2004 – 2008, the average RCA index is 2.42 (as it is shown in Table 5.1). Indonesia has comparative advantage in this products. Fortunately, the competitiveness effect is all positive in China, Korea, Rep., and Japan.

In HS 530519 (Coconut or Coir Fibre: Processed), during period of 2004 – 2008, the average RCA index is 14.33 (as it is shown in Table 5.1).

Indonesia has comparative advantage in this product. But the competitiveness effect only positive in China. While competitiveness effect is negative in Germany, Korea, Rep., Malaysia, and Japan (as it is shown in Table 5.3).

In HS 570220 (Floor Coverings of Coconut Fibre or Coir), during period of 2004 – 2008, the average RCA index is 0.07 (as it is shown in Table 5.1). Indonesia has comparative disadvantage in this product which is the only product that Indonesia has one. Fortunately, the competitiveness effect is positive in China. While competitiveness effect is negative in the Netherlands and Vietnam (as it is shown in Table 5.3).

To summarize, the relationship between comparative advantage and competitiveness effect can be divided into four groups. First group, is where Indonesia has comparative advantage in related product and it is also has strong competitiveness in related market, such as HS 080110 in the US, the Netherlands, Germany, the Philippines, China, Malaysia, India, and Argentina's markets. Second group, is where Indonesia has comparative advantage in related product but it is has weak competitiveness on related market such as HS 080110 in Korea, Rep., Pakistan, Vietnam, and Japan's markets. Third group, is where Indonesia has comparative disadvantage in related product, however, it has strong competitiveness in related market such as HS 570220 in China's market. Finaly, is where Indonesia not only has comparative disadvantage in related product but also weak competitiveness in related market such as HS 570220 in the Netherlands, and Vietnam's market. The relationship of comparative advantage and competitiveness effect is summarized in table 5.4.

Table 5.4 – Summary of Comparative Advantage and Competitiveness Effect

		Competitiveness Effect	
		Strong	**Weak**
Comparative	**Advantage**	HS 080110 in the US, the Netherlands, Germany, the Philippines, China, Malaysia, India, and Argentina	HS 080110 in Korea, Rep., Pakistan, Vietnam, and Japan
		HS 120300 in Malaysia, and Japan	HS 120300 in the Philippines, Pakistan, and India
		HS 151311 in the US, the Netherlands, and Malaysia	HS 151311 in Germany, China, Pakistan, India, and Vietnam
		HS 151319 in the US, China, Korea, Rep., Srilanka, Malaysia, and India	HS 151319 in Germany, Papua New Guinea, Vietnam, and Japan
		HS 151620 in China, Korea, Rep., Malaysia, and India	HS 151620 in the Netherlands, Germany, the Philippines, Srilanka, Solomon Islands, and Vietnam
		HS 151790 in Germany, China, Malaysia, India, and Vietnam	HS 151790 in the US, the Philippines, Srilanka, and Papua New Guinea
		HS 151800 in the US, the Netherlands, India, and Japan	HS 151800 in Germany
		HS 230650 in the US, China, India, Vietnam, and Japan	HS 230650 in the Netherlands, Germany, Korea, Rep., Pakistan, and Malaysia
		HS 380210 in the US, Germany, China, India, Vietnam, and Japan	HS 380210 in the Netherlands, the Philippines, Malaysia, and India
		HS 440200 in the US, the Netherlands, Germany, China, and Korea, Rep.	HS 440200 in the Philippines, Srilanka, Pakistan, Malaysia, Vietnam, and Japan
		HS 530511 in China, Korea, Rep., and Japan	-
		HS 530519 in China	HS 530519 in Germany, Korea, Rep., Malaysia, and Japan
	Disadvantage	HS 570220 in China	HS 570220 in the Netherlands, and Vietnam

CHAPTER 6
CONCLUSION AND RECOMMENDATION

6.1 CONCLUSION

Based on result and analysis in previous chapter, this research is concludes as follows:

1. Using RCA method to analyze Indonesia's export competitiveness in coconuts the result shows that in coconut as whole, Indonesia has comparative advantage during period of 2004 – 2008. While in more specific product, from thirteen coconuts's products being exported, twelve products indicating that Indonesia has comparative advantage and one products indicating that Indonesia has comparative disadvantage. The products that indicate Indonesia has comparative advantage are HS 080110 (Coconuts, Fresh or Dried), HS 120300 (Copra), HS 151311 (Coconut or Copra Oil: Crude), HS 151319 (Coconut or Copra Oil: Refined), HS 151620 (Vegetables Fats and Oils), HS 151790 (Edible Preparations of Fats and Oils), HS 151800 (Vegetable Fats and Oils: Processed), HS 230650 (Coconut or Copra Oil-Cake and Residues), HS 380210 (Activated Carbon), HS 440200 (Wood Charcoal), HS 530511 (Coconut or Coir Fibre: Raw), and HS 530511 (Coconut or Coir Fibre: Processed). While the product that indicates Indonesia has comparative disadvantage is HS 570220 (Floor Coverings of Coconut Fibre or Coir). In addition during period of 2004 – 2008, based on data of world's coconut exporter provided from WITS database, Indonesia includes in top five exporter for ten products. However, on HS 380210 (Activated Carbon), HS 530511 (Coconut or Coir Fibre: Raw), and HS 570220 (Floor Coverings of Coconut Fibre or Coir) Indonesia is not included in its top five exporters.
2. Using CMSA method to analyze Indonesia's export competitiveness in coconuts the result shows that China is in the first place as the most competitive destination market for Indonesia's coconut products, in China Indonesia has ten products that have positive value on its competitiveness

index. Positive value in competitiveness index means that Indonesia has strong competitiveness compare to its competitors in its destination market. In second place is the United States, which has seven products that have positive value on its competitiveness index. In third place are Malaysia, India and Japan, which have six products that have positive value on its competitiveness index. In fourth place are the Netherlands, Germany, and Korea, Rep. which have four products that have positive value on its competitiveness index. In fifth place is Vietnam which has three products that have positive value on its competitiveness index. In sixth place are the Philippines, Srilanka, and Argentina which have one product that have positive value on its competitiveness index. Unfortunately, in Papua New Guinea, Solomon Islands, and Pakistan's market Indonesia is not has any products that have positive value on its competitiveness index.

3. The relationship between comparative advantage and competitiveness effect can be divided into four groups. First group, is where Indonesia has comparative advantage in related product and it is also has strong competitiveness in related market, such as HS 080110 in the US, the Netherlands, Germany, the Philippines, China, Malaysia, India, and Argentina's markets. Second group, is where Indonesia has comparative advantage in related product but it is has weak competitiveness on related market such as HS 080110 in Korea, Rep., Pakistan, Vietnam, and Japan's markets. Third group, is where Indonesia has comparative disadvantage in related product, however, it has strong competitiveness in related market such as HS 570220 in China's market. Finaly, is where Indonesia not only has comparative disadvantage in related product but also weak competitiveness in related market such as HS 570220 in the Netherlands, and Vietnam's market.

6.2 RECOMMENDATION

Indonesia has potential in coconut commodity, however, in its domestic industry some problems arise and need to be solved immediately. There are some recommendations that can be proposed as folllows:

1. Indonesia's export in coconuts is still dominated with low value added products, because of that the Indonesian government should concern to develop its coconut's industry, especially its downstream industries where it can provides more value added products and creative industry can play a significant role in it. Furthermore, the government should provides some incentives or facilitates the investors so they will increase their investment to produce more higher value added products and finally will increase our export's value in coconut commodity.
2. Indonesia's coconuts development masterplan is still unavailable, because of that the Indonesian government should create its coconut's national development masterplan strategy to lead the whole coconut industrial systems to form a solid coconut industrial systems in order to increase its strength to compete with its coconut competitors.
3. Indonesia's infrastructure and institutional support for the coconut industry is still not sufficient enough, because of that the Indonesian government should concern to provides sufficient infrastructure and institutional support to help the coconut industrial systems to grow and increases its strength. In addition, the infrastructure can be developed accordingly to national development strategy, by doing so, the government should be able to correct the industrial structure problem that still exists and to prevent it from becoming worst which then can endangering Indonesia's coconut's industry.

REFERENCES

Allorerung, David (2009). "Diversifikasi produk industri hilir kelapa", *Presentation paper for Bimbingan dan Pengawalan Agroindustri Kelapa Terpadu, Trade and Research Development Agency, Ministry of Agriculture, Ciamis 8-10 September 2009* .

Balassa, Bela (1965). "Trade liberalization and revealed comparative advantage", *The Manchester School.*

Djiwandono, S. (1997). "Pembiayaan pembangunan nasional: permasalahan, tantangan dan kebijakan, Wijoyo Nitisastro 70 tahun, pembangunan nasional teori kebijakan dan pelaksanaan", *Faculty of Economics, University of Indonesia.*

Fahreiza, Youshy (2008). "Indonesia's foreign trade policy: The possible impact of Indonesia – Japan Economic Partnership Agreement on Indonesia's competitiveness in textile and textile products", *Thesis Magister Perencanaan dan Kebijakan Publik FEUI – Depok.*

Hadi, Prajogo U. dan Sudi Mardianto (2004). "Analisis komparasi daya saing produk ekspor pertanian antar negara ASEAN dalam era perdagangan bebas AFTA", *Jurnal Agro Ekonomi Vol.22 No.1.*

Herman, Atih Surjati (2006). "Strengthening the competitiveness of the coconut industry through regional strategic alliances forum", *Presentation paper for The 42nd Cocotech Meeting and Coconut Festival 2006, Manila 21-25 August 2006.*

Mahanani, Suci (2009). "Assessing the competitiveness of Indonesia's ten largest export products to Tunisia and South Africa", *Thesis Magister Perencanaan dan Kebijakan Publik FEUI – Depok.*

Malian, A.H. (2004). "Kebijakan perdagangan internasional komoditas pertanian Indonesia", *Analisis Kebijakan Pertanian, Vol.2, No.2.*

Muslim, Chairul (2006)."Analisis daya saing produk ekspor agroindustri berbasis komoditi kelapa di Indonesia", *ICASEPS Working Paper No.87.*

Puntodewi, Fajarini (2003). "Kelayakan Free Trade Agreement (FTA) sebagai media peningkatan ekspor: Studi kasus FTA bilateral Indonesia – Cili", *Thesis Pascasarjana Ilmu Administrasi FISIPUI – Depok.*

Rachman, Hermanto (2005). "Analyzing the competitiveness of Indonesian agricultural commodities under WTO commitments", *IAARD Paper.*

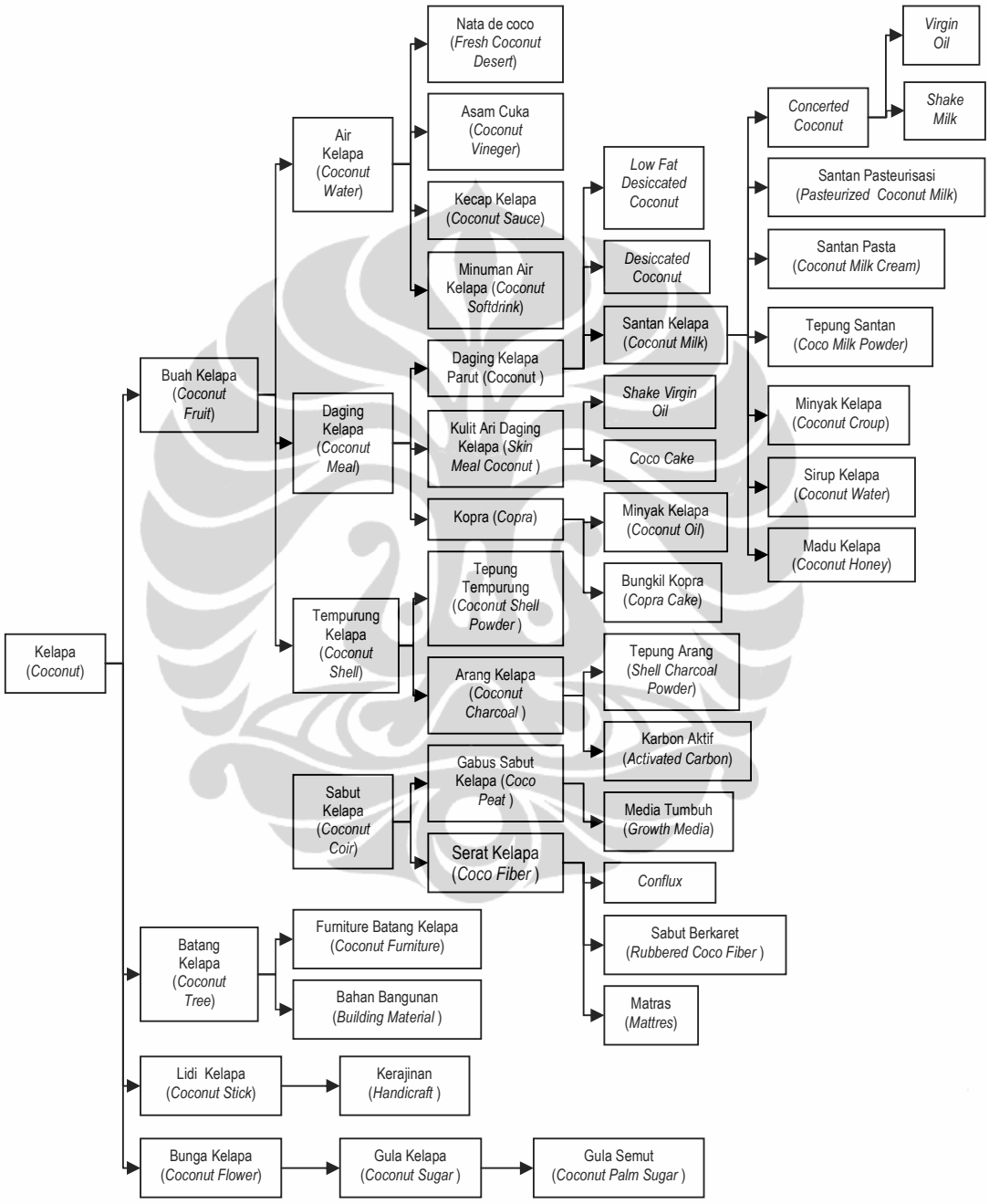
Sitohang, Yonatan Kriswidiyanto (2008). "Assessing Indonesian footwear export's performance: Case study The U.S., Germany, Belgium, U.K., The Netherlands and Italian markets", *Thesis Magister Perencanaan dan Kebijakan Publik FEUI – Depok.*

Suprihatini, Rohayati (2005). "Daya saing ekspor teh Indonesia di pasar dunia", *Jurnal Agro Ekonomi Vol.23 No.1.*

Sledge, Sally (2003). "The competitive advantage of nations: Empirical evidence from the banking industry", *AIB-SE (USA) 2003 Annual Meeting Clearwater-FL.*

ANNEXES

Annex 1 – The Coconut Industrial Tree in Indonesia



Source:
http://www.bi.go.id/web/id/DIBI/Info_Eksportir/Profil_komoditi/Profil_Komoditi/kelapa.htm

Annex 2 – Export Volume and Value of Coconut Products From Indonesia, The Philippines, India and Srilanka in 2007.

No.	Products	INDONESIA		PHILIPPINES		INDIA		SRILANKA	
		Volume (in MT)	Value (in 000 USD)	Volume (in MT)	Value (in 000 USD)	Volume (in MT)	Value (in 000 USD)	Volume (in MT)	Value (in 000 USD)
1	Fresh Coconut	8,693	1,226	973,188	173	1,043	147	57,763	13,274
2	Copra	46,920	8,821	-	-	1,357	255	14,058	10,844
3	Desiccated Coconut	60,648	46,466	130,674	157,238	312	239	45,393	53,633
4	CCO	739,923	570,410	886,561	728,613	3,584	2,762	1,372	1,724
5	Oil-Cake Residues	323,288	36,371	-	-	-	-	8,114	1,290
6	Oleo Chemical	-	-	58,025	77,335	-	-	-	-
7	Coconut Milk or Cream	27,437	23,739	1,927	2,432	-	-	8,007	8,616
8	Coconut Milk Powder	-	-	1,648	4,336	-	-	3,140	9,493
9	Shell Charcoal	610	75	25,553	6,949	10,707	2,911	3,059	795
10	Activated Carbon	26,325	21,928	30,474	34,654	-	-	17,880	22,284
11	Shell Powder	-	-	-	-	-	-	1,514	384
12	Nata de Coco	-	-	4,586	3,932	-	-	-	-
13	Coconut Liquid	-	-	507	324	-	-	-	-
14	Glicerin	-	-	13,542	12,027	-	-	-	-
15	Raw Coir Fibres	8,458	1,438	-	-	-	-	-	-
16	Coir Yarn	-	-	-	-	8,598	6,508	1,737	1,036
17	Coir Mattings	-	-	-	-	3,568	5,298	-	-
18	Coir Mats	-	-	-	-	75,423	109,935	-	-
19	Coir Wine	-	-	-	-	-	-	3,352	3,224
20	Matress Fibres	-	-	-	-	-	-	54,264	13,736
21	Twisted Fibres	-	-	-	-	-	-	22,863	7,968
22	Bristle Fibres	-	-	-	-	-	-	7,683	2,853
23	Rugs and Carpets	-	-	-	-	306	507	-	-
24	Coir Rope	-	-	-	-	261	229	-	-
25	Rubberized Coir	-	-	-	-	1,149	2,050	-	-
26	Other Fibres	-	-	-	-	3,281	3,578	-	-
27	Other Products	-	-	15,590	5,803	-	19	-	-
	TOTAL	1,233,609	710,454	1,169,087	1,033,816	108,546	134,438	192,436	151,154
	Value to volume ratio		0.58		0.88		1.24		0.79

Source: APCC 2008 (Allorerung, 2009:3)

Annex 3 – Indonesia' Exports in Coconut Based on HS Codes, 2004 – 2008 (in 000 USD)

Category	HS	Trade Value						
		2004	2005	2006	2007	2008	Total	Trend
Coconuts	080110	30,748.800	59,971.660	68,793.172	76,761.111	89,210.657	**325,485.400**	26.83
	120300	8,510.932	14,416.922	7,016.165	8,821.350	5,148.879	**43,914.248**	(13.90)
	151311	221,036.751	345,960.092	196,888.586	466,538.406	565,426.362	**1,795,850.197**	24.33
	151319	43,906.753	67,801.738	73,785.448	103,871.443	203,707.239	**493,072.621**	41.85
	151620	41,828.217	35,199.288	199,271.030	312,865.755	283,180.457	**872,344.747**	82.39
	151790	91,952.920	85,415.629	94,415.434	221,701.399	453,141.202	**946,626.584**	51.34
	151800	866.394	1,592.075	529.561	159,558.255	177,322.338	**339,868.623**	359.52
	230650	23,529.902	25,269.294	15,774.201	36,370.519	34,406.264	**135,350.180**	11.90
	380210	12,387.258	16,302.667	17,576.838	21,928.221	24,198.877	**92,393.861**	17.77
	440200	19,582.522	24,500.524	27,729.670	46,104.153	54,793.339	**172,710.208**	30.87
	530511	133.243	95.587	265.200	1,198.812	609.245	**2,302.087**	74.53
	530519	201.282	108.711	473.644	1,821.884	1,989.529	**4,595.050**	109.61
	570220	72.713	114.049	56.078	80.241	135.353	**458.434**	9.32
Total		**494,757.687**	**676,748.236**	**702,575.027**	**1,457,621.549**	**1,893,269.741**	**5,224,972.240**	**41.22**

Source: WITS, processed.

Annex 4 – Coconut Area and Production in Indonesia by Category of Producers, 2004 – 2009

Year	Area (*in Ha*)				Production (*in Ton*)			
	Smallholders	**Government**	**Private**	**Total**	**Smallholders**	**Government**	**Private**	**Total**
2004	3,723,879	4,883	68,242	3,797,004	3,000,839	4,489	49,183	3,054,511
2005	3,735,838	6,127	61,649	3,803,614	3,052,461	3,659	40,724	3,096,844
2006	3,720,490	5,668	62,734	3,788,892	3,061,408	2,897	66,853	3,131,158
2007	3,720,533	5,507	61,948	3,787,988	3,122,995	2,935	67,337	3,193,266
2008 *)	3,728,598	5,507	64,232	3,798,337	3,176,744	2,950	67,486	3,247,180
2009 **)	3,731,099	5,513	64,234	3,800,846	3,186,031	2,960	68,782	3,257,773

Notes:

**) preliminary*

***) estimation*

Source: Tree Crop Estate Statistics of Indonesia 2007 – 2009 for Coconut

Annex 5 – Revealed Comparative Advantage (RCA) Index of Indonesia's Coconuts, 2004 – 2008

(Trade Value in 000 USD)

	X_{ij}					X_{iw}					RCA				
HS	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
080110	30,748.800	59,971.660	68,793.172	76,761.111	89,210.657	305,573.440	352,452.675	339,519.284	393,997.571	578,686.243	12.02	19.20	22.63	21.99	14.72
120300	8,510.932	14,416.922	7,016.165	8,821.350	5,148.879	36,695.279	63,753.454	31,500.236	61,811.545	34,286.195	27.70	25.51	24.88	16.11	14.34
151311	221,036.751	345,960.092	196,888.586	466,538.406	565,426.362	753,642.787	925,512.572	687,024.261	1,074,099.692	1,433,260.833	35.03	42.17	32.01	49.03	37.67
151319	43,906.753	67,801.738	73,785.448	103,871.443	203,707.239	468,851.494	511,376.878	474,770.429	581,550.676	961,354.978	11.18	14.96	17.36	20.16	20.23
151620	41,828.217	35,199.288	199,271.030	312,865.755	283,180.457	2,909,811.271	2,877,803.131	2,924,639.576	3,615,558.099	5,101,055.139	1.72	1.38	7.61	9.77	5.30
151790	91,952.920	85,415.629	94,415.434	221,701.399	453,141.202	1,524,529.697	1,770,836.644	2,043,984.413	2,841,804.257	4,336,020.386	7.20	5.44	5.16	8.81	9.98
151800	866.394	1,592.075	529.561	159,558.255	177,322.338	591,938.322	559,383.052	667,725.270	1,074,748.659	1,672,489.184	0.17	0.32	0.09	16.76	10.12
230650	23,529.902	25,269.294	15,774.201	36,370.519	34,406.264	72,085.859	63,131.407	54,428.479	89,058.516	104,527.946	38.99	45.16	32.37	46.10	31.43
380210	12,387.258	16,302.667	17,576.838	21,928.221	24,198.877	533,842.098	641,646.813	764,912.979	950,209.839	1,154,275.129	2.77	2.87	2.57	2.60	2.00
440200	19,582.522	24,500.524	27,729.670	46,104.153	54,792.449	325,704.932	334,897.513	357,226.725	454,454.541	463,265.828	7.18	8.25	8.67	11.45	11.29
530511	133.243	95.587	265.200	1,198.812	609.245	50,738.378	62,129.530	41,177.119	42,103.046	7,551.314	0.31	0.17	0.72	3.21	7.70
530519	201.282	108.711	473.644	1,821.884	1,989.529	19,214.232	19,804.455	13,453.638	6,604.235	5,471.170	1.25	0.62	3.93	31.14	34.72
570220	72.713	114.049	56.078	80.241	135.353	113,852.676	146,016.769	136,804.914	159,405.532	162,079.289	0.08	0.09	0.05	0.06	0.08

X_j				
2004	2005	2006	2007	2008
71,582,468.122	85,659,947.504	100,798,615.667	114,100,872.803	137,020,424.402

X_{tw}				
2004	2005	2006	2007	2008
8,549,515,937.043	9,664,233,812.180	11,257,504,174.179	12,879,720,568.471	13,083,185,850.621

Source: WITS, processed.

Annex 6 – The World's Exporters on HS 080110, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Philippines	100,577.277	128,159.874	139,415.765	159,912.076	241,164.568	769,229.560	41.67
2	Indonesia	30,748.800	59,971.660	68,793.172	76,761.111	89,210.657	325,485.400	15.42
3	Sri Lanka	55,509.003	43,664.661	-	-	77,161.983	176,335.647	13.33
4	Singapore	25,495.604	31,092.799	27,994.285	34,458.808	31,792.631	150,834.127	5.49
5	Netherlands	12,941.115	13,674.127	16,011.450	23,368.228	29,336.032	95,330.952	5.07
6	Belgium	10,256.348	11,872.990	11,125.066	16,777.363	20,360.370	70,392.137	3.52
7	Vietnam	9,561.399	10,402.500	22,816.783	17,357.635	-	60,138.317	-
8	Thailand	7,936.437	9,645.320	10,284.679	10,481.486	12,347.139	50,695.061	2.13
9	Germany	4,320.000	5,305.000	5,958.000	8,261.000	10,934.000	34,778.000	1.89
10	Malaysia	7,440.948	7,008.519	6,521.854	6,283.713	5,414.480	32,669.514	0.94
11	Cote d'Ivoire	6,519.077	6,547.715	4,062.746	3,278.322	3,695.743	24,103.603	0.64
12	European Union	3,931.081	3,871.091	4,270.254	5,558.827	6,244.271	23,875.524	1.08
13	Mexico	1,957.722	3,848.592	4,467.282	4,775.105	5,406.909	20,455.610	0.93
14	India	1,200.150	1,458.261	1,543.478	2,181.093	9,519.244	15,902.226	1.64
15	United Kingdom	2,741.908	2,369.935	2,443.962	3,580.462	3,550.293	14,686.560	0.61
16	Nigeria	-	-	-	3,477.710	8,698.556	12,176.266	1.50
17	France	1,157.854	1,419.680	1,299.277	2,154.353	4,401.743	10,432.907	0.76
18	Ghana	8,836.583	124.760	131.345	50.132	25.354	9,168.174	0.00
19	Others	14,442.134	12,015.191	12,379.886	15,280.147	19,422.270	73,539.628	3.36
	Total	305,573.440	352,452.675	339,519.284	393,997.571	578,686.243	1,970,229.213	100.00

Source: WITS, processed.

Annex 7 – The World's Exporters on HS 120300, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share	2007 Share
1	Vietnam	12,310.962	27,984.378	13,412.683	42,691.071	-	96,399.094	-	69.07
2	Indonesia	8,510.932	14,416.922	7,016.165	8,821.350	5,148.879	43,914.248	15.02	14.27
3	Sri Lanka	10,385.677	13,979.277	-	-	13,712.527	38,077.481	39.99	-
4	India	247.274	716.771	995.635	1,222.889	10,409.332	13,591.901	30.36	1.98
5	Belgium	883.417	2,715.203	5,525.992	2,490.353	-	11,614.965	-	4.03
6	Vanuatu	-	-	2,918.463	4,770.658	-	7,689.121	-	7.72
7	Egypt, Arab Rep.	391.328	528.407	759.801	481.825	2,648.522	4,809.883	7.72	0.78
8	Papua New Guinea	3,026.346	-	-	-	-	3,026.346	-	-
9	Cote d'Ivoire	239.381	2,051.009	279.897	165.463	60.562	2,796.312	0.18	0.27
10	Malaysia	11.279	28.590	170.149	683.012	966.754	1,859.784	2.82	1.10
11	Guyana	431.481	211.557	121.221	111.276	662.467	1,538.002	1.93	0.18
12	Kiribati	-	917.891	-	-	-	917.891	-	-
13	Thailand	6.354	4.197	17.341	15.985	304.419	348.296	0.89	0.03
14	France	-	1.244	5.021	205.830	39.828	251.923	0.12	0.33
15	Rwanda	-	-	174.254	-	-	174.254	-	-
16	Tanzania	57.536	15.838	19.881	23.265	-	116.520	-	0.04
17	United Kingdom	15.589	15.449	20.382	30.830	29.823	112.073	0.09	0.05
18	European Union	32.883	11.537	8.774	7.343	48.537	109.074	0.14	0.01
19	Others	144.840	155.184	54.577	90.395	254.545	699.541	0.74	0.15
	Total	36,695.279	63,753.454	31,500.236	61,811.545	34,286.195	228,046.709	100.00	100.00

Source: WITS, processed

Annex 8 – The World's Exporters on HS 151311, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Philippines	416,789.572	482,754.311	402,112.020	508,160.214	665,062.773	2,474,878.890	46.40
2	Indonesia	221,036.751	345,960.092	196,888.586	466,538.406	565,426.362	1,795,850.197	39.45
3	Netherlands	23,510.811	23,943.088	28,630.648	22,725.746	95,533.664	194,343.957	6.67
4	Malaysia	26,520.480	31,445.227	33,084.924	31,052.623	50,449.846	172,553.100	3.52
5	Mozambique	6,142.091	4,357.374	5,687.818	6,428.491	5,074.032	27,689.806	0.35
6	Cote d'Ivoire	3,873.759	3,394.963	2,483.793	7,378.117	8,182.399	25,313.031	0.57
7	Papua New Guinea	24,411.853	-	-	-	-	24,411.853	-
8	Singapore	3,507.152	3,835.251	3,325.483	4,718.420	7,008.037	22,394.343	0.49
9	French Polynesia	3,109.954	3,032.823	2,562.746	3,704.754	6,131.004	18,541.281	0.43
10	Belgium	7,557.825	4,480.125	230.276	1,889.910	1,158.437	15,316.573	0.08
11	United States	2,238.948	3,736.295	1,964.679	2,592.064	1,516.031	12,048.017	0.11
12	United Kingdom	536.086	1,439.953	3,343.669	2,753.810	3,171.515	11,245.033	0.22
13	Thailand	1,492.066	1,176.304	57.760	2,512.740	4,791.979	10,030.849	0.33
14	Bulgaria	0.218	-	-	272.429	9,534.710	9,807.357	0.67
15	Fiji	2,023.256	2,057.698	1,235.168	2,722.402	-	8,038.524	-
16	Vanuatu	-	-	1,231.927	4,503.553	-	5,735.480	-
17	Guyana	530.726	637.654	814.648	1,260.188	2,172.946	5,416.162	0.15
18	United Arab Emirates	-	4,607.583	-	99.503	13.660	4,720.746	0.00
19	Others	10,361.239	8,653.831	3,370.116	4,786.322	8,033.438	35,204.946	0.56
	Total	753,642.787	925,512.572	687,024.261	1,074,099.692	1,433,260.833	4,873,540.145	100.00

Source: WITS, processed.

Annex 9 – The World's Exporters on HS 151319, 2004 – 2009 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Philippines	161,062.421	174,462.359	176,656.695	225,652.845	374,548.861	1,112,383.181	38.96
2	Netherlands	89,459.541	90,767.833	87,561.692	89,281.678	173,920.750	530,991.494	18.09
3	Indonesia	43,906.753	67,801.738	73,785.448	103,871.443	203,707.239	493,072.621	21.19
4	Malaysia	78,270.287	87,571.670	62,958.977	93,834.971	122,881.695	445,517.600	12.78
5	Germany	26,577.000	27,688.000	25,496.000	21,277.000	21,904.000	122,942.000	2.28
6	European Union	29,413.778	25,407.376	13,187.686	11,048.237	9,364.314	88,421.391	0.97
7	India	6,029.966	6,381.216	5,371.395	6,847.064	13,680.169	38,309.810	1.42
8	Singapore	6,733.775	5,747.785	3,979.800	5,528.453	9,325.207	31,315.020	0.97
9	France	3,259.638	2,780.881	2,445.403	3,463.429	7,881.544	19,830.895	0.82
10	United States	1,968.824	2,727.903	3,024.471	2,821.766	4,007.822	14,550.786	0.42
11	Spain	2,271.397	2,773.221	4,458.608	2,980.983	-	12,484.209	-
12	Italy	2,735.936	3,450.310	2,079.350	1,225.202	2,825.508	12,316.306	0.29
13	Belgium	1,761.931	2,404.303	3,187.763	1,987.925	2,517.878	11,859.800	0.26
14	Sweden	1,588.325	1,543.382	1,172.650	700.226	2,069.609	7,074.192	0.22
15	Trinidad and Tobago	698.167	1,218.425	1,324.020	1,350.991	1,562.716	6,154.319	0.16
16	Vietnam	3,686.145	1,415.605	5.274	11.887	-	5,118.911	-
17	Denmark	1,226.023	1,202.923	975.503	722.536	536.316	4,663.301	0.06
18	Samoa	963.639	721.879	827.605	810.654	968.241	4,292.018	0.10
19	Others	7,237.948	5,310.069	6,272.089	8,133.386	9,653.109	36,606.601	1.00
	Total	468,851.494	511,376.878	474,770.429	581,550.676	961,354.978	2,997,904.455	100.00

Source: WITS, processed.

Annex 10 – The World's Exporters on HS 151620, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Malaysia	937,553.248	957,323.311	948,269.019	1,398,224.883	1,780,425.837	6,021,796.298	34.90
2	Germany	284,017.000	299,317.000	322,858.000	372,161.000	421,944.000	1,700,297.000	8.27
3	Netherlands	221,113.127	184,384.911	188,364.493	257,429.410	406,377.994	1,257,669.935	7.97
4	Indonesia	41,828.217	35,199.288	199,271.030	312,865.755	283,180.457	872,344.747	5.55
5	European Union	217,379.816	149,809.358	128,389.481	126,016.749	168,621.973	790,217.377	3.31
6	Belgium	102,641.271	83,846.770	65,128.566	68,685.344	431,337.822	751,639.773	8.46
7	United States	130,439.362	112,219.014	91,338.928	132,333.713	209,489.467	675,820.484	4.11
8	Turkey	27,191.157	44,091.259	125,145.192	78,086.908	262,087.661	536,602.177	5.14
9	Pakistan	51,646.240	92,096.088	99,279.096	103,877.962	165,906.355	512,805.741	3.25
10	Denmark	110,312.771	135,309.290	118,172.534	37,362.380	56,930.461	458,087.436	1.12
11	Singapore	52,806.092	58,375.768	62,359.848	82,510.244	117,109.860	373,161.812	2.30
12	Jordan	145,462.877	84,428.020	66,883.289	10,193.593	7,585.894	314,553.673	0.15
13	Canada	90,210.920	74,987.255	52,586.863	48,891.990	43,451.291	310,128.319	0.85
14	Thailand	46,475.845	42,681.439	49,084.200	59,570.632	99,829.242	297,641.358	1.96
15	United Kingdom	55,636.531	75,070.485	58,652.230	44,836.478	43,629.398	277,825.122	0.86
16	Sweden	95,035.578	24,355.944	30,382.312	32,698.045	37,526.430	219,998.309	0.74
17	Sri Lanka	9,699.397	122,584.427	-	-	34,032.898	166,316.722	0.67
18	India	42,692.905	19,902.699	33,374.050	26,485.521	41,946.436	164,401.611	0.82
19	Others	247,668.917	281,820.805	285,100.445	423,327.492	489,641.663	1,727,559.322	9.60
	Total	2,909,811.271	2,877,803.131	2,924,639.576	3,615,558.099	5,101,055.139	17,428,867.216	100.00

Source: WITS, processed.

Annex 11 – The World's Exporters on HS 151790, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Malaysia	204,501.045	171,064.327	217,491.185	269,204.857	694,913.882	1,557,175.296	16.03
2	Belgium	172,505.308	189,216.752	213,991.167	305,636.261	457,098.973	1,338,448.461	10.54
3	European Union	140,678.578	184,520.869	240,723.036	292,973.229	386,869.816	1,245,765.528	8.92
4	Indonesia	91,952.920	85,415.629	94,415.434	221,701.399	453,141.202	946,626.584	10.45
5	Netherlands	123,548.708	138,981.094	157,630.644	200,775.663	275,656.709	896,592.818	6.36
6	United States	92,151.314	103,696.504	107,954.916	200,550.661	272,655.147	777,008.542	6.29
7	Germany	68,727.000	90,403.000	135,960.000	184,396.000	244,539.000	724,025.000	5.64
8	Argentina	111,654.707	102,609.524	139,641.871	161,962.011	198,461.647	714,329.760	4.58
9	Denmark	72,645.854	100,761.216	139,443.986	174,782.495	219,213.424	706,846.975	5.06
10	Sweden	19,670.772	111,997.743	109,957.272	148,462.612	200,277.531	590,365.930	4.62
11	United Kingdom	121,373.386	87,786.410	82,474.862	65,851.618	61,556.238	419,042.514	1.42
12	Canada	22,669.153	34,168.189	40,409.303	77,602.950	111,818.946	286,668.541	2.58
13	Russian Federation	18,646.846	29,425.780	38,347.066	67,949.143	92,062.286	246,431.121	2.12
14	Singapore	27,446.539	27,989.379	29,485.826	40,242.173	52,290.875	177,454.792	1.21
15	Turkey	28,468.213	28,139.759	17,548.779	37,244.211	64,285.962	175,686.924	1.48
16	Poland	5,242.425	15,400.952	18,333.777	26,258.113	70,458.511	135,693.778	1.62
17	France	18,320.396	20,563.589	20,202.189	24,222.058	34,685.882	117,994.114	0.80
18	Switzerland	489.257	23,602.520	20,109.791	27,820.466	37,516.158	109,538.192	0.87
19	Others	183,837.276	225,093.408	219,863.309	314,168.337	408,518.197	1,351,480.527	9.42
	Total	1,524,529.697	1,770,836.644	2,043,984.413	2,841,804.257	4,336,020.386	12,517,175.397	100.00

Source: WITS, processed.

Annex 12 – The World's Exporters on HS 151800, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Netherlands	71,957.060	73,187.346	100,355.526	159,879.204	253,695.949	659,075.085	15.17
2	United States	88,669.271	70,893.597	78,861.386	101,489.565	206,175.736	546,089.555	12.33
3	Argentina	35,848.279	40,708.192	60,772.579	90,309.588	181,977.859	409,616.497	10.88
4	Germany	60,707.000	54,473.000	61,322.000	74,522.000	124,978.000	376,002.000	7.47
5	Indonesia	866.394	1,592.075	529.561	159,558.255	177,322.338	339,868.623	10.60
6	France	42,239.760	38,892.528	38,919.323	52,573.063	58,860.085	231,484.759	3.52
7	European Union	38,626.797	42,189.118	41,907.777	51,079.375	56,411.814	230,214.881	3.37
8	Singapore	4,221.615	4,942.489	30,564.984	42,811.275	140,431.033	222,971.396	8.40
9	Belgium	40,792.629	29,584.782	28,872.314	32,740.375	30,027.302	162,017.402	1.80
10	United Kingdom	23,400.647	30,978.544	31,261.636	31,579.205	41,691.072	158,911.104	2.49
11	China	16,709.903	20,716.603	24,680.989	47,045.986	49,742.538	158,896.019	2.97
12	Italy	24,258.296	21,581.354	21,956.329	32,559.920	47,726.387	148,082.286	2.85
13	Taiwan, China	21,179.401	18,973.370	18,497.456	28,129.914	25,359.975	112,140.116	1.52
14	India	10,849.408	10,289.546	12,341.016	31,969.773	40,767.275	106,217.018	2.44
15	Canada	7,652.437	14,051.339	15,827.511	8,997.843	29,306.680	75,835.810	1.75
16	Malaysia	7,836.514	9,499.104	10,870.822	11,394.569	23,333.040	62,934.049	1.40
17	Brazil	5,412.324	9,326.363	12,098.319	19,313.746	15,203.594	61,354.346	0.91
18	Thailand	17,987.268	11,145.538	7,360.464	10,038.946	11,629.540	58,161.756	0.70
19	Others	72,723.319	56,358.164	70,725.278	88,756.057	157,848.967	446,411.785	9.44
	Total	591,938.322	559,383.052	667,725.270	1,074,748.659	1,672,489.184	4,566,284.487	100.00

Source: WITS, processed.

Annex 13 – The World's Exporters on HS 230650, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Philippines	31,066.376	28,061.214	30,342.396	43,158.586	58,273.226	190,901.798	55.75
2	Indonesia	23,529.902	25,269.294	15,774.201	36,370.519	34,406.264	135,350.180	32.92
3	Netherlands	5,132.415	3,816.816	2,711.293	2,936.473	2,205.950	16,802.947	2.11
4	Sri Lanka	3,493.653	2,196.988	-	-	5,201.988	10,892.629	4.98
5	Thailand	18.512	3.071	5.745	4,782.587	1,639.937	6,449.852	1.57
6	Mozambique	1,130.228	313.496	3,286.661	362.402	137.794	5,230.581	0.13
7	Germany	2,682.000	989.000	-	-	743.000	4,414.000	0.71
8	Belgium	1,045.161	1,493.531	1,346.008	62.538	437.564	4,384.802	0.42
9	Malaysia	996.611	275.944	355.627	857.405	905.181	3,390.768	0.87
10	Papua New Guinea	1,587.092	-	-	-	-	1,587.092	-
11	India	627.609	49.522	0.946	29.118	73.327	780.522	0.07
12	Cote d'Ivoire	100.602	96.173	185.879	103.062	188.407	674.123	0.18
13	Costa Rica	99.907	131.382	129.416	5.398	55.264	421.367	0.05
14	Spain	269.852	-	40.829	34.625	-	345.306	-
15	United States	5.804	117.306	43.708	91.892	43.843	302.553	0.04
16	Portugal	-	4.094	63.914	40.825	52.693	161.526	0.05
17	Japan	-	-	35.213	67.644	49.227	152.084	0.05
18	Swaziland	22.354	105.086	4.403	-	-	131.843	-
19	Others	277.781	208.490	102.240	155.442	114.281	858.234	0.11
	Total	72,085.859	63,131.407	54,428.479	89,058.516	104,527.946	383,232.207	100.00

Source: WITS, processed.

Annex 14 – The World's Exporters on HS 380210, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	China	117,832.974	129,319.461	153,789.524	203,144.629	255,813.607	859,900.195	22.16
2	United States	86,612.082	89,516.326	106,369.233	115,149.240	125,913.857	523,560.738	10.91
3	European Union	49,541.463	69,892.622	94,024.312	112,870.742	133,555.541	459,884.680	11.57
4	Netherlands	24,487.475	29,310.759	84,330.254	96,922.817	117,212.969	352,264.274	10.15
5	Japan	63,691.978	59,792.237	53,878.047	50,954.655	58,011.954	286,328.871	5.03
6	Germany	27,938.000	31,184.000	53,190.000	52,546.000	55,923.000	220,781.000	4.84
7	United Kingdom	32,844.048	35,630.466	35,275.240	41,962.977	39,998.771	185,711.502	3.47
8	France	-	32,276.889	41,816.651	51,698.971	55,415.693	181,208.204	4.80
9	Philippines	32,245.021	39,181.606	37,906.777	40,000.013	27,692.411	177,025.828	2.40
10	Belgium	-	-	-	63,792.590	86,953.322	150,745.912	7.53
11	Indonesia	12,387.258	16,302.667	17,576.838	21,928.221	24,198.877	92,393.861	2.10
12	India	6,719.966	14,384.990	15,438.057	18,049.583	28,167.711	82,760.307	2.44
13	Malaysia	12,878.258	15,361.428	16,120.902	15,480.991	16,749.507	76,591.086	1.45
14	Sri Lanka	17,020.130	19,225.835	-	-	34,332.668	70,578.633	2.97
15	Italy	7,588.021	9,580.387	11,066.802	12,753.098	14,267.448	55,255.756	1.24
16	Thailand	6,225.934	8,143.848	8,000.701	7,644.028	11,264.516	41,279.027	0.98
17	Egypt, Arab Rep.	142.354	833.247	-	211.433	21,568.404	22,755.438	1.87
18	Austria	4,353.180	4,425.159	4,068.852	4,737.507	4,576.614	22,161.312	0.40
19	Others	31,333.956	37,284.886	32,060.789	40,362.344	42,658.259	183,700.234	3.70
	Total	533,842.098	641,646.813	764,912.979	950,209.839	1,154,275.129	4,044,886.858	100.00

Source: WITS, processed.

Annex 15 – The World's Exporters on HS 440200, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Indonesia	19,582.522	24,500.524	27,729.670	46,104.153	54,792.449	172,709.318	11.83
2	Poland	27,021.195	29,676.606	32,229.929	36,115.536	46,736.169	171,779.435	10.09
3	Argentina	18,575.800	21,411.451	28,870.236	35,763.615	45,115.892	149,736.994	9.74
4	Belgium	24,440.879	22,880.346	25,632.457	32,292.780	35,507.693	140,754.155	7.66
5	China	39,067.346	22,501.106	26,110.757	20,113.710	22,962.334	130,755.253	4.96
6	European Union	14,206.848	16,274.778	19,907.047	22,824.112	24,710.588	97,923.373	5.33
7	Paraguay	7,046.981	8,117.586	13,479.115	23,861.512	40,082.769	92,587.963	8.65
8	Netherlands	9,945.044	17,759.574	9,436.756	26,166.044	25,220.318	88,527.736	5.44
9	Ukraine	8,876.190	12,343.285	14,823.891	20,202.368	23,927.958	80,173.692	5.17
10	Malaysia	11,289.191	12,327.262	12,822.762	16,186.938	15,873.873	68,500.026	3.43
11	South Africa	16,667.630	21,409.237	10,614.635	5,976.345	7,746.067	62,413.914	1.67
12	Spain	14,246.375	11,850.086	17,063.912	13,965.920	-	57,126.293	-
13	Nigeria	-	-	436.256	38,582.575	6,381.592	45,400.423	1.38
14	United States	6,300.666	8,266.279	9,490.496	9,175.154	10,525.108	43,757.703	2.27
15	Philippines	9,128.493	8,839.843	8,062.949	8,649.894	8,526.322	43,207.501	1.84
16	Bulgaria	8,954.766	10,035.371	10,355.239	6,883.741	3,895.950	40,125.067	0.84
17	Bosnia and Herzegovina	5,831.695	6,911.407	7,341.379	8,589.783	9,466.377	38,140.641	2.04
18	Mexico	5,894.567	7,083.692	6,932.838	8,358.094	9,251.619	37,520.810	2.00
19	Others	78,628.744	72,709.080	75,886.401	74,642.267	72,542.750	374,409.242	15.66
	Total	325,704.932	334,897.513	357,226.725	454,454.541	463,265.828	1,935,549.539	100.00

Source: WITS, processed.

Annex 16 – The World's Exporters on HS 530511, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Sri Lanka	30,820.127	38,039.121	-	-	-	68,859.248	-
2	Vietnam	10,303.415	11,700.994	22,632.499	16,631.127	-	61,268.035	-
3	India	5,812.729	9,864.285	14,863.411	22,434.830	5,005.212	57,980.467	66.28
4	Philippines	8.123	55.649	961.433	843.991	1,095.015	2,964.211	14.50
5	Thailand	2,175.733	501.323	116.520	-	-	2,793.576	-
6	Indonesia	133.243	95.587	265.200	1,198.812	609.245	2,302.087	8.07
7	Germany	333.000	500.000	646.000	-	-	1,479.000	-
8	Mozambique	-	3.510	0.521	281.944	806.973	1,092.948	10.69
9	Cote d'Ivoire	214.840	237.694	163.386	8.836	-	624.756	-
10	European Union	161.081	231.827	226.820	-	-	619.728	-
11	United Kingdom	16.830	25.634	402.902	-	-	445.366	-
12	United States	132.151	121.632	170.764	-	-	424.547	-
13	Bangladesh	-	94.161	-	297.339	-	391.500	-
14	Ghana	-	133.515	216.035	25.694	2.874	378.118	0.04
15	Malaysia	20.810	19.962	141.069	161.602	31.861	375.304	0.42
16	Mexico	328.452	2.025	0.005	-	-	330.482	-
17	Egypt, Arab Rep.	-	103.314	-	190.376	-	293.690	-
18	Belgium	54.119	164.000	20.428	-	-	238.547	-
19	Others	223.725	235.297	350.126	28.495	0.134	837.777	0.00
	Total	50,738.378	62,129.530	41,177.119	42,103.046	7,551.314	203,699.387	100.00

Source: WITS, processed.

Annex 17 – The World's Exporters on HS 530519, 2004 – 2009 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	Sri Lanka	6,950.194	7,863.621	-	-	-	14,813.815	-
2	Thailand	4,859.184	3,933.501	4,599.304	-	-	13,391.989	-
3	India	864.194	912.341	1,473.166	1,202.501	2,349.751	6,801.953	42.95
4	Philippines	1,405.102	1,430.146	1,451.354	1,285.101	841.610	6,413.313	15.38
5	Indonesia	201.282	108.711	473.644	1,821.884	1,989.529	4,595.050	36.36
6	European Union	1,185.947	1,028.210	608.008	-	-	2,822.165	-
7	Malaysia	83.922	574.414	790.618	1,073.137	255.037	2,777.128	4.66
8	Netherlands	574.822	1,086.965	787.757	-	-	2,449.544	-
9	United States	532.200	402.766	987.565	-	-	1,922.531	-
10	Vietnam	48.260	141.607	571.067	944.867	-	1,705.801	-
11	United Kingdom	754.339	392.060	194.999	-	-	1,341.398	-
12	Denmark	161.162	223.835	236.311	-	-	621.308	-
13	Cote d'Ivoire	96.087	151.992	151.634	129.366	-	529.079	-
14	Brazil	81.586	187.964	208.136	34.256	-	511.942	-
15	Germany	179.000	249.000	78.000	-	-	506.000	-
16	Portugal	143.344	152.684	134.639	-	-	430.667	-
17	France	138.047	201.567	80.342	-	-	419.956	-
18	China	79.214	197.753	128.788	-	-	405.755	-
19	Others	876.346	565.318	498.306	113.123	35.243	2,088.336	0.64
	Total	19,214.232	19,804.455	13,453.638	6,604.235	5,471.170	64,547.730	100.00

Source: WITS, processed.

Annex 18 – The World's Exporters on HS 570220, 2004 – 2008 (in 000 USD)

No.	Exporting Countries	2004	2005	2006	2007	2008	Total	2008 Share
1	India	84,071.221	113,287.145	109,530.143	125,748.185	120,097.621	552,734.315	74.10
2	Netherlands	5,467.093	9,135.982	8,950.533	9,116.931	9,229.031	41,899.570	5.69
3	Sri Lanka	8,916.366	6,627.443	-	-	5,462.033	21,005.842	3.37
4	Germany	1,964.000	3,015.000	2,873.000	4,216.000	5,880.000	17,948.000	3.63
5	European Union	2,189.421	3,095.247	3,380.039	3,218.786	3,896.637	15,780.130	2.40
6	Belgium	1,515.280	1,622.252	2,253.523	1,287.047	1,854.101	8,532.203	1.14
7	United Kingdom	611.382	799.783	866.817	1,742.051	3,320.606	7,340.639	2.05
8	Thailand	1.714	0.112	-	2,942.419	4,287.453	7,231.698	2.65
9	France	1,809.529	1,340.049	1,154.913	1,108.737	526.616	5,939.844	0.32
10	United States	871.975	947.485	710.033	909.060	1,569.367	5,007.920	0.97
11	Italy	886.147	1,114.102	859.899	1,279.898	841.664	4,981.710	0.52
12	China	208.404	339.810	1,024.952	1,526.143	1,035.375	4,134.684	0.64
13	Sweden	933.010	801.567	825.133	698.890	618.835	3,877.435	0.38
14	Switzerland	1,010.721	661.072	787.251	790.369	490.166	3,739.579	0.30
15	Austria	694.883	708.989	540.133	709.665	955.562	3,609.232	0.59
16	Portugal	573.365	599.077	929.009	773.691	630.249	3,505.391	0.39
17	Spain	272.218	477.575	503.851	1,022.306	-	2,275.950	-
18	Denmark	670.696	353.992	194.778	540.819	513.692	2,273.977	0.32
19	Others	1,185.251	1,090.087	1,420.907	1,774.535	870.281	6,341.061	0.54
	Total	113,852.676	146,016.769	136,804.914	159,405.532	162,079.289	718,159.180	100.00

Source: WITS, processed.

Annex 19 – Standard Growth and Indonesia's Exports Growth, 2004 – 2008.

Component	2004-2008
World's Standard Growth	0.58
Indonesia's Export Growth	0.91

Source: WITS, processed.

Annex 20 – Result of CMSA Calculation in the US Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	0.000000098	0.000000830
151311	Coconut (copra) oil crude	0.000988547	(0.000061477)	0.000749918
151319	Coconut (copra) oil or fraction simply …	0.000358027	0.000009310	0.000167905
151790	Edible preparations of fats and oil …	0.001632672	0.000002154	(0.000001165)
151800	Animal or vegetable fats and oils …	0.000016230	0.000008174	0.001802338
230650	Coconut or copra oil-cake and other …	(0.000043752)	(0.000000173)	0.000000343
380210	Activated carbon	0.000090742	(0.000007464)	0.000036746
440200	Wood charcoal	(0.000047653)	(0.000000188)	0.000000251

Source: WITS, processed.

Annex 21 – Result of CMSA Calculation in the Netherlands Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	0.000000123	0.000006687
151311	Coconut (copra) oil crude	0.000988547	(0.000051239)	0.001112514
151620	Vegetables fats and oil and their ...	0.000146698	(0.000000312)	(0.000078565)
151800	Animal or vegetable fats and oils …	0.000016230	(0.000000016)	0.000131031
230650	Coconut or copra oil-cake and other …	(0.000043752)	(0.000122044)	(0.000001474)
380210	Activated carbon	0.000090742	0.000008471	(0.000032328)
440200	Wood charcoal	(0.000047653)	(0.000000631)	0.000001166
570220	Floor coverings of coconut fibres (coir)	(0.000000169)	(0.000000001)	(0.000000003)

Source: WITS, processed.

Annex 22 – Result of CMSA Calculation in Germany Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	0.000000695	0.000034935
151311	Coconut (copra) oil crude	0.000988547	0.000010888	(0.000114070)
151319	Coconut (copra) oil or fraction simply …	0.000358027	0.000018871	(0.000129591)
151620	Vegetables fats and oil and their ...	0.000146698	0.000002400	(0.000010687)
151790	Edible preparations of fats and oil …	0.001632672	0.000000168	0.000002854
151800	Animal or vegetable fats and oils …	0.000016230	(0.000000002)	(0.000000004)
230650	Coconut or copra oil-cake and other …	(0.000043752)	(0.000004951)	(0.000000433)
380210	Activated carbon	0.000090742	(0.000000227)	0.000004854
440200	Wood charcoal	(0.000047653)	(0.000000254)	0.000005799
530519	Coconut (coir) fibre, processed not …	(0.000003597)	(0.000000016)	(0.000000002)

Source: WITS, processed.

Annex 23 – Result of CMSA Calculation in the Philippines Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	(0.000000046)	0.000000327
120300	Copra	(0.000077043)	(0.000062933)	(0.000012811)
151620	Vegetables fats and oil and their ...	0.000146698	0.000000567	(0.000003676)
151790	Edible preparations of fats and oil …	0.001632672	0.000013536	(0.000034615)
380210	Activated carbon	0.000090742	0.000000023	(0.000000330)
440200	Wood charcoal	(0.000047653)	(0.000000390)	(0.000000256)

Source: WITS, processed.

Annex 24 – Result of CMSA Calculation in China Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	(0.000010239)	0.000030517
151311	Coconut (copra) oil crude	0.000988547	0.000538296	(0.000030916)
151319	Coconut (copra) oil or fraction …	0.000358027	(0.000023228)	0.000162045
151620	Vegetables fats and oil and their ...	0.000146698	(0.000000782)	0.002196698
151790	Edible preparations of fats and oil …	0.001632672	(0.000300466)	0.000171623
230650	Coconut or copra oil-cake and other …	(0.000043752)	0.000000368	0.000000490
380210	Activated carbon	0.000090742	(0.000000030)	0.000009430
440200	Wood charcoal	(0.000047653)	(0.000002320)	0.000035838
530511	Coconut (coir) fibre raw	(0.000002668)	(0.000000116)	0.000007375
530519	Coconut (coir) fibre, processed not …	(0.000003597)	0.000000376	0.000025132
570220	Floor coverings of coconut fibres (coir)	(0.000000169)	0.000000170	0.000000460

Source: WITS, processed.

Annex 25 – Result of CMSA Calculation in Korea, Rep. Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	0.000000763	(0.000000843)
151319	Coconut (copra) oil or fraction simply …	0.000358027	0.000003463	0.000865259
151620	Vegetables fats and oil and their ...	0.000146698	0.000000496	0.000007242
230650	Coconut or copra oil-cake and other …	(0.000043752)	0.000095868	(0.000007820)
380210	Activated carbon	0.000090742	(0.000008570)	(0.000010962)
440200	Wood charcoal	(0.000047653)	0.000034305	0.000231907
530511	Coconut (coir) fibre raw	(0.000002668)	0.000000006	0.000000499
530519	Coconut (coir) fibre, processed not …	(0.000003597)	0.000000113	(0.000000050)

Source: WITS, processed.

Annex 26 – Result of CMSA Calculation in Srilanka Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
151319	Coconut (copra) oil or fraction simply …	0.000358027	(0.000001718)	0.000017420
151620	Vegetables fats and oil and their ...	0.000146698	(0.000007951)	(0.000006510)
151790	Edible preparations of fats and oil …	0.001632672	(0.000001762)	(0.000010600)
440200	Wood charcoal	(0.000047653)	0.000020669	(0.000030207)

Source: WITS, processed.

Annex 27 – Result of CMSA Calculation in Papua New Guinea Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
151319	Coconut (copra) oil or fraction simply …	0.000358027	(0.000000455)	(0.000000272)
151790	Edible preparations of fats and oil …	0.001632672	(0.000004852)	(0.000002823)

Source: WITS, processed.

Annex 28 – Result of CMSA Calculation in Solomon Islands Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
151620	Vegetables fats and oil and their ...	0.000146698	0.000000087	(0.000000191)

Source: WITS, processed.

Annex 29 – Result of CMSA Calculation in Pakistan Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	(0.000005722)	(0.000010226)
120300	Copra	(0.000077043)	0.000000087	(0.000000271)
151311	Coconut (copra) oil crude	0.000988547	(0.000009635)	(0.000010881)
230650	Coconut or copra oil-cake and other …	(0.000043752)	0.000005704	(0.000006404)
440200	Wood charcoal	(0.000047653)	0.000000265	(0.000000412)

Source: WITS, processed.

Annex 30 – Result of CMSA Calculation in Malaysia Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	(0.000006185)	0.000000941
120300	Copra	(0.000077043)	(0.000005987)	0.000005368
151311	Coconut (copra) oil crude	0.000988547	0.000019026	0.000533751
151319	Coconut (copra) oil or fraction simply …	0.000358027	(0.000026511)	0.000346976
151620	Vegetables fats and oil and their ...	0.000146698	(0.000203034)	0.000003604
151790	Edible preparations of fats and oil …	0.001632672	(0.000017863)	0.000052262
230650	Coconut or copra oil-cake and other …	(0.000043752)	(0.000004078)	(0.000000046)
380210	Activated carbon	0.000090742	(0.000003822)	(0.000002941)
440200	Wood charcoal	(0.000047653)	(0.000002825)	(0.000005359)
530519	Coconut (coir) fibre, processed not …	(0.000003597)	(0.000000062)	(0.000000005)

Source: WITS, processed.

Annex 31 – Result of CMSA Calculation in India Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	(0.000017277)	0.000001102
120300	Copra	(0.000077043)	(0.000001660)	(0.000000013)
151311	Coconut (copra) oil crude	0.000988547	0.000211837	(0.000206205)
151319	Coconut (copra) oil or fraction simply …	0.000358027	(0.000030010)	0.000004100
151620	Vegetables fats and oil and their ...	0.000146698	0.000015565	0.000083362
151790	Edible preparations of fats and oil …	0.001632672	(0.000000769)	0.000016506
151800	Animal or vegetable fats and oils …	0.000016230	(0.000002926)	0.000001210
230650	Coconut or copra oil-cake and other …	(0.000043752)	(0.000041634)	0.000004911
380210	Activated carbon	0.000090742	0.000001946	(0.000004174)

Source: WITS, processed.

Annex 32 – Result of CMSA Calculation in Vietnam Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	(0.000002849)	(0.000003781)
151311	Coconut (copra) oil crude	0.000988547	0.000026121	(0.000001662)
151319	Coconut (copra) oil or fraction simply …	0.000358027	(0.000100521)	(0.000001473)
151620	Vegetables fats and oil and their ...	0.000146698	0.000000762	(0.000003424)
151790	Edible preparations of fats and oil …	0.001632672	(0.000131472)	0.000018489
230650	Coconut or copra oil-cake and other …	(0.000043752)	0.000016517	0.000079557
380210	Activated carbon	0.000090742	(0.000000240)	0.000003998
440200	Wood charcoal	(0.000047653)	(0.000000220)	(0.000000749)
570220	Floor coverings of coconut fibres (coir)	(0.000000169)	0.000000909	(0.000000910)

Source: WITS, processed.

Annex 33 – Result of CMSA Calculation in Japan Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	(0.000000087)	(0.000001288)
120300	Copra	(0.000077043)	(0.000000001)	0.000000387
151319	Coconut (copra) oil or fraction simply …	0.000358027	(0.000002267)	(0.000005494)
151620	Vegetables fats and oil and their ...	0.000146698	(0.000000000)	0.000010512
151790	Edible preparations of fats and oil …	0.001632672	(0.000000082)	0.000001393
380210	Activated carbon	0.000090742	(0.000031817)	0.000030917
440200	Wood charcoal	(0.000047653)	(0.000035092)	(0.000060434)
530511	Coconut (coir) fibre raw	(0.000002668)	(0.000000024)	0.000000084
530519	Coconut (coir) fibre, processed not …	(0.000003597)	(0.000000021)	(0.000000004)

Source: WITS, processed.

Annex 34 – Result of CMSA Calculation in Argentina Market

HS Codes	Product Description	Commodity Composition Effect	Market Distribution Effect	Competitiveness Effect
080110	Coconuts, fresh or dried	0.000135394	0.000002270	0.000011008

Source: WITS, processed.