REGOVERNING MARKETS:
SECURING SMALL PRODUCER PARTICIPATION IN
RESTRUCTURED NATIONAL AND REGIONAL AGRI-FOOD
SYSTEMS IN THAILAND

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Executive Summary

Thai economic conditions are favorable for modern trading business. Thailand’s population is 63 million, of which 20% is classified as urban and provides good market prospects for foreign and local retail investors.

Thailand’s retail stores total in 2001 was 357,460, and may approach the 400,000-store level in 2006. Modern trade-retailing systems increased rapidly and accounted for 26% of total retail sales in 2004; estimated at USD 51,073 million. The food sector accounted for 59.87% of the market. In modern retail stores, food sections’ share of the business is usually 80% of the total sales of the store.

Hypermarkets have emerged as the major format in Thailand’s retail sector. The number of these stores reached 100 in 2002. The hypermarket sector is extremely competitive in terms of margins and prices, which are relatively low. As a result, the need to build up scale is paramount. However, due to new regulations in terms of store specifications, supermarket-format (less than 1000 square meters of retail space) may soon be preferred. Multinational chains have moved toward smaller types of stores (e.g. convenience stores joined to petroleum/gasoline stations).

Due to high competition, hypermarkets compete heavily on the basis of price. This proves to be an effective tool for the middle or lower market levels. All companies have their own brands offered at cheaper prices. As an added strategy for customer retention, hypermarkets and supermarkets provide membership, loyalty, and credit cards.

Supermarket chains like Food Lion, Foodland, Villa Market and Family Mart, cater for middle to upper market levels, and compete in terms of premium products. The Thai-owned TOPS supermarket chain positions itself at the middle level but aimed at high quality (not premium) fresh and safe produce. TOPS allots 5% of its shelf space to local/native vegetables without sanitary certification. All companies, however, claim that they provide their customers with safe food products.

Due to lack of efficient logistics management and poorer facilities, prices in “Mom and Pop” stores became much less competitive. The impact of hypermarkets, supermarkets, and especially convenience stores on the survival of Mom and Pop stores became a controversial issue in 2000, which led to zoning regulations that took effect in 2003. The regulations, which apply to all provinces outside Bangkok limit large stores (defined as having at least 3000 square meters of retail space) to locate at least 15 km from an urban center. As a result, major companies rushed to all areas to secure sites and some in Bangkok resorted to mergers and acquisitions.

1 Prepared by Dr. Aree Wiboonponse, Associate Professor, Faculty of Agriculture and Dr. Songsak Siboonchitta, Dean, Faculty of Economics, Chiang Mai University with the financial support from the Institute for Environment and Development (IIED). Valuable comments and feedbacks from Dr. Bill Vorley and Dr. Nerlita M. Manalili and excellent project assistance from Ms. Locel Ann C. Tumlos and Ms. Puttawan Khunthong and Wimon Arayarat for their excellent research assistance throughout the project.
Rice and fresh vegetables are the selected commodities for this research as both are produced by large numbers of small farmers. Even though Thailand is the largest rice exporter, over 60% of the production is still consumed domestically. The value of rice sold in the modern retail system is estimated to be 10,000 million baht. This makes the retail market for rice highly active and competitive, with over a hundred brands available in the market.

The shelf allotment for vegetables, on the other hand, has been increasing rapidly in hypermarkets/supermarkets in recent years, though the value of sales has not been revealed. As more and more consumers are becoming health conscious, producers are moving towards residue-free, hygienic vegetables, and towards organic production practices. Apparently, the prices of safe vegetables are attractive in most retail outlets. The price difference between hygienic (the products are supposed to contain pesticide residues lower than the maximum level set by Codex) and conventional grown vegetables is said to be more than threefold, even for common vegetables such as cabbage or water spinach. However, chemical free vegetable production is labor intensive, and thus if labor cost is included in the cost benefit analysis, which is not usually the case, then profits may either be reduced or turned into a loss level.

Thai urban consumers have adapted very positively to hypermarkets and have grown to prefer a modern shopping style. With increasing incomes and changing preferences, as well as enhanced health consciousness, Thai consumers are increasing their purchases of small-package rice and safe vegetables from modern stores. However, both conventional and safe production products are still found side by side in hypermarkets, despite the companies’ pronouncing safe food as their strategic goal. These stores confirmed they undertake chemical residue testing regularly to ensure food safety.

The high competition among modern trading chains has had positive impacts on consumer benefits in terms of lower prices and has had a large negative impact on traditional stores through reducing producers’ margin. Accordingly, when companies adopt low price strategies, they must operate efficiently to reduce cost and purchase at the lowest price for a given quality. Having branches located in all regions of Thailand, logistics management at their distribution centers is essential. Of all modern retailers, only Makro requires suppliers to deliver products directly to each branch. Although local suppliers can limit their delivery to local/regional branches, they must meet a minimum volume. This restriction is an obstacle to entry for small suppliers.

To be part of the modern supply chain, a supplier needs to have substantial capital. Suppliers are required to bear the costs i.e. discount during campaign programs, paying entrance fee directly or indirectly, and pay rebates on total annual sales. Large hypermarkets demand additional fees for new branches at 10,000 Baht per item, which is high for primary produce.

There is a possibility for medium size rice suppliers to participate in the market chain of hypermarkets, but only at the local branch level, and through farmers’ groups or cooperatives. However, in order to avoid competition, they should only focus on one or two local brands per store considering there are 80 other brands distributed at national level.

As for vegetables, only professional suppliers of small to medium scale operations can hold their place in the modern chain system. A few small producers, who supplied hygienic vegetables, found it difficult to maintain their business link with local branches of supermarkets and they eventually dropped out. Evidently, no producers appeared to supply to local hypermarkets. The existing system shows that the only participation the vegetable producers have in the chain is to produce their crops for a primary contractor, who in turn
contracts to upper suppliers of modern retail companies. In the absence of the capacity to control marketable production at the right volume and time, there is a very limited place in this system for small independents, or small-group producers, to take part directly. There is almost no indication of concern and intention on the part of the multinational or Thai companies to promote market participation by small producers. Their existing programs are only aimed at marketing promotions, and nothing more.

To be optimistic, one may expect that high quality rice and vegetables are distributed to various countries through the multinational companies’ chain distribution systems, as they have indicated that Thailand is chosen as a hub. These are expected to benefit small producers as long as companies guarantee fair-trade marketing, or government authorities will look into the small producers’ welfare.

After the controversial issue on the modern retail system’s adverse effect on traditional retail stores, the Ministry of Commerce initiated a so-called “Allied Retail Trade” (ART) Company in 2002. An ART chain store is expected to operate efficiently in serving its community as a modern convenience store. As such, an ART should also carry community food products and employ similar strategies to “Lemon Farm” (located in front of Bangjak gasoline stations).

To enhance small and medium producers’ direct participation in the supply chain of modern retailing stores, the following policy related initiatives, on the part of the private and public sectors, are recommended.

**Private Sector**

A. Modern Chain Retailers

1. The top priority is to encourage companies’ managements to contribute a small fraction in the development of the producers’ business in network production-marketing, in cooperation with government agencies.

2. Do away with entrance fees (a fee paid for being a store’s new supplier) (in any form), which is actually an illegal practice, e.g. 10,000 baht per item when a new store is opened.

3. Payment period to suppliers should be shortened from 30 to 15 days.

4. The practice of purchasing fresh produce, such as vegetables, on consignment basis should be reviewed, as it may be unfair and not helping the small producers/suppliers.

5. These stores should provide supervision of logistics management, as well as granting special financial conditions at the initial stage, to small suppliers.

B. Farmer Groups

1. Technical assistance in terms of logistic management, production planning, and sanitary certification are essential. Vegetable producers should form a group to work as a network, as mentioned above, for efficient technological transfer. As for rice, its logistic management should be improved.
2. As for premium quality products and specialty with regular production, producers (or groups) should consider supplying to Thai supermarkets e.g. Foodland and Villa Market in Bangkok, or specialty stores in provincial market outlets e.g. Ban Suan Pak for hygienic vegetables or organic rice, or Rim Ping Supermarket (in Chiang Mai).

3. Moving into the convenience store business of hypermarket companies also open opportunities for small local processors and packaged rice, and in the future should provide space for fresh produce.

4. While the companies are conditioning suppliers to deliver them a minimum volume (e.g. 40 kg of vegetable and 100 bags of rice per delivery), some of their branches ordered small uneconomical amounts. The suppliers are penalized when they fail to meet the conditions, but not vice versa. Thus, there is one-sidedness and unfair-trade business in practice.

**Public policies**

1. Thai government should effectively use anti-trust laws to prevent adverse effects of the modern trade systems derived from monopsonistic /monopolistic power. In this respect, the market share of a company should be calculated as the sum of the company’s total value earn, from all formats the company operates in the whole retailing system (i.e. hypermarket and/or supermarket and/or convenience store).

2. Encourage new ART stores to gain economy of scale of the distribution function and to counter balance the market power of large chains.

3. Encourage traditional grocery stores in appropriate locations to carry fresh produce i.e. adopting the concept of Delhaize’s Food Lion i.e. “shopping at a wet market near home.”

4. Promote selling stands of safe produce in every wet market.

5. The government should support and provide tax privileges for companies involved in small producers business development.

6. Local officers should be encouraged to coordinate the network, such that product flows are coordinated and planned to a high degree of precision.

7. The existing services for sanitary certification should be extended at lower cost.

1.0 Composition and Structure of Supply Chain

1.1 Agriculture, Rice and Vegetable in the Domestic Market

The main feature of Thai agriculture has always been small-scale farmers. The average land holding size is 4.0 hectare per family. The Thai government through various National Development plans set several policies to support production by small-scale farmers. The GDP share of the agricultural sector has continuously declined; from 25.00-
25.08% in 1972-1976, to slightly less than 10% in 2004. Also the growth rate of the agriculture sector is declining; from 5.24% in the third National Plan (1970's) to 2.5% (1990's), while the growth rate of the non-agricultural sector was substantially higher (7.04% to 9.18%) in the same period. This suggests that the farm sector is much less developed.

During the green revolution, modern agricultural practices such as the applications of chemical fertilizers, herbicides, insecticides and fungicides increased substantially, and led to high yield. High yields are likewise accompanied by high costs comprised mainly of hired labor (55.29%) and agricultural chemicals (29.21%). The high labor cost is largely because of the boom in the construction and manufacturing sectors prior to the economic crisis of 1997. Many farmers themselves are engaged in non-farm employment, and it is surprising to find that farm income (25,200 baht/year or USD 630) accounts only for half of the household income (58,000 baht/year). On the national average, farm households incur dissaving of 1,270 baht or 31 USD.

Rice is obviously the most important crop in Thailand as it accounts for the largest share of total area cultivated, and involves the highest proportion of farm households. The estimates of the cultivated area for the wet and dry seasons are 9.23 and 1.53 million hectares (for the 2003/2004 crop year). Thailand’s share of the world’s rice market is 28%. Though the number one exporter, a large proportion of production (62.7%) is still consumed domestically. This makes the domestic rice market very active and competitive. Major rice mills cum exporters increase their investment to domestic markets and have been supplying modern retail chains with small-packaged rice. Competition in this market sector is becoming highly intense as its total value approaches the 10,000 million baht level per year.

Over a hundred brands of rice are available in retail stores for urban and rural consumers. Given a small number of large brands, modern trade house brands, and a hundred of other independent brands, the possibility for small farmers to successfully compete in the modern supply chain seems very slim (It is not easy to compete for shelf space with larger scale suppliers, who have higher capital and an ability to maintain quality standards).

Vegetables are selected for this study due to their increasing importance in the value chain, and their potential as an alternative to field crops in irrigated areas. Vegetable production areas are expanding, as well, due to rapid increases in the exports of frozen and canned vegetables. Also, a large number of farmers are being contracted to produce a specified quality and quantity of produce for the processing, export and retailing business. Still, the majority of vegetable growers conventionally produce for open markets. The total production area of 50 kinds of commercial vegetables as reported by the Department of Agricultural Extension was around 3.2 million rai (0.512 million hectare) in 2000, generating 5.2 million baht per year.

The shelf space for fresh vegetables in supermarkets has increased rapidly during the past few years, as more urban consumers fully adopted the one stop shopping habit afforded by supermarkets. The number of varieties of vegetables available also increased. This seems to open up new opportunities for growers to participate in this value chain. The issue however, remains to be explored in the latter sections.
1.2 Market Prospects

With a population of 63 million in 2003, Thailand has the tenth largest population in the Asia/Australasia region. By 2016, the Thai National Statistical Office forecasts that the population will reach 70 million. Relatively youthful, 25% of the population is under 15 years of age; with only 6% aged 65 years and over.

Over 20% of the country's population is classified as urban and the majority of these are located in Thailand's capital, Bangkok, which is also by far the largest city. In fact, there are no other cities with over 400,000 inhabitants. The proportion of the population living in urban areas is rising annually with a 29% increase posted in 2001.

The Thai economy experienced rapid growth during the 1990s, and was referred to as one of Asia's “tigers” until the 1997 financial crisis. Thailand's GDP suffered negative real growth in 1998. However, the country has quickly recovered and is now experiencing the highest rates of GDP growth since the economic crisis. The country weathered the regional downturn in 2001, and growth accelerated further in 2002 and 2003, and is forecast to remain impressive at a 6.5% level in 2004 (www.bot.or.th, www.planetretail.net/CountryProfiles).

1.2.1 Consumer spending

Consumer spending fell in the late 1990s, following the economic crisis, but has since recovered strongly as the economy prospered, unemployment declined, and consumer confidence returned. In addition, Thais, especially the urban young, are increasingly becoming fashion-brand-conscious, and the population as a whole is gradually becoming more Westernised. As a result of these trends, grocery expenditure as a proportion of all consumer expenditures is likely to decrease as Thais shift a greater share of their spending to other categories such as transport, telecommunications, health, recreation and leisure goods. Although its GDP is gradually on the rise, it must be remembered that Thailand is still relatively poor by Western standards. There are vast differences between the spending power of those in Bangkok and the rest of the country, especially in the rural areas. The average monthly per capita income of a citizen in Bangkok is twice the national average.

Thailand's retail sector is advancing strongly. During the 1999 to 2003 period, retail sales increased by over a quarter. While retail sales per capita is slightly below average for the region, and a long way below Western standards, the sector is gradually growing.

Food is still an important component of retail sales, accounting for 60% of the total in 2003—reflecting Thailand's large rural and relatively poor population for the 1999 to 2003 period. While growth in retail sales will continue, food retail sales as a proportion of total retail sales (Table 1) will continue to decline. This is attributed to the fact that as the retail sector develops, and as Thais experience an increase in disposable incomes, they are able to spend more on non-essential items.
Table 1. Retail market sizes

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail sales (USD mn)</td>
<td>43,442</td>
<td>47,883</td>
<td>51,073</td>
</tr>
<tr>
<td>Retail sales / capita (USD)</td>
<td>699</td>
<td>762</td>
<td>805</td>
</tr>
<tr>
<td>Food retail sales (USD mn)</td>
<td>26,135</td>
<td>28,806</td>
<td>30,591</td>
</tr>
<tr>
<td>Food retail sales / capita (USD)</td>
<td>420</td>
<td>459</td>
<td>482</td>
</tr>
<tr>
<td>Modern grocery distribution, total sales (USD mn)</td>
<td>11,696</td>
<td>12,556</td>
<td>13,452</td>
</tr>
<tr>
<td>Modern grocery distribution, total sales / capita (USD)</td>
<td>188</td>
<td>200</td>
<td>212</td>
</tr>
<tr>
<td>Modern grocery distribution, food sales (USD mn)</td>
<td>9,469</td>
<td>10,185</td>
<td>10,859</td>
</tr>
<tr>
<td>Modern grocery distribution, food sales / capita (USD)</td>
<td>152</td>
<td>162</td>
<td>171</td>
</tr>
</tbody>
</table>

Source: www.planetretail/CountryProfiles

The share of food sold through modern retail systems is 35% of total retail food sales. However, within the modern grocery, food sales take up the large proportion of the business (i.e. 80%). This indicates the opportunity for food expansion within the modern trade system.

1.3 Retail Structure

Hypermarkets have emerged as the major growth format in Thailand’s retail sector and are now the most important modern retailing format. The number of hypermarkets almost doubled between 2000 and 2004 to reach close to 100.

Hypermarkets have been the preferred format by most of the foreign grocers that have entered the market over the last decade. Most of these operators have pursued vigorous expansion, most notably Tesco and Casino, and this has led to the format proliferating across the country. However, the majority of hypermarkets still tend to be concentrated in Bangkok and its vicinities.

Thais have taken to hypermarkets extremely positively. With the combined attraction of wide product ranges, low prices and impressive store environments, hypermarkets are slowly clawing market-share from traditional wet markets, mom-and-pop stores, and smaller supermarkets. The popularity of wet markets lies with their strong fresh food offerings, which many modern retail operators have attempted to replicate by providing the feel and product range of the wet markets in their stores. Because Thais treat shopping at a hypermarket as a sort of leisure activity, many hypermarkets, especially those housed within shopping centers, have provided built-in entertainment factors to encourage shoppers.

With the exception of a handful of stand-alone units, foreign companies operate all of the major hypermarket chains. They have had an advantage over the domestic players in terms of their experience, funds, and global sourcing network. Tesco currently has the largest network, having more than doubled its store numbers in the past five years. Tesco’s closest competitor is Casino’s Big C chain. The other major hypermarket operator in Thailand is Carrefour, which is now planning to break out of Bangkok and establish stores elsewhere in the country.

The hypermarket sector is extremely competitive in terms of prices and margins, which are relatively low. As a result the need to build up scale is paramount.

Superstores are also popular, and like hypermarkets, they are almost exclusively the domains of foreign retailers. Ahold’s TOPS network was the most significant, although the Dutch retailer sold the chain to its local partner, the Central Group in March 2004, completing the group’s
withdrawal from Asia. The other major superstore operator is Sam Jusco, a subsidiary of Japan's AEON. However, as a result of increasing competition from the larger hypermarkets, and the high investment for opening of superstores, the company has ceased expansion moves, and has reduced the number of their stores.

Market shares of modern trade (hypermarket/discount and supermarkets)
Five leading retailers share 50 percent of the total sales. The market share of retailers seemed to fluctuate substantially during the two periods. Partly, this may be due to seasonality since August is in rainy season and thus hypermarket/supermarket is more convenient.

Table 2. Thailand market shares: top retailers, August and October 2004.

<table>
<thead>
<tr>
<th>Band</th>
<th>Company</th>
<th>Total sales Aug. (THB mn)</th>
<th>Market share (%)</th>
<th>Total sales Oct. (THB mn)</th>
<th>Market share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Central Group</td>
<td>80,357</td>
<td>14.6</td>
<td>12,013</td>
<td>2.7</td>
</tr>
<tr>
<td>2</td>
<td>Tesco</td>
<td>79,564</td>
<td>14.5</td>
<td>55,902</td>
<td>12.6</td>
</tr>
<tr>
<td>3</td>
<td>Casino</td>
<td>57,485</td>
<td>10.5</td>
<td>34,824</td>
<td>7.9</td>
</tr>
<tr>
<td>4</td>
<td>SHV Makro</td>
<td>42,557</td>
<td>7.7</td>
<td>32,811</td>
<td>7.4</td>
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<tr>
<td>5</td>
<td>Charoen Pokphand Group</td>
<td>26,001</td>
<td>4.7</td>
<td>18,843</td>
<td>4.2</td>
</tr>
<tr>
<td>6</td>
<td>Carrefour</td>
<td>21,625</td>
<td>3.9</td>
<td>17,300</td>
<td>3.9</td>
</tr>
<tr>
<td>7</td>
<td>AEON</td>
<td>9,200</td>
<td>1.7</td>
<td>3,525</td>
<td>0.8</td>
</tr>
<tr>
<td>8</td>
<td>ExxonMobil</td>
<td>8,237</td>
<td>1.5</td>
<td>6,177</td>
<td>1.4</td>
</tr>
<tr>
<td>9</td>
<td>ChevronTexaco</td>
<td>6,739</td>
<td>1.2</td>
<td>5,054</td>
<td>1.1</td>
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<td>10</td>
<td>Delhaize Group</td>
<td>6,299</td>
<td>1.1</td>
<td>5,669</td>
<td>1.3</td>
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<tr>
<td>11</td>
<td>FamilyMart</td>
<td>5,019</td>
<td>0.9</td>
<td>3,764</td>
<td>0.8</td>
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<td>12</td>
<td>AS Watson</td>
<td>4,079</td>
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<td>2,855</td>
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<td>13</td>
<td>Shell</td>
<td>3,619</td>
<td>0.7</td>
<td>2,714</td>
<td>0.6</td>
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<td>14</td>
<td>ConocoPhillips</td>
<td>2,995</td>
<td>0.5</td>
<td>2,246</td>
<td>0.5</td>
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<td>15</td>
<td>Boots</td>
<td>2,540</td>
<td>0.5</td>
<td>1,778</td>
<td>0.4</td>
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<td>1-15</td>
<td></td>
<td>356,316</td>
<td>64.9</td>
<td>205,476</td>
<td>46.3</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>192,962</td>
<td>35.1</td>
<td>237,929</td>
<td>53.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>549,278</td>
<td>100.0</td>
<td>443,405</td>
<td>100.0</td>
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</tbody>
</table>

Source: [www.panetretail.net/RetailerAnalysis/Ranking_Top5MarketShare.asp](http://www.panetretail.net/RetailerAnalysis/Ranking_Top5MarketShare.asp)

1.3.1 Supermarkets

Supermarket development in Thailand has been hampered by the dominating influence of the hypermarkets and had seemingly reached the saturation point of a 500-store level. As a result, there are only a handful of supermarket chains, the most important of which is Delhaize's Food Lion network. Since its market entry in 1997, Food Lion had expanded rapidly, and have merged with a foreign chain in an attempt to compete with the wet markets and hypermarkets. Its focus is on fresh produce with the aim of creating stores that resemble "shopping at a wet market near home."

There are some Thai-owned supermarket chains that were able to carve out a presence in the foreign dominated retail sector, namely: the Bangkok-based Foodland, Villa Market, Home Fresh Mart, and Tang Hua Seng.
1.3.2 Discount stores

Discount stores’ presence in the market is not yet that noticeable. However, this may soon change with Casino’s launching of Leader Price soft discount format in March 2002. By the end of 2005, Casino is hoping to have a network of around 50 Leader Price stores in operation.

1.3.3 Convenience stores

With competition amongst the hypermarkets intensifying, convenience stores are seen as an important growth format for the future. Almost all of the major operators have ambitious expansion plans that will see their chains proliferate in most of the major urban areas. There are approximately 3,600 convenience stores in Thailand at present.

The 7-Eleven chain, operated by CP Seven Eleven under franchise from Ito-Yokado, is by far the largest and is geared towards rapid expansion. Japan’s FamilyMart is active in Thailand through its joint venture with Siam FamilyMart Co Ltd and is focusing on expanding into provincial areas.

Another major player, with around 100 stores at present is the US-owned AM/PM chain, with half of its stores located in Bangkok.

A relatively new entrant into the convenience store sector is Tesco, which is pushing ahead with a trial number of Express stores located both at Esso petrol-forecourts and stand-alone stores in more crowded neighbourhoods across the country.

2.0 Evolution of Modern Retailing, and Local Grocery Replaced Development of Supermarkets, in Thailand

Foodland Supermarket is a Thai-owned business established in 1968, though not the first supermarket in Thailand. Prior to Foodland, the Hong Kong retailing chain store “Dailyland” had been operating 3 branches in Bangkok and Pattaya. In the first year, Foodland was named “Patpong supermarket” and renamed New Pleanjit in 1972, then Foodland later in 1973. When Dailyland sold all of its 4 branches in 1973, Foodland bought the one at the high income level location of Bangkok. In 1988, it invested in a big area in Ladphrao (i.e. 5 rai or 0.8 hectares) where its headquarters and its largest store (area of 2500-square meters) are located. In the following year, it branched out of Bangkok, specifically in Pattaya, and experimented with 24-hour operations at Patpong (center of Bangkok) - a first for supermarkets in Thailand. As of 2002, Foodland operated 8 branches, and was the only supermarket that served customers with a large fresh products department, which accounts for 50% of the total of 13,000 items. Foodland had been famous for serving the freshest and highest quality food for over 30 years. Foodland was a stand-alone format, while the other Thai owned chain stores (TOPS) are within the shopping centers of either Central or Robinson department stores (Boriraks, www.businessthai.in.th, 2002).

The “Mom and Pop” (M&P) grocery stores have long been traditional features of Thai groceries. Up to now, they operated at lower operational costs, but since no professional managers are hired, on a level that is less efficient. Setting goals, targets, and strategic planning, are crucial for growth or survival in the highly competitive retail environment, and are not common to these stores. Most lack access to credit from financial institutions. Most either lack the foresight or have no intention at all to adopt strategies like business partnerships among grocery stores, or network/relationships up and down-stream. This is
mainly due to the traditional way of running a business, where family trade secrets are seldom shared and where owners have been primarily lacking in trust.

M&P’s acquire supplies from various sources. The major suppliers are secondary and tertiary wholesalers (Table 3). The long marketing channel, as well as smallness of purchase sizes, increase the costs due to diseconomy scale.

<table>
<thead>
<tr>
<th>Table 3 Sources of supplies to retailers</th>
<th>% of M &amp; P stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary &amp; tertiary wholesaler</td>
<td>76.5</td>
</tr>
<tr>
<td>Producer</td>
<td>48.9</td>
</tr>
<tr>
<td>Markro</td>
<td>43.1</td>
</tr>
<tr>
<td>Tesco Lotus</td>
<td>39.5</td>
</tr>
<tr>
<td>Big C</td>
<td>19.9</td>
</tr>
<tr>
<td>TOPS</td>
<td>11.2</td>
</tr>
<tr>
<td>Others</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note: The numbers indicate percentage of sample stores interviewed. Multiple answers are allowed.
Source: ABAC and Kungpleturakit Newspaper survey in 2002

By nature, (M&P) grocery management problems have centered on tax problems (i.e. purchase tax) and the absence of proper inventory and logistics management. They have not adjusted to changes in consumers’ life style and the changing shopping behaviors and attitudes. The fact is, consumers in Thailand became less brand loyal as other factors have become more important than “brand” (Kitivej pokawat, 2003; Wiboonpongse et al., 2000)

In 1985, the Central Retail Company (CRC) entered the grocery sector, mainly to protect its own market. The CRC aimed to create fully air-conditioned convenience stores where fresh food accounted for only 10% of sales. The format is more of a supermarket than a “Central mini-mart”. The CRC’s first 3 branches, in Bangkok and Thonburi, were highly successful and were followed by many other stand alone mini-marts such as Big 7 (adapting the style of 7-Eleven) and K Mini-mart. This was long before 7-Eleven opened its franchises in Thailand. In 2003, there were 2,397 7-Eleven stores all over Thailand. The CRC mini-mart expanded to a 20-branch level in Greater Bangkok, but later stopped operation prior to its foreign-joint-venture with Ahold.

Convenience stores in provinces outside Greater Bangkok belong either to department stores, or to wholesalers, and are mostly foreign owned. They adopted the CRC concept in order to expand to other provinces and protect their market share. Observations, from twenty years of experience in Chiang Mai, suggests that while locally owned department stores also followed suit, they were less successful due to their inadequate management capability, lower capital and higher inventory, and transportation costs.

In 2001, there were 357,460 retail stores, of which 280,368 were food retailers (Euromonitor International, 2003, cited by Teinputh, 2003). The multinational firms’ joint ventures with Thai companies operated 81 branches in Thailand for the same year, and the number increased to 128 branches in 2004. With the same growth rate, it is expected to reach 150 and 300 store levels in 2005 and 2010, respectively. Half of the medium, and over 200,000 small, groceries are likely to fold as a result (Kitivej pokawat, 2004).

In 2006, the total retail value is expected to increase to 1,822.2 billion (45.28 bn. USD) with a 37% share being the food sector. The fact that market shares of modern trade is expected to increase at about 9% pa. (Teinputh, 2003), alarmed local businesses and Provincial
Chambers of Commerce who wanted to prevent the opening of new branches of modern retailers in their provinces.

The rapid growth of large, foreign, modern trade stemmed from the government policy for foreign direct investment, especially after the economic crisis in 1997 (TDRI cited by http://www.businessthai.in.th, 2002) in supporting private investment.

With the low price of land that prevailed after the economic crisis, large businesses expanded their branches at lower investment costs (TDRI as cited by www.businessthai.in.th, 2002).

According to TDRI, the competition among modern trading chains had great impact on the traditional stores, profits and benefited consumers. Profits of traditional stores were reduced by 7% during 1997-2002 periods. The suppliers to these chains were the most affected, due to loss of bargaining power against large chain stores as the suppliers’ discounts provided to the chain stores increased from 3-5% to 5-10%. In addition, suppliers are required to pay an initial fee to bear the cost of discounts during campaign programs, and advertisement costs of 2-3% of total sales. Subsequently, due to lower profit margins, suppliers struggle to increase their volume of delivery. As a result, consumers are the more benefited from price wars amongst hypermarkets, in addition to the benefits derived from lower retail prices, which are usually 10% lower than traditional grocery stores.

The ABAC Poll, together with Krungthep Turakij Newspaper, conducted a survey in 9 provinces (23 Nov. 2002) to investigate the impact of modern trade on local grocery businesses. The research revealed that 68% of retail stores faced a decline in total sales due to economic conditions, while 49% of local stores reported their clients switched to 7-eleven, Tesco Lotus, Big C, and Carrefour. The 7-Eleven chain was blamed for the collapse of a large number of local grocery stores.

Half of the surveyed stores had adjusted their strategies to survive. The most important customer-retention strategy is by improving their manner of service provision (56%), which is considered as the most undesirable factor and the one pushing customers away from traditional retailers in the past. Identified solutions are store layout improvement (40%); better selection of goods to satisfy demand, clear price labeling, product quality enhancement, lowering price and improving inventory management. Some stores even provide home delivery services (Table 4).

<table>
<thead>
<tr>
<th>Modern retail stores</th>
<th>% of M &amp; P stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-eleven</td>
<td>49.4</td>
</tr>
<tr>
<td>Tesco Lotus</td>
<td>37.7</td>
</tr>
<tr>
<td>Big C</td>
<td>22.7</td>
</tr>
<tr>
<td>TOPS</td>
<td>22.0</td>
</tr>
<tr>
<td>Markro</td>
<td>15.8</td>
</tr>
<tr>
<td>AM-PM</td>
<td>8.4</td>
</tr>
<tr>
<td>Others</td>
<td>8.1</td>
</tr>
</tbody>
</table>

Note: The numbers indicate percentage of sample stores interviewed. Multiple answers are allowed.
Source: ABAC and Krungthep Turakij Newspaper survey in 2002

To protect local retailing business, retailers suggested that the government support the sector by; reducing tax for the SMEs, limiting expansion of foreign joint venture retailing branches, providing loans to small businesses, set price floors for, and limit service hours of, discount/hypermarkets. The TDRI believes however, that controlling foreign modern trade...
expansion will not help traditional stores. On the contrary, it will only increase economic rent to existing stores and large suppliers.

An initiative undertaken by the Ministry of Commerce to help traditional stores handle the competition of modern trade stores was the formation of “Allied Retail Trade” or ART in 2002 with over one hundred thousand members. The company planned to manage the chain the same way as their counterparts do, and by creating an ART house brand for small and medium enterprises’ products, develop 2,000 franchise stores in the first year. One of the main mandates of ART is to support local traditional grocery stores, both at local and national level, in the face of growing competition. The government provided ART an initial capital of 395 million baht. The company’s plan is to become a fully private organization and to return the capital to the government within 3 years. The ATR stores will have the format and appearance of a modern convenience store (www.businessthai.in.th 6-9-2002).

2.1 Property regulations

Foreign companies, particularly the hypermarket operators, are under increasing scrutiny from the government, as the latter is aiming to limit the proliferation of the former, in an attempt to protect local small and medium sized companies. Under new zoning regulations drafted by the Town and Country Planning Department, and which took effect in August 2003, large retail stores have to be located at least 15 kilometres from the commercial centres of provincial towns. The regulations apply to all provinces outside of Bangkok. Large stores are defined as having at least 1,000 square metres of retail space. In addition to being located at least 15 km from an urban centre, each store must be at least 500 metres away from an intersection, with 70 metres of front-setback and 20 metres of side setbacks. Operators must also reserve 30% of their sites for green areas. Large retailers seeking to establish outlets require the approval of a 21-member provincial town planning subcommittee.

As a result Tesco, Casino and Carrefour rushed into all areas of Thailand, especially the North, in order to secure sites before the draft regulations became effective. Evidently, a new strategy emerged such as mergers and acquisitions, so as to secure space in Bangkok. As of August 2004, the Central Group had taken-over 20 branches of Food Lion, and the remaining 16 branches were taken over by foreign chains (Krungtepturakit, August 27, 2004).

2.2 Marketing Strategies of Modern Trade Chains

While Mom and Pop retail store owners are of traditional management style, the convenience stores like 7-Eleven emphasized the modern concept of supply-chain management. This is expected to bring down cost of inventory and boost supplier's efficiency in responding to consumer demand. Though, the managers did not expect to be as efficient as the “just-in-time” strategy, they carefully selected a wide variety of products in the store on the basis of high turnover rate. With this process, customers would receive new and fresh products and wide ranging choices. 7-eleven increased proportions of food store space and invested in a combined distribution center (CDC). This CDC is expected to the aid food sections of 7-Eleven, and thus increase its competitiveness over traditional grocery stores even further.

Marketing strategies of foreign, modern trade franchises are highly innovative and dynamic, as already mentioned. One such strategy is the direct marketing approach done via
distributing 50,000 copies of "Seven Catalogs" at a price of 20 baht, which is lower than the actual cost of 50 baht/copy. Consumers are induced to buy via mail order. The catalogues provide attractive discount values of 50-100 baht for each item, for the 2000 items of products. All discount stores were found to adjust their strategies to compete with 7-Eleven accordingly (www.businessthai.in.th, 2001).

2.3 Thai Consumers Preference and Behavior

Factors affecting consumer purchasing decisions for convenience stores in an urban area of a medium sized province (Udornthani) are; a wide range of choices (brands) of individual items (they can find items they want to buy), prices tags, which serve as an important tool for price information, location of store, conveniently accessible, and cleanliness, which is deemed important in terms of “distribution” or “place” factor. Good relationships and good manners of store attendants, as well as discounts and gifts, are important promotional strategies. (Nikomtase, 2002 cited by Teinputh, 2002)

Recent trends of consumers' behavior show increasing demand for convenience and innovative products. Ready to eat and attractive packaged products sold in modern trade or traditional stores are growing. Consumers prefer buying personal-care products and household products in supermarkets and discount stores, but candy and drinks in convenience stores. In general, especially in provinces outside Bangkok, consumers shop at modern trade stores because they can have pleasure while shopping, and enjoy the polite attention paid by store attendants. Besides these factors, consumers find it convenient to have meals at the shopping centers outside discount stores. Thai consumers tend to be changing from frequent shopping for a few items, to less frequent and planned shopping for larger items.

The Consumers' surveyed (OAE, 2004) on consumption of safety food in Bangkok, with a survey rate of 70% females and most respondents aged 41-45 years with high education, graduate and post graduate, and with income above 40,000 baht/month (1,000 USD). Most respondents have changed to safety food for the past 3-4 years. The report indicates that consumers pay more attention to food safety for fresh fruit and vegetables, than for rice. Seventy five percent buy fruit and vegetables while only 21% buy safety rice regularly. They indicated the need for safe protein products (meat, seafood and poultry), which are available only in a few certain stores.

The reasons cited for being food safety conscious are; health concerns and realization of the dangers of chemical use, which also affects the environment. Thirty four percent of respondents look for freshness of produce and safety, but are mindful of their high price. They place confidence in the store rather than quality certification from government agencies or the brand name of producers. Buying chemical free produce appears to raise household expenditure by 37.8%. Most consumers report difficulty in buying at the time of their convenience and on the lack of information regarding places where they can find the desired products. These are considered important information for marketers to build consumers’ confidence in their stores. TOPS and Foodland fully implemented strategies to gain consumers confidence on “safety and freshness” for their centers.

Despite many years of experience in buying chemical free produce, these consumers admitted they are unable to differentiate among “hygienic vegetables” “chemical free vegetables” or “organic”. Also, consumers wonder why these products demand higher prices than conventional vegetables when cost of production is less in the absence of the added cost of chemicals.
The lack of consumer’s confidence was confirmed by the Thai Farmers Research Centre of The Thai Farmers Bank (1996). Seventy percent of the consumers (of 780 respondents) indicated they bought health food from supermarkets, 21% purchased from green shops. Those who bought health food said the products were difficult to find and 14% said they were too expensive. Average price comparison for 20 vegetables in August 2001, amongst conventional, hygienic, and organic products were 30.54 baht/kg, 45.90 baht/kg and 51.75 baht/kg respectively (Sreesanpagit, 2002).

2.4 Product and Process Attributes

The Thai stand-alone type of modern retailing stores e.g. Foodland and Villa Market are well known for premium quality and safe products. The presently Thai owned supermarket “TOPS” adopted the safe food concept seriously, only recently, as a marketing strategy. Its supply chain management appears in Figure 1. Producers are required to join certification. In this case small producers are to change long-standing production practices in order to supply supermarket. For supplying Thai Fresh United, producers are to grow to precise quality standards and implement specific production practices (Boselie et al., 2003).

Though international modern trade chain stores like Carrefour have long been operating globally, it was introduced to Thailand only in the last few years. For instance, Carrefour has had world wide acceptance of its “Quality Cycle” program for a long time, but the same program has been in Thailand for only 2 years.

The first product introduced was pork, where Carrefour carefully set up a supply chain for the product that took one year to set up the system, as well as select the supplier. Although the price of this product is 15-20% higher than ordinary pork, the total sales increased by 60%. Subsequently, Carrefour prepared to launch healthy vegetables under the name “organic vegetables”. This is certified by “Organic Thailand” of Department of Agriculture and “BCS” (German certification). As for this vegetable project, Carrefour has contracted out to farmers 10 selected vegetables with all products traceable. This particular hypermarket also contracted out fruit growers in various provinces in the south and to the east of Bangkok (Prachambikran, Chantaburi and Chacaensao) to supply residue free pineapple, mangosteen, and mango. About 20% of fruits available in Carrefour are attributed to have come from this “Quality Cycle” program. Carrefour Thailand plans to export its contract grown vegetables and fruits world wide, in addition to existing exports to Singapore, which presently gets its supplies from Thailand (www.businessthai.in.th,5-5-2004).

This Carrefour program is an adjustment to the Thai consumption trend for healthy products as well as in response to the Thai governments policy on food safety.
3.0 The Link with Upstream Agents

3.1 Overall Picture of Rice and Vegetable Supply

3.1.1 Rice Supply and Marketing System

Rice has been the most important staple crop, and the main crop in terms of land use and number of farmers involved. It accounts for about 10 million hectares of wet and dry season cultivated land, and approximately 20 million tons of production. While Thailand may be the largest rice exporting country, its rice export value however, only accounts for 12% of the total agricultural export (next only to fishery and rubber) and only 3.46% of total export. Due to high competition in the world market and a continuing decline in prices, the Thai government have been promoting (by supplying purified seed at low price and arranging marketing exhibition programs) high quality rice (Hom Mali or jasmine rice) to replace the conventional / high yielding varieties. As a result, the production area of Hom Mali rice had increased from 1.6 million hectares (1990) to 2.5 million hectares (2001) or a 55% increase in a 10-year period. The share of rice export volume rose from 3.1% in 1989 to 20.0% in 2000, while the share in value rose from 4.1% to 37.6% indicating Hom Mali's marketability. Approximately 35% of production was exported. The domestic demand for Hom Mali rice has also increased along with production. This high quality rice caters to high-income consumers in both overseas and domestic markets.
Looking at the domestic marketing system of rice is a useful venue to determine how small farmers can participate in the modern trade supply chain, and whether they will be benefited in the process.

Although rice is grown in all regions of the Kingdom, the main producing areas are the northeast and the central regions. This is particularly true for Hom Mali rice. Tung Kula Ronghai, (TKR) covering a joint zone of four provinces in the northeast is famous for top quality Ham Mali rice. Chiang Mai, and Chiang Rai are among the few provinces in the North serving as promotional areas for Hom Mali production. However, as seen by domestic consumers, the quality of Hom Mali in the North cannot match that of TKR. The retail prices of the same grades in Bangkok therefore differ with respect to production locations.

There are various intermediaries involved in the rice marketing system, which have expanded through the uncoordinated initiatives of private individuals. Since rice producing areas are concentrated and situated at some distance from the main urban consumption centers, the rice marketing system takes a long route to consumers. At the local level, intermediaries include local buyers or assemblers, local commission agents, cooperatives, farmer groups, local assembling market centers, millers, wholesalers and retailers. At the regional level, large local assembling market centers and large millers are major intermediaries. At the final, i.e. country, level includes commission agents, wholesalers and exporters.

The local buyers play significant roles in linking farmers to millers. Sometimes they act as the millers’ buying agents. Although there are over 4.5 million agricultural cooperatives in Thailand, only 139 own mills, with an average capacity of 25-150 tons/day. Therefore most of the rice is channeled to non-cooperative buyers.

The general marketing channel of rice can be divided in 2 levels, i.e. paddy markets and rice markets. As to the former, 43%-60% of paddy passes through local buyers, and only 20% is handled by commission agents. As for the rice-marketing system, about 40%-50% of milled rice is for domestic consumption while the remainder is exported. Regarding Hom Mali rice, the OAE’s findings were from the survey in 4 regions of Thailand (Figure 2).

Agricultural cooperatives are included in farmers’ organizations. Apparently, there were only a small number of cooperatives active in buying Hom Mali rice and very few large cooperatives milled, wholesaled and retailed rice. For Hom Mali rice, some millers who are specialized in the high quality variety, tend to make direct business with the end buyers and be less dependent on commission agents (Wiboonpongse and Chaovanapoonphol, 2001). In this general marketing system, wholesalers and retailers are not detailed into trading format. In fact retailers are referred to, for example, as supermarket/discount stores. Large-scale mills are usually owned by businesses with national operations. They are also large exporters and direct suppliers to modern retailing chain stores. These national firms include CP Thai Rice, Bangsua Chiameng Rice Mill, and Thai Capital Rice etc.

Although export of Hom Mali rice accounts only for 35% of its total production (2002), most studies still place emphasis on export. This is mainly due to the impact of export demand and price on the domestic prices (i.e. retail, wholesale, and inevitably farm prices). The World price of rice is highly volatile, for instance, the f.o.b. price of Hom Mali Rice in 2002 dropped to 12,500 baht/ton from 22,000 baht, or by 43% of that of the 1997 price, due to changes in the import policies of China and declining demand from other countries. As a consequence, farmers received only 5,780 baht/ton, down from 8,255 baht/ton in the same period. Even with market efficiency in price transmission, (Wiboonpongse and Chaovanapoonphol, 2001) farmers could still incur losses when market price levels are too low.
There are increasing incidents of farmers' participation in the modern trade marketing activities through their organizations, especially cooperatives, farmers' groups, and farmers-houswives groups. Several cooperatives are successful and are granted national awards and recognitions. For example, San Patong Agricultural Cooperative and Phao Agricultural Cooperative in Chiang Mai are engaged in milling, wholesaling, and retailing rice. The former has a supermarket of its own for retailing rice and other groceries. These two cooperatives are contracted to supply especially high quality Hom Mali rice for AMWAY. They decline to supply hypermarkets/discount stores or other modern supermarkets. A simple reason is that they have high quality product, traded at the volume where they can make the best profit, and this is not from the large chain stores.

Another example is the efforts of various farmer groups in the northeastern region to form a rice mill network called “Esan Rill Mill Network.” This includes 14 farmer groups from 8 provinces distributing milled rice to local and community stores. One such highly successful group is from the northeast “The Farmer Group of Nakhonpanom.” The group is included in the list of 81 Thai rice exporters authorized to use the certification mark of Thai Hom Mali Rice, all others in the list are private companies.

Regardless of variety, polished rice is called white rice and is classified into various grades, namely 100% Grade A, B, and C. and broken 5%, 10%, 15%, 25%, 35%, 45% and 100% broken rice. Rice sold in supermarkets is of good quality, which is usually less than 10% broken. The products are packaged in 1 kg, 2 kg /5 kg and 10 kg translucent bags (PE laminated). As for Hom Mali rice, the percentage mixture of other varieties i.e. 5% for Mali rice grade A 15% for Grade B and 30% for grade C (Department of Internal Trade, MOC) are clearly indicated on the label. Small package rice has been made available in supermarkets for over a decade.

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**Figure 2 Marketing System of Rice in 1996.**

Source: Wiboonpongse and Chaovanapoonphol, 2001
The total sales value in 2001 was estimated at 7,000 million baht (www.businessthai.in.th, 2001). Presently, there are more than one hundred brands on record. The leading brands are Makoonkrong, (one of the first brands in the market), Hong Tong (CP Thairice), Benjarong (Asia Interrice) and Thanadsree. The market for packaged rice has been very competitive particularly among the leading brands. To expand their market share, firms heavily invest in processing and product improvement. Asia Interrice invested 100 million baht in a new plant and an additional 100 million baht in an integrated marketing package, and is watching the health concern consumers as a new market segment to tap (Krungteptragrit, July 10, 2004).

With the exception of 8 out of 109 brands, the packaged rice brands do not spend on advertising. Most brands used price promotion strategies because consumers do not exhibit brand loyalty, except those aimed at the premium quality product market who can pay high price. Other than Hom Mali rice, there are a few special rice products regarded as health food and command high prices, namely: Kao Mun Poo rice, Kao Daeng rice, and unpolished (brown) rice. Even though this market segment is still small, it is the segment where small and medium cooperatives are likely to have comparative advantage.

### 3.1.2 Emergence of hygienic vegetables and marketing systems

Hygienic agriculture could be seen as a first step towards a more ideal production for sustainable organic agriculture. The evolution of organic, and thus hygienic, agriculture is reviewed below.

As stated by Sreesanpagit (2002) in his study on organic agriculture in Thailand, organic agriculture is not new to Thai farmers. In spite of the proliferation of modern agriculture, traditional farms continue to exist and local indigenous knowledge of sustainable farming remains and continues to be a source of the revitalization of modern organic agriculture in Thailand today. The re-emergence of organic farming was due to the collapse of modern agriculture in the 1980’s. As conventional farm production was geared towards cash-crop production with heavy use of agrochemicals, farmers were exposed to market instability and health problems. The sharp declines in prices amidst increasingly production costs drove farmers to bankruptcy. With increasing incidents of health hazards to farmers as a result of agrochemical residue pollution, farmers and NGOs began to search for an alternative.

As organic agriculture has gained popularity in recent years, several organization specializing in organic agriculture have also emerged. Green Net (founded in 1993) is one of the key movers in this movement in Thailand and is into organic-conversion product development, and fair-trade marketing. Another important organization is the Organic Agriculture Certification Thailand (ACT) founded in 1995. The ACT provides professional organic certification services for all farm production, as well as processing and handling operations. The main objective of the ACT project is to promote production and export of rice, banana, pineapple, asparagus, and baby corn.

There was no direct policy pertaining to organic agriculture except for the first official recognition of sustainable agriculture stated in the 7th National Economic and Social Development Plan (1992-1996). Some sustainable agricultural projects incorporate organic agriculture as a component with integrated pest management. Subsequently, the 8th Plan provided a favorable policy environment for sustainable agriculture, and was continued into the 9th Plan (2002-2006). The present government policies on “Food Safety” and “World Kitchen”, have led to several large official projects involved in the promotion of sustainable and organic agriculture. One of the largest projects is the Natural Resources and Biodiversity Institute under the Ministry of Agriculture and Cooperatives. Organic agriculture is still in its
early stage of development, and the conversion from modern to organic agriculture is moving slowly. There is some support that goes to sustainable agriculture, which includes hygienic and integrated pest management products, including a project supported by the Danish government. In 2004, the Prime Minister issued a so-called “Prime Minister’s Direct Mission”, to all districts, to promote hygienic agricultural products. As a result, agricultural district officers are rushing to form farmers’ groups to carry out the mentioned program.

Most potential producers fall in the so-called “environmental friendly,” or “natural agriculture”, or “pesticide-free” categories. There are hundreds of producers under “hygienic” production more commonly known as “pesticide-safe” production. These types of farmers are basically conventional, as they allow the use of pesticides and chemical fertilizers, however, the products are supposed to contain pesticide residues lower than the maximum level set by Codex. The production is registered and certified by the Department of Agriculture (DOA) or the Department of Agricultural Extension (DOE). The products in this category are increasingly demanded by modern trade groceries where “organic products” are rarely available. Stages towards “organic products” vary by production practices. The above-mentioned products are under various titles and labels as shown in Table 5. It is important to note that there were no government projects, at the national level, that provide direct extension support for organic or sustainable agriculture (Sreesanpagit, 2002). However, there are local government agencies for organic and sustainable agriculture, especially for “pesticide safe” production, claiming otherwise.

In general, vegetables are becoming an important high value alternative to field crops in irrigated areas. The expansion of vegetable production area is devoted for processing-vegetables, mainly for export. As for fresh vegetables, the domestic market has experienced a gradual change in the pattern of distribution. The overall marketing system is simplified by the case of the Chiang Mai marketing system in Figure 3.
### Table 5 Comparison of non-organic labeling schemes in Thailand.

<table>
<thead>
<tr>
<th>Official title</th>
<th>Pesticide-safe vegetable</th>
<th>Pesticide-safe vegetable</th>
<th>ISO BKK</th>
<th>Hygienic Vegetable Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsible agency</strong></td>
<td>Department of Agriculture</td>
<td>Department of Agriculture Extension</td>
<td>Hygienic Office, Bangkok Administration</td>
<td>Medical Sciences Department</td>
</tr>
<tr>
<td><strong>Other titles</strong></td>
<td>Hygienic, Pesticide-safe</td>
<td>Nylon net vegetable Pesticide-safe Pesticide-free</td>
<td>Pesticide-safe, Pesticide-free</td>
<td>Pesticide-safe vegetable</td>
</tr>
<tr>
<td><strong>Commenced</strong></td>
<td>1983</td>
<td>1993</td>
<td>5 Oct 1999</td>
<td>17 Nov 1999</td>
</tr>
<tr>
<td><strong>Scope (as of May 2000)</strong></td>
<td>98 farms with 14,445 rai</td>
<td>3,614 farms with 5,220 rai</td>
<td>80 fresh vegetable markets in Bangkok</td>
<td>n.a.</td>
</tr>
<tr>
<td><strong>Labelled</strong></td>
<td>Product labelled as &quot;Pesticide-safe&quot;</td>
<td>Product labelled as &quot;Pesticide-safe&quot;</td>
<td>Market labelled as selling Pesticide-safe vegetables</td>
<td>Product labelled as packer has internal quality control system</td>
</tr>
<tr>
<td><strong>Standards</strong></td>
<td>Codex's MRL and Thai Public Health Ministry's MRL</td>
<td>No clear standard, sometimes refers to Good Agriculture practice</td>
<td>No clear standard</td>
<td>Internal quality control system</td>
</tr>
<tr>
<td><strong>Farm input</strong></td>
<td>Permits pesticide &amp; chemical fertilizers</td>
<td>Permits pesticide &amp; chemical fertilizers</td>
<td>Permits pesticide &amp; chemical fertilizers</td>
<td>Permits pesticide &amp; chemical fertilizers</td>
</tr>
<tr>
<td><strong>Inspection and certification</strong></td>
<td>Field inspection one time during application, no field inspection in subsequent year. Use chromatography to test residue. Ongoing monitoring at market</td>
<td>Farm registration and field visit but no inspection. Use GT test kit to check pesticide residues</td>
<td>Sampling of 5 kinds of vegetables from market and run residue test with GT test kit</td>
<td>Visit packing house and do inspection annually</td>
</tr>
<tr>
<td><strong>Comment</strong></td>
<td>Lab test takes a long time and very expensive</td>
<td>No inspection and certification. Result to GT test kit is unreliable</td>
<td>Sampling are much too small to have an acceptable results. Result to GT test kit is unreliable</td>
<td>Product labeling misleads consumers</td>
</tr>
</tbody>
</table>

Note: MRL minimum residue level

As shown in Figure 3, vegetables from all production areas are distributed to consumers inside and outside of Chiang Mai by 3 main channels; (Chiang Mai Provincial Office of Commerce, 1998):

1) Farmers selling directly to wholesalers, retailers and consumers, most products are vegetables but small quantities of them are sold.
2) Local merchants or assemblers buying products at farms and selling to provincial assemblers, wholesalers and retailers to consumers.
3) Provincial assemblers or wholesalers, with some of them having places in urban areas for assembling products, selling to Bangkok and other cities.

In Chiang Mai, Muang Mai is presently the only wholesale market for vegetables and fruits. The produce comes mainly from Chiang Mai and nearby provinces. However, trucks that deliver vegetables to other parts of the country also ship back the vegetables and fruits. Small proportions of vegetables are also available for retailing at this market.

It is important for wholesalers to have experience in their business. Liao et al. found out that some wholesalers who succeeded in their business took about 5-10 years to do so. Due to lack of marketing information about product quantities, which rapidly changes all the year, they need time to learn and get experience, and to increase efficiency in their business. This may be one type of entry barrier for newcomers in the market.
Generally, the wholesalers do their business with mainly 2-3 kinds of vegetables as major products, and with other kinds in smaller quantities. This is because they want to be known as specialists in their main crops, it is a way to avoid competition in the market, and to have specific customers. It is interesting to find that the market administrators want to keep the status of Muang Mai Market as a traditional local market for local people. They do not want to transform it into a modem market with good facilities that require buyers to pay more. Constructing commercial buildings for big wholesalers, while inducing small retailers to enter the market are their future plans.

On the part of traders, most of them are already satisfied with the scales of their business which for them are rather efficient. To increase business volume may mean high competition and may decrease efficiency. To them product standardization is most important, and chemical free vegetables for a better quality of life are needed in the future. However, both traders and administrators agreed that keeping all of the benefits for local people are their goals (Liao et al., 2001:266).

Theoretically, price is determined by demand and supply. In Muang Mai, buyers and sellers, through negotiation, determine market prices. Liao et al. (2001) found that wholesalers have the most powerful voice in determining the prices of vegetables. However, product pricing depends on seasonality, quality of products and marketing costs of wholesalers. In Muang Mai Market, the wholesalers try to set the same price levels, or small differences, and they keep their customers by different services.

On the supply side, the Royal Project Foundation may be the first organization promoting temperate vegetable production as opium replacement crops. Since these vegetables were not common to most consumers, they commanded higher prices, and likewise provide attractive margins. Thus, the project entered supermarkets during its earlier days of operations. The size of vegetables in supermarkets however expanded only recently and at a gradual level. Presently almost a hundred items of vegetable, in fresh and dry forms, are available in supermarkets, but only a small proportion of fresh vegetables are labeled as hygienic/residue-free and alike. This is in spite of the fact that modern supermarkets’ promotion strategies have placed high value on safe food.

Hygienic vegetable growers in general can be categorized into 3 groups on the basis of their production and marketing potentials (Gypmantasiri et al.,2000). Those with high marketing ability are either individuals or groups of growers who made contracts with buyers in Bangkok or in local markets (Chiang Mai). Seventy percent of their produce is delivered to 10 supermarkets in Chiang Mai. The second type of growers are those capable of production but not in searching for new markets. The last are those growing vegetable as a second crop after rice harvesting when the weather is favorable for vegetable production. Apparently production of these seasonal vegetables normally floods the market during February and thus prices fall to their troughs.

The prices of hygienic vegetables can be over three times that of conventionally grown vegetables, at both farm and retail markets. For example, farm prices of the most common kinds e.g. conventionally grown cabbage and water spinach were 1-5 baht/kg and 2 baht/kg. The prices of the hygienically produced same kinds were 10-15 and 6-7 baht/kg respectively. However, during the early stage of transition from conventional to hygienic production, growers could incur loss when labor is included as cost. For example, gross return of spinach was 30-80 baht/100 m² but net return after labor cost was 1344 baht. For water spinach net return after labor cost was positive i.e. 461 baht/100 m² (Wanesom, 2004). For the case of skilled growers, hygienic vegetables could provide net returns of 311-407 baht/100 m² per year and return to labor was 120 baht per day (Tong-ngan and Chaosilp, 1999) which is comparable to market wage rates.
3.1.3 Supplier's Entry to a Modern Trade Chain

Although, the modern trade chain is said to be open, a new vendor always finds it difficult to be able to make initial contracts with modern stores (hypermarket, or discount stores, or supermarket). While a typical procedure set by any modern trade store is rather a standard process, it is still more flexible to deal with Thai or local supermarkets. Standard processes usually start with a supplier approaching the headquarters with samples. When the headquarters finds that the products are in line with demand, and conform with the store’s specification, then the supplier is asked to submit sample products for quality inspection. Source origins and processes of obtaining suppliers need to be recorded for traceability requirements (Figure 4).

The third and forth steps are price negotiation. The supplier must make a price offer for the given quality and specification of products, which highly depend on cost of obtaining supply. However, price setting is said to be competitive since there are other suppliers.

![Figure 4 A Typical contract procedure](image)

Usually, prices can be negotiated. Suppliers can ask to maintain the price offer when their goods are of relatively better quality, and when they incurred higher costs than their competitors. Discount stores like Big C, however, always search for the lowest price in order to secure its discount price policy. The contract will be signed upon price agreements being reached. However, none of our interviewed vendors have a copy of their contracts. Only the stores hold the contract document. In the case of a local vendor who cannot supply large volumes for all branches of a given chain, he can make a contract via a local branch.

Once a vendor is contracted, his products are shipped to the buyers’ distribution center(s) (or DC) for quality and specification inspection. The inspection is done randomly in most cases. The vendor is responsible for shipping back rejected product, if any (Figure 5). For accepted products, DC manage distribution to various branches as planned and scheduled. The financial division takes over from there to prepare invoices, for which payment will be made in 15-60 days. However, the terms of payment are also negotiable.

The basic criteria for selecting a vendor of any modern trade store is similar, and they are as follows:

1. Reliability to deliver in time and regular frequency
2. Commercial volume of specified quality
3. Traceability of products
4. Price offered.

These criteria imply that vendors supplying to hypermarkets are medium to large scale. However, all discount stores, hypermarkets, and supermarkets also accept the local vendors supplying to only a few branches. This is partly out of social pressure, in that all foreign stores need to show concern and play “I am a part of our community”. Big C’s policy on paying
local tax becomes an advantage for promotion while Tesco Lotus displaying its patronage of local suppliers successfully attracts customers' attention. Paopongsakom (2004) found that high-end supermarkets have begun to procure directly from farmers groups. However the number of farmers are still very small, but increasing. In October 2004, TOPS announced its policy of direct procurement from small growers. In the North, the Royal Project foundation and large private firms are major local vendors for all modern trade chains for high quality chemical-residue free products.

![Diagram of supply chain procedure]

Almost 95% of produce carried by TOPS is certified either by Public Health (Food and Drug certification) or by the Ministry of Agriculture.

One of the vendors revealed that all modern retailers he contracts with, inspect his produce by checking the appearances or external physical quality, using experts' experience. One of the modern retailers' fresh food departments confirmed that staff are skilled and are able to judge the taste of a fruit from its look, however, they still strictly follow the specification list for each produce.

Since new buying usually carries inherent risks, modern trade inspects products more carefully. Besides conformity to specifications, new and differentiated products are likely to receive high considerations. Given same prices offered by vendors, most stores will accept both.

Modern trades strictly adhere to the conditions and stipulations in the contract, and enforce penalties when suppliers cannot deliver products accordingly. The details of contract terms and conditions are not disclosed, however, all store managers interviewed revealed that the terms and conditions vary on a case-to-case basis, depending on how much the buyers want the products. Large volume sales, e.g. good quality rice, which has a high turnover and consequently provides good margins, receives favorable terms from buyers.

### 3.1.4 Entrance Fees and Capital Requirements

Some hypermarkets demand vendors pay entrance fees (Tesco Lotus and Carrefour), demand reductions for special sales and events, charge advertising fees (TOPS), special product display fees, and selling own brand products next to similar branded name products. Both Tesco and Carrefour were found guilty in 2002 of malpractices.
Some chains require vendors to pay additional fees per product when the chains open a new branch. It could cost up to 10,000 baht per item per new branch. This fee adds to capital requirements and is a big obstacle for a small farmer to take direct participation in supplying his produce to a supermarket.

The Thai and local stores’ conditions for contract are relatively flexible. The degree of flexibility varies from store to store and place to place. Villa Market and Foodland Supermarkets, and the stand alone supermarkets, as well as Fiji UFM in Bangkok offer premium quality products to high income consumers. One of the new vendors into these markets found that it is a very difficult task to supply fresh produce to these chain stores, as the produce must be only of premium grade. Villa Market applies a consignment system, where the retail price is set at 100 - 150 % of the price paid to vendor (for mango). However, the store can reduce the price after each delivery if the store so decides to adjust the price. The vendor is expected to take part in promotion programs to introduce his own product(s). The vendor finds this risky and costly, since the logistics cost in Bangkok is high and he has to bear the risk of return of unsold products. However, he finds the store is well known and serves a large group of customers, which is likely to absorb large supply volumes.

At Foodland Supermarket, superior quality is the store’s comparative advantage. The store emphasises quality, such that inspection is conducted carefully for both external physical specification as well as internal factors (e.g. sweetness). Different stores have different policies; a vendor needs to consider which is more suitable and comparable to his capacity. While some vendors may find that it is most difficult to meet the specifications of Foodland, it is offset by the added prestige of having his products sold there. For Fuji UFM, while it offers the most desirable price, it requires the highest quality and high performance product displays arranged by suppliers.

For Thai stores, personal contact / relationship is considerably more important. However, there was a case where a foreign chain store accepted a particular product from a cooperative, in part due to the collaboration the store needs to make in response to local government agency requests.

3.2 Case Studies of Local Suppliers

Case 1: Full time supplier

Mr. Thee, a professional vegetable supplier in Chiang Mai is an assembler of chemically residue free (CRF) vegetables. He organizes 40 members in a district who grow temperate vegetables such as head lettuce, cos lettuce, Chinese cabbage, Japanese cucumber, and Japanese pumpkin. Mr. Thee delivers his produce to 3 buyers in Bangkok, two of whom are companies, and one an independent businessman. These buyers are all suppliers to TOPS and Lotus while one of them also exports fresh produce.

In order to obtain CRF vegetables, Mr. Thee conducts a residue test 20 days prior to harvesting. As trained, Mr. Thee designed sampling methods for his growers to collect sample vegetables and forward them to the collection center. Using GT-tests for residue, which if found, will cause the test to be repeated in the following week and the harvest may be postponed. To prevent growers from delivering non-member’s vegetables, Mr. Thee must visit growers’ plots before harvesting. This way he can estimate production and observe chemical applications. Mr. Thee is responsible for quality inspection, grading, dressing, and packaging. The three buyers in Bangkok do not provide him with exact product standards or grades, except for head lettuce which should weigh at least 300 grams per head. Mr. Thee grades vegetables by inspecting physical appearance based on his experience, which is well accepted by the buyers. After grading, vegetables are kept in cold storage owned by
the Mae Rim Agricultural District Officer. The storage period is normally 1 day and if more, is not longer than 3 days.

The contract between Mr. Thee and Bangkok suppliers is verbal - without the benefit of any document. They do business based on mutual trust. Payments are made 7 to 15 days after delivery. Prior to delivery, Mr. Thee must send information on quantity, price and quality of vegetables. His pricing is at cost plus 4-5 baht/kg. The cost includes local vegetable prices and handling costs. However, there are times when purchase price is pushed down to follow the prevailing market price.

A supplier like Mr. Thee must be responsible to his grower members in terms of financial, production, and price problems, as well as late payments. He has to pay his members promptly. The supply chain upstream part is a modified form of contract farming. His process started with calling for members, providing technical training (government agencies provide technical training), planning production schedules, selecting and controlling chemical usage, as well as selecting vegetables and varieties to meet market demand. Mr. Thee is in turn contracted by three buyers in Bangkok. From past experiences, he finds it advantageous to trade with these companies as the market is assured, and his revenue is reasonably certain.

Capital investment for this business was derived from 3 sources, i.e. a long-term loan (5 years) of 800,000 baht from the Bank of Agriculture and Agricultural Cooperative (BAAC) at a low interest rate of 12% per year. The second source was a small short term credit from the Residual-Free Vegetable Fund, and his own investment on necessary equipment and tools. Mr. Thee provides his members with farm manure and installed sprinklers. The costs of input supplies are deducted from gross revenue without charging for interest.

**Case 2: Grower cum Supplier**

Mr. Nik is a vegetable grower and the chairman of In-Net-Vegetable Growers' group (INVG) at Sarapee District of Chiang Mai Province. Sarapee has long been known for year-round production of commercial vegetables (kale, cabbage, bean, broccoli). Seventy two members of the group, from 8 villages, cultivate about 2 hectares and together produce 45 kg/day. As the chairman, Mr. Nik is responsible for production planning to meet expected market demand as well as marketing tasks.

The group members deliver vegetables to Mr. Nik at the price of 3 baht per bag of 300 grams. In this regard, he actually acts as buyer of the members' produce. The produce is delivered to 2 Rim Ping Supermarkets (local supermarket aiming for high income and foreign customers) at the price of 10 baht per bag. The supermarket deducts 25% from total sale value. In this supermarket, suppliers must take care of product shelving and displaying. The other outlets are shops in 2 wet markets and MCC shop (Faculty of Agriculture, Chiang Mai University shop opens daily for hygienic products).

Vegetables are inspected and tested for residuals. The Rim Ping Supermarket visits farmers' field each year and the produce are checked for freshness and cleanliness. For products of any new suppliers, the purchasing manager of Rim Ping pays particular attention to quality control. Fruits are inspected piece by piece and as such leads to a high rate of rejection. For freshness guarantees, Rim Ping will discard unsold vegetables daily. Thus a supplier like Mr. Nik must carefully determine the right quantity to deliver each day to avoid losses.

There is no specification or product standard, only grading. The produce is dressed and packed in a clear plastic bag. The Department of Agricultural Extension (DAE) grants the
labels on the bags and each member’s code is written for traceability. The members must be responsible when products are found to be contaminated with chemical residuals. However, no penalty is made except revenue reduction on the next delivery.

Mr. Nik did supply produce to Makro, but his contract was terminated as he could not deliver the pre-agreed quantity. Consequently, he was fined. He has been supplying Rim Ping for more than 15 years without any written contract.

Since the Rim Ping’s purchasing system is by consignment, Mr. Nik must subsume risk, and therefore tries his best on the product display as well as amount of supply each day. Two advantages of selling in the supermarkets are that the produce is in air-conditioned-rooms and keeps fresh for the whole day, and the certainty of market due to the sizable group of customers of these supermarket stores. Payment is made every 45 days, which is lengthy. Surprisingly, he has charged the same price per bag for the last 15 years, i.e. 10 baht/bag. His profit then varies from season to season due to the amount of production and supply. The earnings in the hot and the cold seasons are 15,000 and 10,000 baht/month, respectively. As a vegetable grower, Mr. Nik revealed that his production costs total to 10,830 baht.

Members of the INVG group pay no membership fees, but each pay for a share of 120 baht. This is used as initial funding and operating capital for the group. The most important role of this fund is to provide loans for those who need credit for input purchases. The group obtained a 70,000 baht loan from BAAC at the interest rate of 7% (a rate lower than that charged of Mr. Thee). The group also received substantial financial aid from the “Sub-district Administration Office” for 500,000 baht. This money was allocated to members for net-covered production houses. Mr. Nik took charge of the allocation of the fund. The INVG group members invested in water pumps and tube irrigation. In order to cultivate hygienic produce, the growers employ net-house and yellow-color glued paper to trap insects instead of using insecticide. The INVG group is one of the few farmers’ groups, which successfully keeps farm record book-keeping.

Case 3: Grower became Supplier

Mr. Boon was a vegetable grower just like the rest of his family. In 2000, he found vegetable prices to be undesirable as he faced difficulty in marketing his own and his members’ vegetables at a price higher than prevailing market prices, which were too low. He successfully approached Auchan and supplied the hypermarket with plastic-bag-packaged vegetables. The store inspected quality and freshness of vegetables and specified the quantity (0.5 kg/bag). The bag must have the label of the Department of Agriculture. But later, Mr. Boon used his own brand “Sarapee Fresh Vegetables” instead.

Presently, Mr. Boon has discontinued his production and collection from the group’s members, instead relying on vendors in Chiang Mai, who buy vegetables from the wholesale markets. However, the vegetables must be good enough to meet Big C’s (formerly Auchan) requirements. The minimum amount delivered to the hypermarket is 40 kg/day of various kinds of mainstream vegetables.

Auchan and Big C acquire products by purchasing system (not consignment). However, the store reserves the right to reject poor quality supplies. There was no entrance fee charged, but the store charges 1% of sales value. Payment is made every 7 days by Auchan, and every 15 days by Big C. Mr. Boon offered prices to Big C based on market price plus his desired profit margin.
Besides Big C, Mr. Boon also consigns with Rim Ping supermarket. He conforms to Rim Ping’s system in the same way as described in the case of Mr. Nik, but he is charged 28% of the total sales value. He delivers the vegetables to Big C at 8.00 a.m. and to Rim Ping at 9.00 a.m. In cases where he has large supply, a third outlet will be a shop at the wet market near Chiang Mai University, one of the shops Mr. Nik supplies as well. This particular shop charges 30% of total sales value to all suppliers, with the unsold produce returned to suppliers.

As to food safety, Mr. Boon’s supply is not tested for residue as either it is not his priority concern, or that he has high confidence on his suppliers. However, it is commonly believed that vegetables from wholesale markets are not up to safety standards. The price the middle agents charged usually him is market price, plus 1-2 baht/kg. Occasionally, the middle agents may buy produce from the Royal Project (the surplus or substandard) from the wholesale market and deliver to Mr. Boon.

Mr. Boon terminated his business with TOPS. According to him, he received orders for 2-3 kg. for each item, which is not cost efficient to manage. However, as mentioned earlier, TOPS’ branding strategy has focused on Safe Food as well as Freshness, and Mr. Boon’s supply seems unable to meet standards. In fact, another supplier of qualified hygienic vegetables also faces the same problem. As a full time vendor, he also seeks to make contracts with Carrefour and Tesco Lotus. But he found the terms of contract (e.g. consignment as of Carrefour) not attractive. As for Tesco, it is difficult for him to contact the headquarters in Bangkok. Obviously these reasons are reflective of obstacles for small farmers to deal directly with foreign modern trade stores (hypermarket or discount stores).

Case 4: Rice-Group Supplier

This case illustrates the possibility of a small miller’s participation in a modern trading system. Marketing rice to hypermarkets or discount stores appears to be only for large millers and trading companies, due to the bulkiness and size of business. Most existing products sold in the modern trade stores belong to national brands. Only one or two local brands are available in each of the large chain stores in their locations. Upon interviews with managers of local stores and Mr. Witt, the supplier, it was learned that it is the policies of Big C and Carrefour to support local producers as such local brands are considered, and contracted.

Mr. Witt is the leader of the Thirteenth Farmers’ Group of the San Kamphaeng Cooperative. The Group includes 50 members who produce field crops, fruits and paddy (of only 10 members). The leader also owned a small size rice mill (in 1966), which had grown into a medium size business in 1994. He then discontinued growing rice and milling became his main business. The members of the 13th group have their paddy milled there. During 1978-1994, Mr. Witt sold milled rice in sacks (100 kg) and by the litre for retailing, as commonly practiced by all millers. In 1994, he observed that rice sold in small packages (5 kg.) was becoming popular. National brands such as Maboon Krong rice was sold at the Agricultural Fair at Airport Plaza in Chiang Mai, and later was made available in the supermarkets there. Mr. Witt and his group then supplied bagged rice to the supermarkets at Airport Plaza (presently, TOPS supermarket), for 3 years. The group ceased because the store changed to bar codes and it will entail high cost to the group to comply. The second supermarket, which the groups marketing committee contracted, is the Rim Ping supermarket. Rim Ping bought rice in bags from the group with payment made 20 days after. The store’s mark-up is 25% of the price paid to the group. The group decided to terminate sales to this store due to payment defaults.
The Carrefour purchasing manager contacted the group in 2001. Here, suppliers are to pay 4,000 – 5,000 baht as entrance fees for each item of goods. The group sold 2 items to Carrefour i.e. 5% jasmine rice and white rice. The contract was later terminated because the stores suppressed the price, and it normally takes 2 months before any price adjustment can be made.

Auchan, and later on Big C’s, purchasing manager approached the group as recommended by the Chiang Mai’s Office of Commerce. The provincial agency assisted the group’s entrance at the initial stage. When Big C took over the business, the group’s contract was automatically transferred to Big C and no entrance fee was charged. However, there are several fees a supplier is to conform with namely,

(1) entrance fee of 5,000 baht (in 2000) and 10,000 baht in 2003 for any new item,
(2) a rebate at the rate of 3% of total sales value (each year)
(3) an annual fee of 10,000 baht
(4)10,000 baht per item when the company opens a new branch (this is subject to the company’s policy that a supplier needs to supply his products to all branches).

Presently, the group supplies Big C with 100% jasmine rice, 100% jasmine brown rice, 10% jasmine brown rice and white rice. The minimum quantity per delivery is 100 bags / item, varying according to orders. The group is required to deliver any amount as ordered directly to each of the other 2 branches in Chiang Rai and Lampang provinces. This often becomes uneconomical and leads to losses to the group. The group also has to replace any bags found defective or with bugs. The products are inspected regularly.

Payment is made every 60 days. The price margins the store sets differ from item to item, depending on the rate of turnover and the prevailing prices, both in Bangkok and at the local (rice mill) markets. Example price differentials are shown in Table 6.

<table>
<thead>
<tr>
<th>Product</th>
<th>Price received by the group (baht/bag)</th>
<th>Store selling price (baht/bag)</th>
<th>Margin (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% jasmine</td>
<td>110</td>
<td>120</td>
<td>9.00</td>
</tr>
<tr>
<td>100% brown jasmine</td>
<td>100</td>
<td>110</td>
<td>10.00</td>
</tr>
<tr>
<td>10% brown jasmine</td>
<td>80</td>
<td>95</td>
<td>18.75</td>
</tr>
<tr>
<td>White rice</td>
<td>53</td>
<td>56</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Note: 1 bag=5 kg

According to Mr. Witt, the group found that selling to hypermarkets is an effective way to promote the brand, because there is no other local brand in Big C. It brings more customers to the group, particularly institutional ones, hospitals and offices in the industrial estate in Lamphun. A disadvantage of selling to Big C is that the group makes very small margins and sometimes incurs losses due to transportation costs and the new branch fee. This finding is consistent to Paopongsakom (2004), that suppliers, in general complain that the margins are extremely low, and lower than other wholesaling alternatives. But they still do business with hypermarkets for 2 reasons; i.e. to maintain high volume of business and (2) hypermarkets always pay promptly.

The group expressed the difficulty to enter TOPs and Tesco Lotus because these two stores have contracts with large businesses, such as CP, which the group considers hard to compete with in terms of store space, especially for small businesses.

The modern retailing system of Thailand has been an increasingly significant sector. Apparently, it shared 26% of retail sales in 2004 when the market size reached 51,073 USD million. The food sector in general accounted for 60% of retail business, where it shares 80% in the modern trade stores.

Hypermarts have emerged as the major format in Thailand, even though the sector is highly competitive in terms of price and margin. The modern retail business (supermarkets and convenient stores and hypermarkets) had significant adverse impact on the traditional Mom and Pop grocery business. The traditional grocery stores were found inefficient due to lack of logistic management and lack of size-economies. This became a controversial issue, which led to zoning regulation imposed on large businesses. The regulations were issued such that stores whose size exceeds 3,000 square meters of retail space must locate at least 15 km from an urban center. As a result, large stores seek for mergers and acquisitions of small retailing formats such as convenience stores and supermarket formats. To further protect local retailing businesses, retailers suggested the government support the sector by reducing tax for SMEs, limit expansion of foreign joint venture retailing branches, providing loans to small businesses, setting price floors, and limit service hours of discount/hypermarkets. However, controlling foreign modern trade expansion will not help traditional stores. On the contrary, it will only increase economic rent to existing stores and large suppliers.

Foreign retailing businesses have brought in capital, knowledge, and efficient retailing management, which brought down the cost and prices to consumers, and have created employment as well. While these benefits are of value, there is a need to counter balance the market power of foreign investors so as to protect local businesses. In the same light, there is an urgent need for local businesses to make some adjustments, build their capacities, and equip themselves for the sake of their business and to benefit consumers who are the real beneficiaries of a competitive market as well.

On the demand side, Thai customers have been very positive to hypermarkets and supermarkets, and have been trained (via marketing stores’ promotion programs) to prefer modern shopping styles. With the growth of income, small family size, changing preferences, and being health concerned, Thai consumers increase their purchases of small-package rice and safe vegetable from modern stores. The consumers found it difficult to buy safe produce at the time and place of their convenience. They questioned why safe produce demands high prices since the cost of chemicals has been removed. Evidently, both conventional and safe produce appear side by side in modern stores, despite the stores announcements of safe food policies. The differences in both types of products are notable at retail as well as farm levels. However, the differences are insufficient to cover the implicit cost of labor especially in the case of new farms growing chemical free vegetables. It seems clear that marketing systems should be investigated in depth, so as to provide consumers as well as retailers with information on the supply side. This is confirmed by discussions at the national consultation meeting. Only prices which accurately reflect quality could encourage small producers to continue growing safe produce and supply to modem stores. Other than this, the benefit of joining modern supply chains only accrue to vendors and stores.

To enter the modern supply chain, a supplier needs to have substantial capital for 2 main purposes.

(1) to pay for entrance fee, stores’ new branch fee and promotion costs e.g. advertisement
(2) to maintain sufficient working capital since credit term is 15 days for vegetable and 60 days for rice.

Small vegetable growers groups did not find 15 days credit term is the major constraint in participating in the modern chain since they have other outlets for their products (This does not mean that they have no problem in marketing). They agreed with store managers that they are lacking management skill to overcome various problems in order to meet stores' requirements e.g. delivery of required quality and quantity as scheduled. Skills in logistic management and production planning seem important, as well as negotiation ability. Local government offers have not been involved in alleviating this problem. Fair Trade practice has been observed only for the benefit of stores, not the suppliers. As for small producers, the opportunity of participation is almost nil. The small producers of high quality product should seek to supply local or Thai specialty stores rather than discount/ hyper/ super markets.

To be optimistic, one may expect high quality rice and vegetable are distributed to various countries through the multinational companies' chain distribution systems as they indicated Thailand is chosen as a hub. There should be benefits to small producers as long as Fair-Trade marketing is guaranteed by companies, or supervised by government authority.

After the controversial issue of the modern retail system's adverse effect on traditional retail stores, the Ministry of Commerce initiated a so-called “Allied Retail Trade” (ART) Company in 2002. An ART-chain store is expected to operate efficiently in serving its community as a modern convenience store. As such, an ART should also carry community food products and employ similar strategies as “Lemon Farm”, located at Bangjak gasoline stations.

To enhance small / medium producers' direct participation in the supply chain of modern retailing stores, the following policies are recommended.

**Private Sector**

**A. Modern Chain Retailers**

1. The top priority is to encourage companies' management to contribute a small fraction, in the development of the producers' business, in network production-marketing in cooperation with government agencies.

2. Do away with entrance fee (a fee paid for being a store’s new supplier) (in any form), which is actually an illegal practice, e.g. 10,000 baht per item when a new store is opened.

3. Payment period to suppliers should be shortened from 30 to 15 days.

4. The practice of purchasing fresh produce such as vegetables on a consignment basis should be reviewed, as it may be unfair and not helping the small producers/suppliers.

5. These stores should provide supervision for logistics management as well as granting special financial conditions, at the initial stage, to small suppliers.
B. Farmer Groups

1. Technical assistance in terms of logistic management, production planning and sanitary certification are essential. Vegetable producers should form groups to work as a network, as mentioned above, for efficient technological transfer. As for rice, its logistic management should be improved.

2. As per premium quality products and specialty with regular production, producers (or groups) should consider supplying to Thai supermarkets e.g. Foodland and Villa Market in Bangkok or specialty stores in provincial market outlets e.g. Ban Suan Pak for hygienic vegetable or organic rice, or Rim Ping Supermarket (in Chiang Mai).

3. Hypermarket companies moving into the convenience store business also open opportunities for small local processors and packaged rice, and in the future should provide space for fresh produce.

4. While the companies are conditioning suppliers to deliver them a minimum volume (e.g. 40 kg of vegetable and 100 bags of rice per delivery), some of their branches ordered small uneconomical amounts. The suppliers are penalized when they fail to meet the conditions, but not vice versa. Thus, there is one-sidedness of Fair Trade business in practice.

Public policies

1. Thai government should effectively use anti-trust law to prevent adverse effects of modern trade system derived from monopsonistic / monopolistic power. In this respect, the market share of a company should be calculated as the sum of the company’s total value earn from all formats the company operates in the whole retailing system (i.e. hypermarket or supermarket or convenience store).

2. Encourage new ART stores to gain economy of scale of distribution function, and to counter balance the market power of large chains.

3. Encourage traditional grocery stores in appropriate locations to carry fresh produce i.e. adopting the concept of Delhaize’s Food Lion i.e. “shopping at a wet market near home.”

4. Promote selling stands of safe produce in every wet market.

5. The government should support and provide tax privileges for companies involved in small producers business development.

6. Local officers should be encouraged to coordinate the network, such that product flows are coordinated and planned to a high degree of precision.

7. The existing services of sanitary certification should be extended at lower cost.
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