

## **Enhancing the Competitiveness of Thai Fruit Exports: an Empirical Study in China**

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### **ABSTRACT**

While Thailand is recognized as a country that produces a variety of unique and great-tasting fruits, it has not been very successful in penetrating overseas markets. This suggests there is still much room for increasing the value of the country's fruit exports. Up to now, export markets are regarded as alternative sources of sales during times of oversupply in the domestic market. This approach ends up creating problems related to product quality, low bargaining power and poor brand recognition. These factors have hindered the ability of Thailand's fruit growers to achieve high market shares when compared with their competitors elsewhere in the region. To date many organizations, both public and private, are aware of the situation and have attempted to enhance Thailand's competitive position as a fruit exporting country. The National Research Council (NRC) of Thailand has initiated an integrated research program that aims to strengthen the competitiveness of Thai fruit exports. This article presents the key findings of a study which focused on the Chinese market.

Keywords: Competitiveness, Fruit Exports, Branding, China

## INTROUDUCTION

A nation's long term prosperity depends on its competitiveness, which is largely determined by the productivity with which a nation uses its human, capital, and natural resources to produce goods and services (Porter, 1990). The goal is to develop the ability to sustain an acceptable growth rate and real standard of living (Landau, 1992). Sound macroeconomic conditions are necessary but not sufficient conditions to ensure a prosperous economy. Competitiveness is rooted in a nation's microeconomic fundamentals, including the sophistication of a company's operations and strategies, as well as the quality of the microeconomic business environment in which companies competes. An understanding of the microeconomic foundations of competitiveness is critical to national economic policy (Porter, 1990).

Improving Thailand's economic competitiveness in key industry sectors by addressing the critical issues that exist in many segments of the economy is a key priority of the Royal Thai Government. The Thai fruit industry has been acknowledged as having high potential in export markets because it produces numerous varieties of unique and great-tasting fruits.

Although world fruit production has been relatively steady over the past few years, the global market for fruit exports has been growing much more rapidly. The EU remains the largest fruit import market in the world. However, by expanding at an average rate of 20% per the year China is now one of the world's most attractive fruit import markets (Access Asia, 2004). Demand for fresh fruit is driven by several factors, such as a) the trend in favor of a healthier lifestyle; b) the development of technology that facilitates the fresh fruit trade; and c) consumers' willingness to pay higher prices for exotic and out-of-season fruit (Pollack, 2001). Nevertheless, in the past the growth rates for Thailand's fruit exports have been insignificant, partly due to the conventional export concept that treats export markets as alternate sources of product push in times of over-supply. Hence, to enhance the competitiveness of Thai fruit exports in world markets drastic change needs to take place in terms of moving away from conventional export concept towards a more market-oriented strategy. Also, there needs to be a commitment to reform production processes throughout the supply chain along with a continuous investment in research and development.

Thus, to improve the competitiveness of the country's fruit export sector, the National Research Council (NRC) of Thailand has initiated an integrated research program that emphasizes the importance of marketing and branding. Productivity

depends both on the value of products (e.g. uniqueness, quality), as well as the efficiency with which they are produced (Porter, 1980). Therefore, a focus on branding would add value to Thailand's fresh fruit exports that at present are regarded primarily as commodity products. However, to make this marketing effort effective, Thailand must be able to supply quality fruit products that satisfy market demand in a cost-effective manner, while at the same time demonstrate the ability to develop new and innovative products.

The objectives of this study are: a) to gain insights into the country's fruit export sector with a focus on the Chinese market; b) to identify critical issues and make specific recommendations for developing competitiveness of the industry; and c) to develop brands for Thai fruits in order to capitalize on their potential value over the long term.

### RESEARCH FRAMEWORK

Enhancing value under the branding concept is not new. It has been successfully applied to a variety of commodity products, for example, the Zespri brand for kiwi fruit from New Zealand and the Amul brand of dairy products from India. In both of these cases the brand concept was achieved owing to close cooperation between all the stakeholders in the industry, typically with strong support from the government coupled with the relentless drive from the private sector. In fact, the central issue in agribusiness is the integration of the supply chain. However, most research deals with specific 'slices' of the problem and no one supplies a complete picture to the multifaceted and complex nature of agribusiness (Wilk and Fensterseifer, 2003).

Hence, this study adopted an integrated research framework which was developed to tackle this complex issue. The framework includes four major components: a) Branding and Marketing; b) Product Development and Intellectual Property (IP) Protection; c) Logistics and Distribution; and d) Strategic Partnership (see Figure 1). A summary of the key objectives of each work stream within the integrated program is presented below:

- **Marketing and Branding:** carries out consumer research and analysis as well as formulate a marketing plan to support the export and sale of fruit in the intended destination countries. This includes the application of a branding strategy to differentiate the products from those produced by competitors.
- **IP/Product Development:** covers research and development to explore the potential to upgrade or enhance the quality of existing fruit varieties. It may extend to the development of new fruit species to cater to the latest consumer

trends. Here the scope may also cover the acquisition of the intellectual property protection rights for any new product innovation arising from this study. This component is also related to the way technology can be applied to improve products to suit customer tastes.

- **Logistics and Distribution:** examines the logistics environment within the fruit export sector, focusing specifically on the inefficiencies that may affect the international competitiveness of several key fruits produced by the country's numerous growers for export. The aim is to ensure the delivery of quality and safe supplies of fruit from farms to retailers by improving the supply chain and quality assurance system (Aked, 2002; Trienekens and Willems, 2002).
- **Strategic Partnership:** leverages a network of alliances to promote strong coordination and business relationships between all the stakeholders; from growers, exporters, freight providers to importers. A strategic partnership among industry players must be established to drive the key initiatives forward for long-term success (Ellram, 1995; Cooper, 1997; Thompson, 2001).

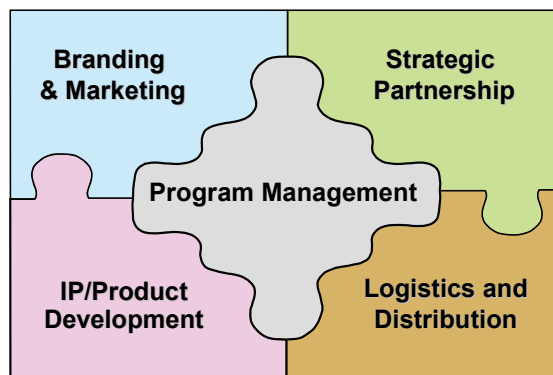


Figure 1 Integrated Research Framework for this Study

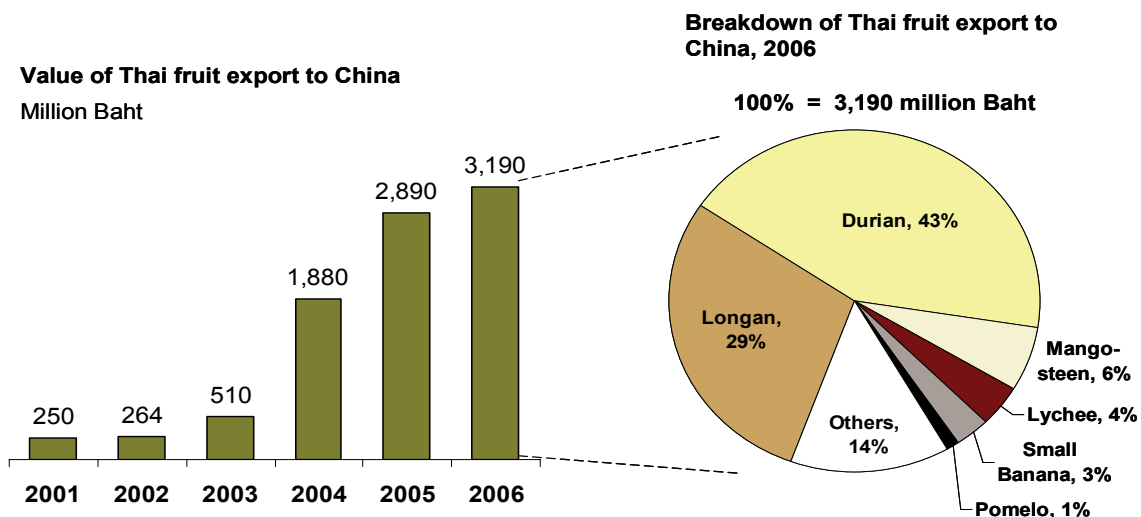
This paper presents the findings of the Branding and Marketing work stream of the NRC's program. This market-driven approach is aimed at identifying the market's specific demand characteristics, while at the same time laying the foundation for brand development (Said, 2001; Morgane, Labaste, and Voisard, 2003).

### RESEARCH SCOPE

A variety of fruits were selected for their high export potential, including longan, durian, mangosteen, mango, pomelo, small pineapple, small bananas, and papaya. Our

research indicated that exports of longan, durian and mangosteen have growth potential due to their strong competitive positioning in destination markets. Longan and durian account for more than 50% of Thailand's total fruit exports in terms of value. The other six fruits examined in this study together account for less than 15% of total exports. Despite the favorable international perception of Thai fruits none of the eight varieties included in this study showed export performance in recent years.

It was also decided that this study would focus on the market for fruit imports in China due to its attractive growth (Wong, 1997; Shields, 2001; Huang, 2002) and the highly favorable export conditions created by the China-Thailand Free Trade Agreement (FTA). Following the signing of the China-Thailand FTA in October 2003 the value of Thailand's fruit exports to China more than tripled due mainly to strong exports of durian and longan (see Figure 2). In terms of export volume and market share, China is currently the largest market for Thailand's fruit exports. Likewise, Thailand is the largest import market for China's fruit exports. The target locations in China for this study were Shanghai and Guangzhou, which are the two most attractive markets for Thai fruit exports.



Source: Thai customs department

Figure 2 Value of Thailand's Fruit Export to China (2001-2006)

## METHODOLOGY

This research project was conducted in cooperation with residents of the target

destinations. Moreover, the research activities were broad-ranging in nature, involving both qualitative and quantitative research. The specific research objectives were:

- To identify Chinese consumers' attitudes and perceptions towards fruits in general and the needs that are not yet met by competitive fruits
- To identify consumers' attitudes and expectations towards imported fruits, especially the selected fruits from Thailand
- To assess the acceptability of Thailand's fruits among Chinese consumers; including their motivations, barriers and optimisations
- To evaluate the substitutability of Thailand's fruits

The sample size for this research was based on the proportion sampling technique with a 90% confidence level and a 5% error allowance. Respondents were randomly selected and interviewed using a structured questionnaire. This phase of the research was conducted in Shanghai and Guangzhou, with 295 and 286 respondents being interviewed in the two cities respectively. Analytical tools such as Optimal Scaling and Multi-Dimensional Scaling (e.g. Squared Euclidean Distance) were employed in the positioning analysis.

A qualitative approach using mini-focus groups of 5-6 respondents was adopted. Unlike standard groups of 8-10 people, mini-focus groups offer more intimacy and 'air time' to each respondent. These advantages are vital for understanding consumers' needs and taste preferences. A total of sixteen mini-focus groups were interviewed.

In addition, sensory research was carried out to identify consumer preferences regarding selected fruit types. Sensory research was used in order to confirm and refine customers' product preferences in terms of product attributes such as taste, texture, etc. The fruit attributes drawn from this sensory research will guide fruits researchers in product development.

## **KEY FINDINGS**

Each Thai fruit in the Chinese market is in different stage of market development (see Figure 3). Hence, the strategy for each fruit was developed based on its market situation and the "strength" of the fruit. The stage of market development for each fruit was taken into consideration in order to identify the key customer segments, product attributes and preferences. In addition, the distribution channels in terms of their structural design and trade purchase attributes were analyzed. For example, in Shanghai it was found that Thai durian and mangosteen are already considered as defensive products

in this emerging market. Thus, qualitative research was used to support a build-up strategy for the market. By contrast, Thai pomelo is regarded as a challenger in the growing market for pomelo since this type of fruit is already widely-consumed. Hence, quantitative research was applied to identify the consumer segment that would be attracted to a differentiated segmenting strategy.

Our overall assessment indicates that despite its size and rapid growth, the Chinese market for fresh fruit imports is highly competitive owing to abundant local production and the continuous improvement in the quality of the fruit offered to consumers. The window of opportunity for Thai fruit exports depends largely on the seasonality of domestic fruit production. For example, although longans and mangoes show high potential, the Chinese markets for both fruits are very competitive due to large domestic production and strong imported product. In fact, China is the largest producer of longan. Its longan production has also increased rapidly during the last few years. As a result, Thai longan has become less competitive as consumers can get fresher longans at lower prices. Nevertheless, the findings from study illustrates that a number of Thai fruits, including durian, mangosteen, monkey bananas (or “small bananas”) and pomelo, have significant export potential in China.

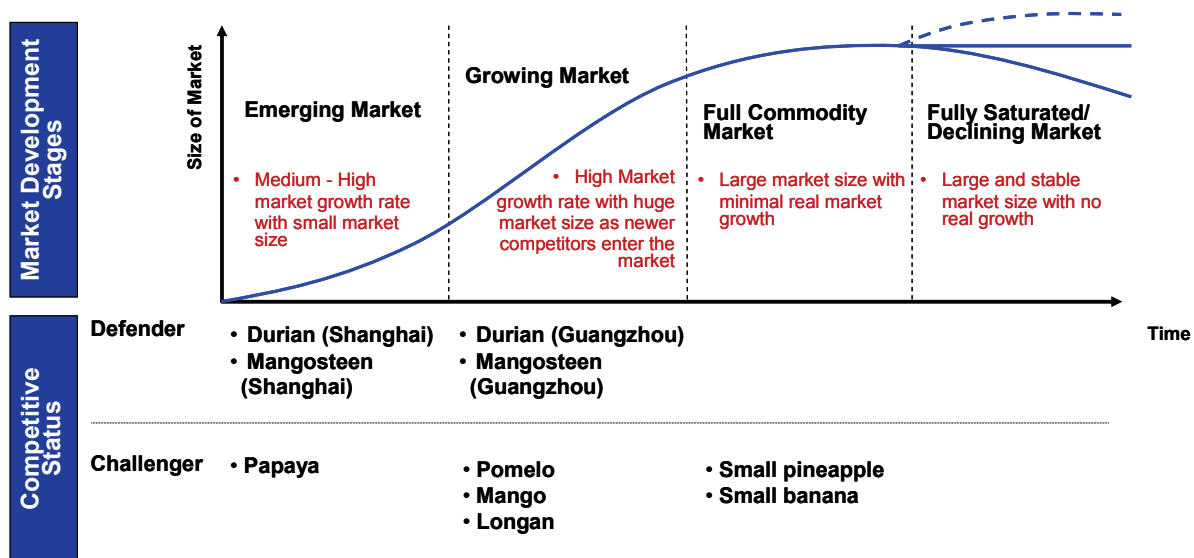


Figure 3 Market Development Stages for Selected Thai Fruits in the Chinese market

Durian and mangosteen are Thailand’s flagship fruits and exports of both are already quite substantial in value terms. Thai durian is already well-accepted by both men and

women in Guangzhou as 54% of those surveyed said they had consumed durian in the past 12 months. However, male consumers in Shanghai showed less apprehension about the heat and odor of the fruit than their female counterparts which leads to low consumption - only 21 percent of the people surveyed said they had consumed durian during the past 12 months. In the case of mangosteen young female consumers in Shanghai are attracted to this fruit’s superior taste and nutritional value. Nonetheless, the quality of the mangosteen imported from Thailand is a chief concern as many consumers have experienced spoilage problems in the past. As both durian and mangosteen are relatively new to the Shanghai market more effort needs to be made to familiarize consumers with the eating methods for and nutritional value of these types of fruit. It is important to note that the proportion of people that rejected durian and mangosteen decreased significantly after the first trial (see Figure 4).

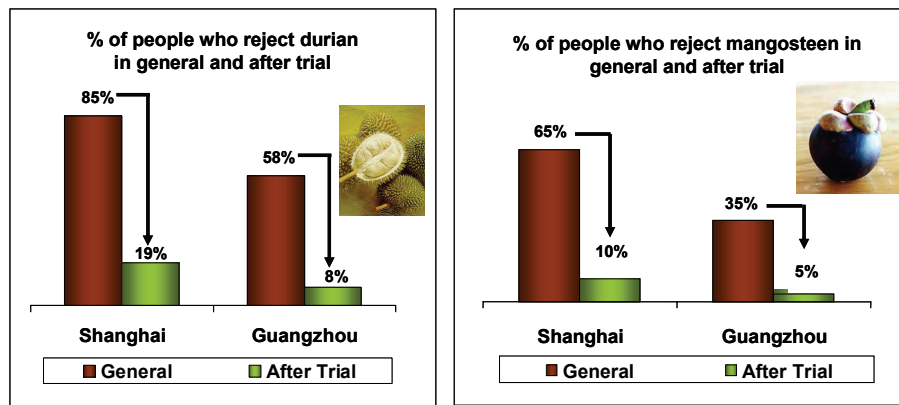


Figure 4 Percentage of People who Rejected Durian and Mangosteen after the First Trial

Monkey bananas (or “small bananas”) have strong growth potential despite their modest level of current export volume. Consumers in China rate Thai monkey bananas as being superior in terms of taste, aroma, appearance and size when compared with bananas raised domestically and even those imported from other countries (see Figure 5). To capitalize on the superior attributes of Thailand’s monkey bananas it is highly recommended that an intensified marketing strategy that makes use of market segmentation techniques and branding be launched.



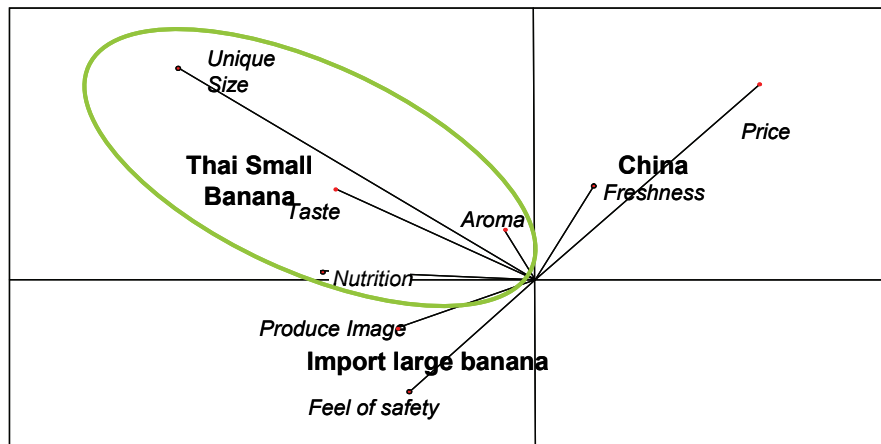
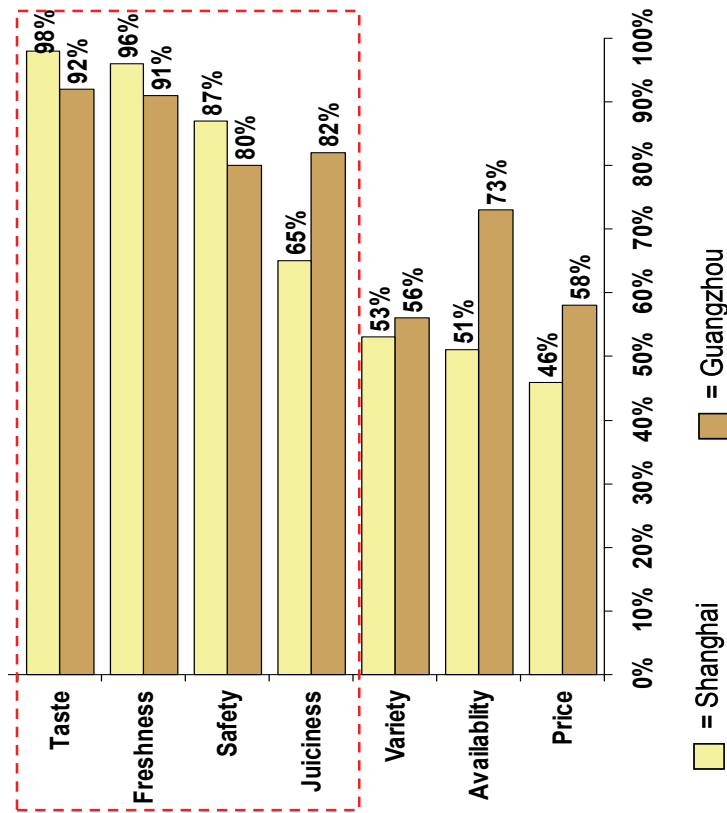


Figure 5 Perceptual Map (Multidimensional Scaling Analysis) of Thai Small Bananas vs. Chinese Bananas and other Imported Large Bananas

Meanwhile, the research findings with respect to Thai pomelo were quite different. Even though Thai pomelo scored highly with Chinese consumers (see Figure 6), its market share is still rather low. Local producers dominate the market with a market share of more than 90%. This suggests that the high prices for Thai pomelo (at 5-10x the price of local pomelo) and the low awareness amongst Chinese consumers are holding back Thai exports of this particular fruit. Thus, Thai pomelo needs to be differentiated from rival sources of supply by emphasizing its superior taste, reducing logistics costs and penetrating more distribution channels in an aggressive manner.

From our analysis of distribution channels in China, Guangzhou remains as the primary gateway for imports of Thai fresh fruits. Besides longan and pomelo, almost all of Shanghai's durian and mangosteen are currently trans-shipped from Guangzhou after clearing customs inspections via Hong Kong and Shenzhen. Modern trade retailers such as hypermarkets and supermarkets are the preferred channels for consumers who purchase Thai fruits. Most importers use the consignment model that translates into high price volatility and poor visibility with the end consumer. In addition, this model is highly fragmented since it involves numerous stages of distribution that includes importers, first-tier wholesalers and second-tier wholesalers. The result is higher transaction costs and a lack of consistent product quality for both retailers and consumers.

### Importance of consumption attributes in Shanghai and Guangzhou



Note: The length of the straight lines represent differences of the variables (e.g. the longer the line, the bigger the differences of such variable between countries.)  
 The distance of the country of origin to a line reads how close the country of origin is associated with that variable

### Thai Pomelo's position in Shanghai and Guangzhou

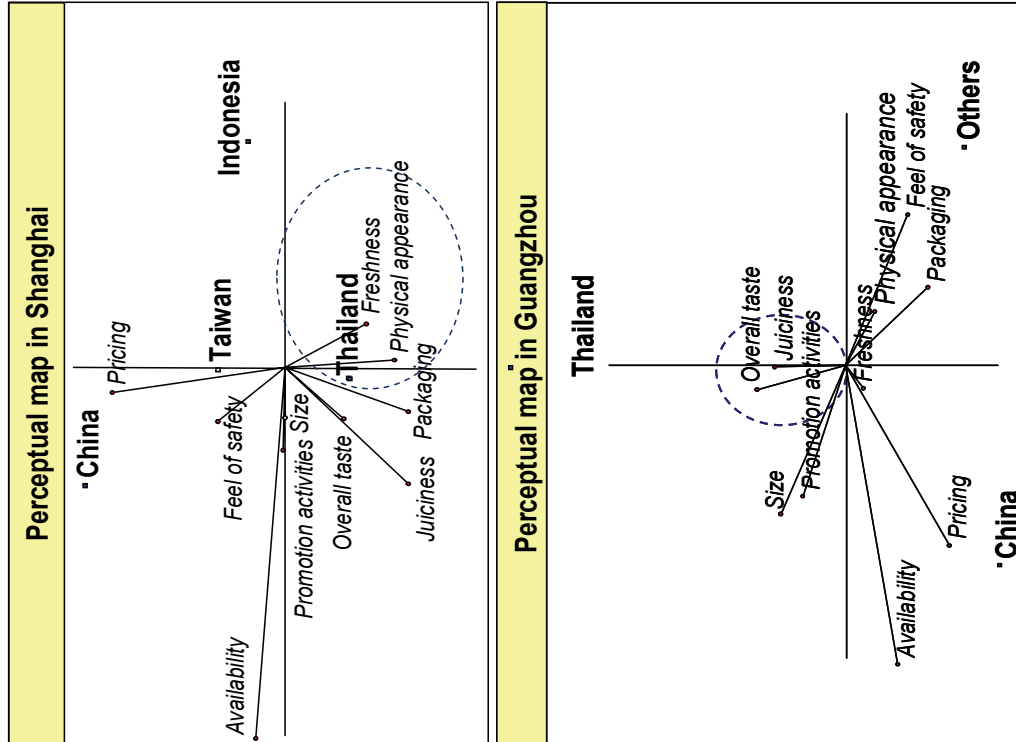


Figure 6 Pomelo's Consumption Attributes in Shanghai and Guangzhou and Position Analysis of Thai Pomelo

In order to overcome the existing inefficiencies in the supply chain it may be worthwhile to set up a direct distribution channel between Thai fruit exporters and retailers based in Guangzhou. The benefits of this approach would include lower importer/wholesaler mark-ups, improved visibility and consistent product quality while at the same time minimizing the number of stages of distribution before the fruit reaches retailers and consumers. From the perspective of exporters such a system would increase the pricing mechanism's transparency and improve the visibility of end-user demand. However, this model has to be further explored by the stakeholders from both countries before being considered seriously.

The alternative channel that we have identified is for Thai exporters to ship directly to Shanghai retailers and clear customs inspections in Shanghai. Although Shanghai retailers would benefit enormously from this channel, their existing import volumes cannot justify the logistical economies of scale. However, through the future development of Shanghai as a distribution hub that alternative direct channel to Shanghai may prove feasible.

### **IMPLEMENTATION ISSUES**

To create a greater awareness of Thai fruits in general and to communicate more specific information on the characteristics of Thai fruits a branding strategy needs to be developed. A Thai fruit brand needs to be built around three key components: a) Thailand's core values; b) the competitive position of Thai fruits; and c) global consumer trends. The development of a brand for Thai fruits that emphasizes their uniqueness would help the country's fruit exports penetrate world markets. At the strategic level, this brand should be aligned with market promotional activities in order to deliver a unified message to consumers about the quality of Thai fruits. Finally, for exporters the creation of such a brand would help them expand into new markets and allow them to penetrate direct retailing channels where brand image is a key consideration. Figure 7 presents the key concepts of branding implementation.

In order to align the objectives related to marketing, branding, logistics and demand chain improvements, we recommend that a Thai Fruit Trade Board be established. Such a trade board should be comprised of key related stakeholders, i.e. the Fruit Exporter Association, the Fruit Grower Association, the Ministry of Commerce and the Ministry of Agriculture – all managed by a professional team. The creation of such a board would

have a much better prospect of pushing forward the initiatives recommended in this research. As these issues are complex and interrelated, efforts to increase the competitiveness of Thailand's fruit industry cannot be achieved by any single organization. Such a trade board also needs to be given a clear mandate so that it can better focus on and react to changing market conditions. Finally, such an organization needs to be self-sufficient with a long-term focus on marketing and branding Thailand's fruit exports, as well as emphasizing R&D and generating sustainable revenue for the industry.

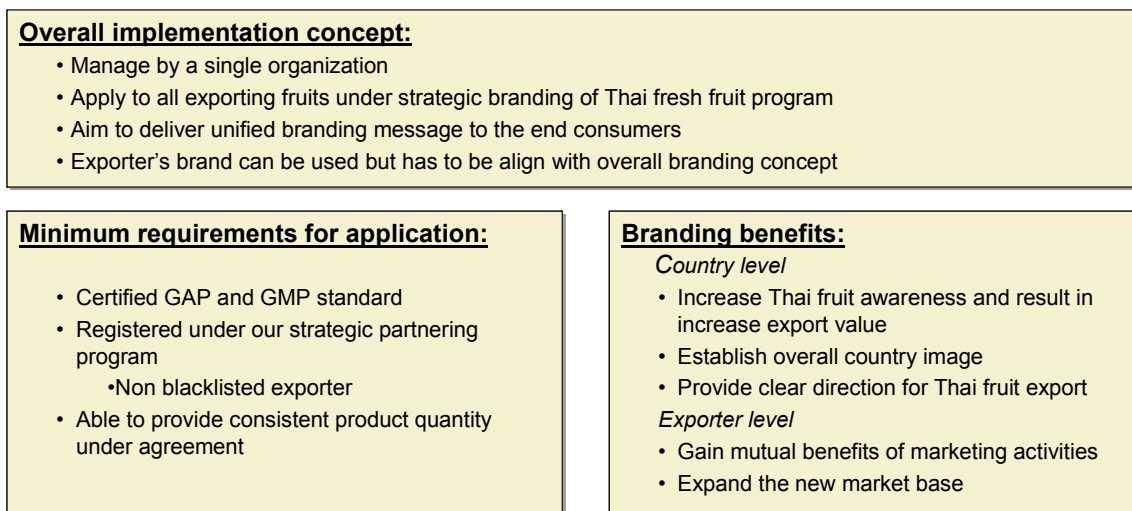


Figure 7 Implementation of a Branding Concept for Thai Fruits

## CONCLUSION

As an attempt to increase the competitiveness of Thailand's fruit export sector, this study identifies the key issues that hinder the ability of Thailand's fruit growers to gain market share in China. The research framework covers important aspects such as branding and marketing; new product development; logistics and distribution; and partnership within the supply chain. The research suggests that a new market-orientes business model be developed along with a commitment to reform production processes throughout the supply chain. In addition, the study reveals in-sights into the Chinese market (especially in Guangzhou and Shanghai) for Thailand's fruit exports, including durian, mangosteen, small bananas and pomelo. A market and branding strategy was proposed to create a greater awareness of the uniqueness of Thai fruits amongst consumers in China. Finally, in order to coordinate and push forward these initiatives, it

is recommended that a Thai Fruit Trade Board be established. Such a trade board should be comprised of several inter-dependent parties with a clear mandate to react to changing market conditions.

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### **REFERENCES**

- Access Asia Limited, 2004. Fresh fruit & vegetables in China: A market analysis, Shanghai.
- Aked, J., 2002. Maintaining the Post-harvest Quality of Fruits and Vegetables, Fruit and Vegetable Processing: improving quality. Chapter 7.
- Cooper, M, Ellram, L., Gardner, J. And Hank, A. 1997. Meshing Multiple Alliances. *Journal of Business Logistics*, Vol 18, No 1, 67-89.
- Ellram, L. and Hendrick, T. 1995. Partnering Characteristics: A Dyadic Perspective. *Journal of Business Logistics*, Vol 16, No 1, 41-64.
- Huang, S. 2002. China : An Emerging Market for Fresh Fruit Exporters. *Fruit and Trade Nuts Outlook*, March, 17-20.
- Landua, R. 1992. Technology, Capital Formation and U.S. Competitiveness. in *International Productivity and Competitiveness*. New York, Oxford University Press.
- Morgane D., Labaste P. and Voisard J. 2003. Linking Farmers to Markets: Exporting Malian Mangoes to Europe. *Africa Region Working Paper*, Series No. 60, August.
- Pollack, S. 2001. Consumer Demand for Fruit and Vegetables: The U.S. Example, in *Changing Structure of Global Food Consumption and Trade*, edited by Regmi A., 49-54, May.
- Porter, M. 1980. *Competitive Strategy: Techniques for analyzing industries and competitors*. New York, The Free Press.
- Porter, M. 1990. *The Competitive Advantage of Nations*. New York, The Free Press.
- Shields, D. 2001 A. China's Fruit & Vegetable Sector : A Changing Market Environment. *Agricultural Outlook*, June-July, 10-13.
- Said R. 2001. Making an impact via branding. *The New Straits Times Press (Malaysia) Berhad*, 23 December.

- Thompson, G. 2001. Supply Chain Management Building Partnerships and Alliances in International Food and Agribusiness. Rural Industries Research and Development Corporation, April.
- Trienekens, J. and Willems S. 2002, Cross-border Agri Supply Chains, in the challenge of global chains; integrating developing countries into international chains, a potential risk or an opportunity? Wageningen Academic Publishers, 63-68.
- Wick, E. and Fensterseifer, J. 2003. Towards A National Agribusiness System: A Conceptual Framework. International Food and Agribusiness Management Review, Vol 6, Issue 2, 99-110.
- Wong, E. and Rutledge J., 1997. Exporting fresh fruit to China: risky but profitable. AgExporter. October.