

MAJOR ISSUES AND CHALLENGES FOR IMPROVING THE MARKETING AND DISTRIBUTION OF AGRICULTURAL PRODUCTS¹

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INTRODUCTION

The world that we are facing today is characterized by rapid and fundamental change toward a new global economic change. Geopolitical change, which is not easily predictable as to its direction as well as its impact and the increasingly rapid development of science and technology are quickly driving the world economy into the era of globalization.

Over the past three decades, the economy of globality has grown enormously. The successes of GATT, APEC and other regional economic development, principally, produce agreement on opening the market all over the world. The significant action to achieve free trade is to reduce, step by step, tariff and non-tariff barriers that is believed to be the trade barrier in the past world trade. We have witnessed acceleration of international financial flows and massive growth of foreign direct investment, fuelled by the opening of world markets, all contributed to a significant expansion of the size of the global economy.

To compete in the international market, certain quality of products has to meet the requirements of the standardization systems, such as the series of ISO 9000. Therefore, production and marketing management quality should be improved to conform to international standards. World-class quality of products increases competitiveness and access to international markets. Accordingly, the agribusiness process should be market driven, in a sense that businessmen should produce *what the market wants rather than selling what they can produce*.

CURRENT STATUS OF GLOBAL MARKET : OPPORTUNITY AND CHALLENGE

Today the global market is characterized by free flow of resources. With regard to the markets there are two fundamental revolutions: i) world markets are opening up, and ii) information technology becomes pervasive.

Twenty years ago half of the nations were closed to market economies. Today, perhaps less than 10 countries can still be considered to be closed. The

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People Republic of China that recently became the WTO member will make world market more competitive. The opening of frontiers goes in parallel with harmonization of business rules worldwide through regional agreement and global agreement such as GATT. Similar opening of what used to be closed industry such as telecom, and privatization also mirrors this trend. The consequences of this fundamental trend are:

- There are more business opportunities than ever,
- There are more competitors than ever,
- Nations, enterprises and people alike are more vulnerable than ever.

Opportunity

The changing trends in global markets will affect agribusiness sector. As we are all aware, the basic role of agriculture remains important as a source of foodstuffs, supports agro-based industry, and as a source of employment especially in developing countries. In a more open economy, the external sector becomes more important and therefore international marketing of agriculture products is extremely important. Trading of agricultural products is likely to continue to expand in coming decades in response to rising populations and increasing food demand. A more open export markets in the future will provide market opportunities especially for the countries with production surplus.

According Pandey (1996) some of processed commodities such as sugar and oil, fruits and vegetables have a higher response to income changes than that of basic staples. Similarly, Food and Agricultural Organization (FAO) reveals that the processed products will dominate future demand of agricultural products. Traditional commodities such as tropical products showed negligible growth, cereals and sugar showed negative growth, and vegetable oils showed moderate growth. Table 1 shows the detail information.

Processed agricultural products do not only add the value but also relatively ease in trading since the processed product have less price fluctuations, easy to store, and last longer. In line with transparency in tariff policy, escalation tariff on processed product in international markets will be reduced in the future, increasing their market opportunities.

The above table reveals that in the world markets, processed foods indicated the most rapid growth. World markets for the traditional exports of ASEAN countries have been particularly weak. World exports of tropical products grew by only 1.7 percent per annum over the past decade. The growth rate of vegetable oils has been somewhat higher at 4.8 percent per annum. Meanwhile, world trade in higher valued products such as meats, fruits and vegetables, fish products, and other processed products has been far more dynamic. Growth rates for many products have exceeded 10 percent per annum over the past decade. This reflects the high growth rates of many emerging markets and high-income elasticity of demand for higher valued products, including processed foods.

Table 1. World Markets for Agricultural Commodities

Commodity	Market description	Growth rate (percent per annum)
Traditional		
- Tropical products*	Negligible growth	+ 1.7
of which rubber	Negligible growth	+ 0.4
- Cereals	Negative growth	- 0.5
- Sugar	Negative growth	- 1.5
- Vegetables oils*)	Moderate growth	+ 4.8
Non traditional		
- Fruits and vegetables*)	Rapid growth	+ 10.1
- Meats	Moderate growth	+ 6.6
- Fish product*)	Rapid growth	+ 10.8
- Beverages, tobacco, & processed foods*)	Rapid growth	+ 11.5

Source: FAO in Magiera (1995). With the exception of the items with asterisk, All growth is compounded over the years 1983 to 1993.

For items with asterisk, growth rates are compounded over the years 1983 to 1991

Although in the future international markets may be more in the form of processed products, demand for fresh food products remains high especially in the Japanese markets. Given this situation, developing a system of packaging that retains the quality of the products meeting with the taste and high standards required are absolutely necessary. Japan for instance, usually applies three domestic laws regarding imported foods. Food Safety Law basically covers the maximum content of edible chemical allowed such as additives or sweetener, and maximum content of pesticide residues allowed etc. Plant Protection Law applies sanitary and phytosanitary requirements, and Food Control Law requires that all imported foods must have such a label informing the nutrition content, complete addresses of the manufactures/producers and the local importer.

The European Union also applies stricter regulations on quality standards, sanitary and veterinary controls for importing fishery products. The European Union, which has just ratified its agricultural reform (*Common Agriculture Policy*) will open their market for *organic* and 'free pesticide' products. *Organic farming* will be more intensified in European Union. The impact needs to be anticipated are controlling on the usage of preservatives, hormones, antibiotics, and pesticides. Market opportunity for *organic foods* will rise in accordance with increasing demand for *natural foods*.

In Japan, demand for frozen vegetables and processed fish tend to increase. Demand for frozen vegetables has increased from 430,000 tons in 1993 to 700,000 tons in 1998. Most of vegetables demanded by Japanese market can be grown in many countries like egg plant, Chinese cabbage, okra, melon, cucumber, paprika etc.--an opportunity to increase export earnings. Similarly, import for

fresh and frozen fruits increase sharply in Japan. Fruit imports are mostly in frozen form due to strict requirements for quarantine and food safety law. Indonesian export share in Japan is still very low.

In 1992 Indonesia was the leading shrimp exporter to Japan with a market share of 21 percent. However, demand for frozen shrimp is projected to decrease in the next 3 years. According to *Sanwa Research Institute* (2000), frozen shrimp market is saturating, and demand for processed products such as *hot and spicy fish* tend to increase especially for youngsters. Again, market opportunity is widely open but in a different form, much different than it was 10 years ago.

How about United States? Fish import into USA is predicted to increase for the next 3 years. By value, US shrimp import was 4.38 percent in the last 5 years. Main supplier was Thailand with 34% share, while Indonesia's share was only 5%. Import bill of USA for shrimp was US \$ 3.1 billions in 1998. For tuna, USA is the second largest importer after Japan with annual import ranging between 240,000-250,000 tons. Indonesian tuna export was 14,000 tons in 1998. The leading supplier is Thailand followed by the Philippines.

Currently, USA tends to import more tropical products because of strong dollar relative to Asian currencies. Indonesia for instance, is the second largest exporter of cocoa beans to the USA after Ivory Coast. The problem with the USA market is that it tends to impose more strict requirements than that of international standard such as *Codex Alimentarius*- a condition legalized by the *World Trade Organization* (WTO). Many Indonesian export products are still subject to *detention* imposed by the USA such as shrimp, tuna, fish fillet, cocoa beans, mushroom and can pineapple.

The Uruguay Round Agreement will open products markets in the developed countries applying high protection for their agriculture practices facilitated by the "*minimum access*" that should be applied. This will be another challenge for developing countries to enhance their share in the global market of agricultural products. However, other constraints may arise especially in the form of disguise export subsidies and domestic supports which so far have been heavily practiced by some countries (developed countries the most).

ASEAN countries have not traditionally exported high valued food commodities, but Thailand has become a successful exporter processed fruits, vegetables and fish product. It also exports poultry products and leads in the export of fresh tropical fruits.

To accommodate this opportunity, a strong and effective food processing and other agro-based industries sectors are considered to be important for diversification and commercialization of agriculture, improving rural income and employment, value addition and generation of surplus for export, reducing waste of perishable products, as well as foster rural industrialization. The government should provide massive thrusts and act as a catalyst for getting investments into agribusiness including food processing sector, encouraging export and creating a

general atmosphere for a healthy growth of the food processing and agro-based industry. Private initiative should be continuously encouraged to undertake this role which the government plays as a facilitator, motivator and regulator for investment and growth.

Challenges

Although global market offers business opportunity, various foreign trade regulations are still imposed variously among the countries. In addition to the international treaties and agreements governing international trade such as WTO, general regulations are applied dealing with customs, tariffs, banking or foreign trade control, unjustified competition, anti dumping and anti trust. For agricultural products, additional regulations are usually applied such as laws on food sanitation, sanitary-phytosanitary, and food control. Some countries also apply CITES, well known as Washington Agreement i.e. Convention on International Trade in Endangered Species of Wild Fauna and Flora. For fishery products in the United States, imported commodities should also honor the Marine Mammals Protection Act, Dolphin Safe treatments, and Environmental Protection Law.

Guarantee on product quality is not only based on final products but also on the whole process of production. ISO standards, FAO/WHO Codex Alimentarius standards, and Hazard Analysis Critical Control Point (HACCP) are the common requirements in the current global trade signaling the era of quality revolution.

Japan requires imported agricultural products meet with the Japan Agricultural Standards (JAS) applying to beverages, processed foods, forest products, agricultural commodities, livestock products, oils and fats, products of fishing industry, and processed goods made from agricultural, forestry, and fishing raw materials. European Union requires specific containers to carry food products. The US market applies HACCP treatment for imported foodstuffs. This requirement is regulated within the Uruguay Round on Technical Barrier to Trade and Sanitary and Phytosanitary Agreement, so that integrated quality improvement pattern is absolutely required to compete in the international markets.

As discussed before, agribusiness development has a very promising prospect in the future. However, competition will also be more severe to share the existing business opportunity (Table 2). To compete with other countries, our export commodities must have good competitive advantages. So far, commodities with comparative and competitive advantages are produced from the activities characterized by the combination of resource base and low-wage labor rather than that of technological base or capital base.

Characteristics of the market might also shift toward *buyers market*, and therefore, consumer bargaining power becomes stronger. In this situation, efficiency and competitive advantages appear to be more important. Business

Table 2. Market Situation for Some Commodities

Commodity	Main market	Market share of Indonesia	Main competitors	Potential competitors
Estate crops				
Rubber	EU, USA, Asia	High	Thailand, Malaysia	Vietnam
Crude palm oil, palm kernel oil	EU, Asia, USA, Japan	High	Malaysia	Africa
Coffee	EU, Japan, USA, Canada	High	Brazil	Vietnam
Cocoa beans	EU, USA	High	Ivory Coast, Ghana	Nigeria, Cameroon
Coconut oil	EU	Fair	Philippine	--
Tea	UK, Pakistan	High	China, Kenya, India	Srilanka
Pepper	EU, AS, Asia	High	Brazil, India	Vietnam
Fisheries				
Shrimp	Japan, USA, EU	High	Thailand, China	Philippine
Tuna	Japan, USA, EU	High	Thailand	--
Craps	EU, Asia	Fair		-----
Frog	EU, Asia	Fair		---
Sea weed	USA, Japan	Low		-----
Pearl	Japan	Low		---
Food&Horticultur				
Banana	USA, Japan, EU, Canada	Low	Costa Rica, Philippine	Malaysia
Pineapple	Japan, USA, Singapore	Low	Philippine, Costa Rica	
Mangostean	Asia, EU, Mid East	Low	Thailand, Srilanka	Thailand, Srilanka, Australia?
Pellet	EU, Asia	Low	Thailand	
Mushroom	Asia	Low	China	-----
Potato	Singapore, Malaysia	Fair	Thailand, China	-----
Cabbage	Singapore, Malaysia	Fair	China	-----
Corn	Asia, Local	Low	Thailand, US	Vietnam
Livestock				
Pig	Singapore, Hongkong	Low	China	
Poultry	Hongkong, Japan, Rusia	Low		
Sheep	Malaysia, Mid East	Low		

competition spreads to various aspects, and every enterprise tries to win business competition. Up to 1970's, enterprises generally adopted four marketing mix i.e four P'S : price, place, product, and promotion to gain advantages. Commencing in 1980's an additional P, 'that is power' was introduced, which was actually related to monopoly power, or "brand name", or "identity and image", owned by the enterprises.

Since 1990's, the five P-formula became irrelevant and insufficient, as the enterprises have to use four-R formula i.e Right Product (R.1), Right Place (R-2), Right Price (R-3) and Right Time (R-4) to dominate the international market. It is noted that R-4 is the most difficult to implement, because the right time here is from the point of view of consumers and is not that of producers. Right Time (R-4) also implies a dynamic element of agribusiness, which includes continuity of production.

The element of Right Product (R-1) implies that product characteristics must conform to consumer preferences. Well-educated consumers will put emphasize on the importance of nutritional value and hygiene. The element of Right Place (R-2) means that we have to identify the right market segment to which our product has greater chance to be accepted. For example, young professional in urban areas is a potential market segment for fresh fruit and vegetables, which can be penetrated through supermarket chain. The Right Price (R-3) involves pricing strategy, and usually price leader is a common strategy to penetrate the market.

For Asia Pacific products to compete in international market, it has to respond to the future challenges:

- a. **Superior quality.** This is the most difficult to fulfill. Many countries now impose Sanitary and Phytosanitary Measures. Japan enacts 3 measures for its agricultural imports: Japan Agriculture Standard (JAS), Food Safety Law (FSL), and Plant Protection Law (PPL). United States imposes Hazard Analysis Critical Control Point (HACCP), Australia applies similar standard.
- b. **Anticipation of market trends.** Consumer preferences change dynamically. A more environment friendly and processed products will dominate market in the future.
- c. **Superior market distribution.** Exporters must develop market distribution abroad by establishing cooperation with foreign company. Efficient distribution system will ensure on time delivery from producers to customers. Farmer groups can build their own distribution system with the support from government, or do contract with processors. The agribusiness terminal that is introduced in Indonesia can facilitate farmers in distribution.
- d. **Product Development.** The product life cycle tends to be shorter. When the product reach saturation point, new product must be developed to meet consumer satisfaction and maintain market share.

- e. **Promotion.** This is an important element commonly neglected by our entrepreneurs. The Kiwi story is a good example of the importance of promotion.
- f. **Continuity of Supply.** Maintaining a continue supply is crucial in order to provide goodwill to the customers.
- g. **Market Research and Market Information System.** Market research and information is essential to analyze consumer preferences and competitors. Market information is necessary to penetrate market. With the advance of information technology, enterprises can easily develop an on-line marketing information system. Ministry of Agriculture has developed an on-line market information system to assist agribusiness in marketing. The site can be accessed through <http://www.fintrac.com/indoag/>

To answer the future challenges, countries must show positive responses to increase competitiveness by improving productivity, efficiency and produce world-class quality products, with continuous supply. In the era of globalization, consumer preferences will determine what to produce. This means that we have to concentrate our attention on all sub-systems of agribusiness.

A series of improvement programs to produce superior products with good marketing prospect, meet market standard, and continuously supplied at a competitive price. This requires a long period of adjustments. By next year, Southeast Asian countries have to face AFTA. Thereafter, in 2005, developing countries have to have self-adjustment to be in the framework of WTO, and in 2020 to that of APEC. So, within less than two year, we have to finalize the programs on increasing the competitiveness of our country (macro) and the competitiveness of our business (micro).

MAJOR ISSUES IN AGRICULTURAL MARKETING

As discussed previously, a more open international market offer greater opportunity and challenges. Agricultural marketing relates to export and domestic markets. However, efforts to penetrate export markets are much more difficult compare with domestic markets and therefore the following discussion will focus on export markets. Exporters, especially in developing countries are still facing some external and internal problems. Below is the list of problems facing by domestic exporters:

a. International Trade Barriers

Extremely strict import regulations imposed by some developed countries pose difficulty to enter the market. This form of new protectionism which is legalized by the GATT/WTO is implemented through HACCP or sanitary and phytosanitary measures. Bilateral approach is needed to resolve the problem. Not many companies really understand regulations imposed in WTO, so that government must conduct training for these companies.

- b. Macro policy: credit availability, high interest rate, and fluctuating exchange rate

Since the deep crisis hit many Asian countries, credit became scarce combining with high interest rate. Many opportunities could not be realized because of lacking of working capital particularly faced by small enterprises. Developing financial institution for SMEs would alleviate the problem. This problem is exaggerated by fluctuating exchange rate, making exporters difficult to plan.

- c. Trade Policy: export tax, import tax for raw materials

Some Indonesian competitive products are still confronted by export tax. Crude Palm Oil (CPO), rattan, and log for example are subject to export tax, which lower profit received by farmers. Export tax must be ended. On the other hand import tariff for some input required by farmers and for food processing are still applied.

- d. Red Tapes Practices

In some countries, Illegal retribution fees are still charged by government officials (*Retribusi Pungutan Hasil Pertanian* – in Indonesian case).

- e. High Transport Costs

Shipping cost using domestic company for export is much higher compared with that abroad (for example Taiwanese ship is cheaper). Domestic shipping companies sometimes practices hidden surcharges

- f. Raw Materials with Good Quality and Continue Supply

Lack of knowledge and seasonally is a critical factor here. Asia Pacific agriculture, except USA is characterized by small scale. It is difficult to maintain a homogenous quality. Partnership between exporters and farmers should be encouraged to overcome the problem. Unlike other industries, agroprocessing depends on a regular supply of high quality raw materials.

- g. Lack of Supporting Facility

Among the most important is cooling storage the shipping ports, and irrigation in the farm fields. The idea of developing agribusiness terminals in production centers could also help overcoming the export and domestic problems. Agribusiness terminal is also function as a distribution network.

- h. Insufficient Distribution System

Distribution system is very crucial in connecting farm produce to customer centers. Poor distribution system is common in almost all developing countries. The idea of building wholesale markets in large cities, and terminals in production areas will facilitate distribution, reduce post harvest loss, and improve bargaining position of farmers. Government may provide subsidy to initiate the idea.

- i. Lack of Professional Managers

To penetrate international market exporting company would need professional managers. A rigorous knowledge of international market, regulation,

competitors, harvest time, communication, and strategic alliances abroad and with farmers is really needed to make agribusiness more competitive.

SOME MEASURES TO IMPROVE MARKETING AND DISTRIBUTION

The comparative advantage theory holds that a country will gain most by exporting commodities that it produces using its abundant factors of production most intensively. Factors of production include land, other natural resources, labor, and capital. Many developing countries like Indonesia are rich of natural resources and labor with low wage level. Yet, they could not compete in international market. Other countries like Japan, Korea, Germany, and Switzerland with poor natural resources and expensive labor wage could compete in international market and experience much higher economic growth than those with rich natural resources. It does not imply however that comparative advantage is useless. Abundance natural resources and labor is important in international trade but not *sufficient*, It is a *necessary condition*. The comparative advantage could not explain competitiveness of a country.

The foregoing discussion reveals that comparative advantage based on supply side is insufficient to compete in international market. The competitive advantage refers to *ability of a country/company to maintain and increase its market share sustainable through utilization of its comparative advantage* (Porter, 1985; Martin *et al.* 1991; Tweeten, 1992). A more operational definition of competitive advantage is the ability to supply goods and services at time, place, and form determined by customers, in domestic and international market, at the same or better price than those offered by competitors to have profit at least as opportunity cost of resources (Cook and Bredahl, 1991).

The above definition implies three fundamental points to increase competitiveness: Firstly, the ability to produce a commodity cheaper than competitor (comparative advantage) is not sufficient to compete in international market. Secondly, the ability to produce product that conforms to consumer preferences will determine competitiveness in international market. Thirdly, competitiveness is determined by the ability to utilize comparative advantage (from up-stream industry to down-stream industry) in producing a product to meet consumer preferences. This most recent definition of competitive advantage is consistent with market driven paradigm. The concept of competitiveness can be used to improve marketing and distribution of agricultural products. Below are some suggested measures.

Market Intelligence

Agribusinesses often lack information on which to base sound investment and pricing decisions. The Government should identify appropriate information that should be made available to businesses either as a public service or on a fee-for-service basis. Some examples are:

- Some agroprocessors lack **strategic information on international market conditions and prices**. This makes it more difficult for them to negotiate favorable prices with international brokers. Data banks on overseas prices for some commodities are now available through international reporting services. The Government should review these data banks and determine whether it would be worthwhile to make this information available to agribusiness on a fee-for-service basis.
- Few, if any, agribusinesses seem to know the **implications of the Uruguay Round** for their commodities. Yet, the Uruguay Round could have a major impact on future market trends, and a list of all Uruguay Round country commitments is now available. Government officials need to learn how to interpret these commitments. The information should then be summarized and disseminated to the public.
- The Government needs to review current mechanism for relaying information on **product standards** to processors. Agroprocessors generally rely on their buyers or joint venture partners for information on the processing techniques needed to meet standards in export markets. However, this information is generally not available for alternative markets, and changes in standards are sometimes relayed to processors after production runs are already in progress. This can lead to large losses.
- **Tariff schedules** for most of export markets are apparently available on CD-room. The Government could review this information and examine the feasibility of making this data available to the public on a fee-for-service basis.
- Many **non-tariff barriers** (NTBs) remain on commodities of export interest to many developing countries (e.g. canned pineapples in Japan, canned tuna and mushrooms in the European Union, automatic detention for some products in the USA). A full list of these barriers should be compiled and made available to senior Government officials. All NTBs should be reviewed for their legality under the GATT. When found to be of questionable legality, the Government should vigorously pursue GATT mechanisms to have them removed.

Infrastructure

The Government should conduct a comprehensive review of planned investment in ports and other infrastructure such as farm roads, agribusiness terminals, with a view towards expanding investment considerably. ***Improved infrastructure could be the single most important factor leading to improved exports of agroindustrial products.*** In practice, publicly provided infrastructure services have often delivered poor quality and inadequate coverage. Government should increase private sector provision through regulatory reform to increase productivity. However, some companies report transportation costs that were as

much as one-third higher from Indonesia than from Thailand. In a few cases, this may be the most important factor influencing a company's competitiveness vis-a-vis Thailand. The high cost of shipping also affects the cost of raw materials and packaging (corn in the case of poultry, cans in the case of processed foods.).

Strengthen Marketing Institution Capacity

The quality of marketing institution becomes increasingly important as the focus of agricultural development shifts away from low-value to higher value export crops and perishable commodities. Marketing cooperatives and commodity associations need continuous improvement in marketing.

Improve Productivity

To gain marketing efficiency, policy must be designed to improve efficiency at all subsystems of agribusiness: farming practices, processing, market structure, product development, promotion, extension, and access to technology. There are ample opportunities that can be done here. Market reform to induce competition, promotion to connect markets, information transparency will increase productivity and reduce marketing costs.

Human Resource Development

Considering that there is limited number of big enterprises involving in agribusiness, the government should encourage the partnership program between big companies with farmers applying nucleus-plasma mechanism. Basically, nucleus are to provide working capital and other production inputs, agroprocessing and marketing, while the plasma conducts production process based on the agreement of both parties on quality, quantity and other treatments. The nucleus also provides extension and necessary education to the plasmas. To ensure that the plasmas will gain fair treatment, especially for marketing of their products, the agreement is legalized in a binding contract.

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