

Global trends in Fresh Produce Markets

**Part of the NAMC Section 7 Section Committee Investigation on Fresh Produce Marketing in
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Introduction

This report on Global trends in Fresh Produce Markets constitutes the first of 2 commissioned reports under the Section 7 Section Committee Investigation on Fresh Produce Marketing in South Africa.

1.1 Purpose

This research provides an analysis and description of the recent global trends in the fresh produce industry. These will serve to inform the NAMC Section 7 Section Committee Investigation on Fresh Produce Marketing and will provide the global perspective to the subject.

The study investigates and provides comprehensive information on global trends and international best practice with regard to:

- The prevailing marketing system (types of systems.)
- Management and ownership of FPM
- Location of FPM
- Infrastructure (ownership, investment in, maintenance of etc.)
- Legislative framework in terms of which FPM operate
- Price formation and price discovery on FPM
- Value adding
- Food safety and traceability
- Market Access (for producers, small role-players etc.)
- Risk management
- Logistics and distribution of fresh produce
- Market share vis-à-vis other marketing channels

The above investigation was limited to certain selected countries and regions.

1.2 Methods

The research was performed by means of desktop research as well as key informant interviews. The desktop research will include:

- A review of literature on fresh produce industry;
- An analysis of international data and trends in fresh produce marketing
- International consumption and trade in fresh produce
- Investigation of the role of FPM in the broader agricultural environment
- The role, structure, conduct and performance of FPM and satellite markets internationally

The research will also draw on research conducted in similar previous Absa Chair studies.

1.3 Scope & Report Structure

This report is structured to review the development and structure of fresh produce markets wholesale in four regions through a review of markets in their constituent nine countries. These include Western European countries including the United Kingdom (UK), France and Spain followed by an Eastern European country namely Poland; the South American group Brazil and Mexico as well as South East Asian countries including Vietnam and Thailand. Although country specific information/data is given the emphasis was placed on reflecting regional rather than national trends.

South America

2 Mexico

2.1 Prevailing marketing system

Mexican consumers are presented with a number of options for their fresh produce needs. The traditional markets for fresh produce are the enclosed “public markets” (*mercados públicos* in Spanish) and open-air *tianguis*. In the Mexican context, the term “public market” generally refers to a permanent, enclosed facility, built with state or local government assistance and continues to be managed by local government authorities. These two traditional forms of fresh produce markets have since the 1980s been facing growing competition from modern supermarkets and mass-merchandise chains. (USDA, 2002)

Generally groups of small independent merchants obtain individual kiosks in the public markets on a lease basis to sell their wares. The kiosks are lined up next to each other and usually numbering in the hundreds. The layouts and arrangement of types of produce vary depending on the public market in question, but kiosks are often divided along merchandise lines. The number of tenants at an individual market varies considerably from 50-60 in one facility to nearly 4000 tenants.

A survey conducted in 1987 of public market tenants by Distrito Federal government officials, revealed that 28 percent of the tenants sold fruits and vegetables, 7 percent sold various types of fresh meat and seafood products, 7 percent sold other grocery items (including dairy products and cured meats), 12 percent sold prepared food, 14 percent sold ready-to wear clothing, and 33 percent sold other items. (USDA, 2002)

Similar in format to enclosed public markets are the *tianguis*. They are temporary open-air market facilities erected at street intersections in urban neighbourhoods. Tianguis consist of groups of small merchants, who are often unregulated by local government authorities, sell their wares from small outdoor stands that are temporary. The stands can easily be disassembled and transported from one location to another. Many tianguis move from one urban neighbourhood to another on a weekly cycle. The number of vendors who sell merchandise at a particular *tianguis* varies from season to season.

While the number of open markets is increasing with rising per capita incomes, urbanization, and foreign and domestic investment, there are a number of transformations occurring in the Mexican fresh fruit and vegetable marketing system. There are a number of new entrants and new forces which traditional marketing channels have to adapt to. The past decade has seen liberalization, which has presented participants in fresh produce marketing with challenges and opportunities. Retail chain stores from the United States and Europe such as Wal-Mart, Price Club and others have entered the Mexican market often in partnership with existing Mexican supermarket chains.

These new entrants have brought with them management and marketing practices developed in other markets and are changing the way perishable items reach consumers in Mexico. Consumers have enthusiastically received the unprecedented services and quality provided by the newly arriving stores, allowing them a very successful introduction. The competition has forced local stores to enhance their services and efficiency, generating a chain reaction of improved service and rationalization of food retailing. The success of the supermarket/ convenience chain store format has generated a remarkable expansion of retail outlets and selling areas in Mexico. Traditional supermarket chains that used to target only high-income urban households broadened their market horizon to include medium and low-income neighbourhoods and expansion into smaller towns in the late 1990s.

The market environment is changing. Small, specialized shops and stalls—corner stores, public markets, and street stalls—that procure produce from government-built central wholesale markets still account for a big portion of total produce purchases. But things are changing rapidly, especially in the northern Mexican states. The supermarket chain format embodies economies of scale, improved quality standards, cold chain management, and centralized inventory optimisation. Supermarkets also attempt to purchase produce directly from producing regions, bypassing, and thus threatening, the dominant role of traditional wholesale markets.

2.2 Management and ownership of FPM

Generally wholesale markets are owned and managed by the local authorities and their staff as mentioned above.

2.3 Location of FPM

Public markets are abundant in the urban neighbourhoods in Mexico. The USDA (2002) estimates that there are more than 2,600 in operation throughout the country. About 40 percent of these markets are located in the densely populated states of the *Distrito Federal* (D.F.), *Estado de México*, and *Jalisco*, which are Mexico's larger metropolitan areas.

2.4 Infrastructure

The Mexican marketplace does not have much access to less-than-truckload shipments. The wholesale market has seen significant investment into cold storage. Approximately 90 percent of the traders have access to refrigerated storage.

At Mexico City's Central de Abasto there is approximately 1,500 metric tons of refrigerated storage capacity, representing almost 10 percent of total warehouse space at the central wholesale market. The last update in Mexico's storage infrastructure is the construction of a one million square foot intermodal facility in San Luis Potosi, a city centrally located in the Republic. The plan is to make

San Luis Potosi a warehouse and distribution centre for the country. (Batista J et.al, 2000)

2.5 Legislative framework

The regulation of the fresh produce supply chain in Mexico is divided between two ministries: the Ministry of Agriculture (SAGAR) responsible for production agriculture, and the Ministry of Commerce (SECOFI) responsible for agricultural marketing from the farmgate to the consumer. SECOFI has been working with the Mexican Supermarket Trade Association (ANTAD), to develop industry wide standards for produce grades, cartons and packages.

2.6 Price formation and Price Discovery on FPM

SECOFI is establishing information networks to better integrate state-level and regional markets. The central market of Mexico City plays a large role in matching supply and demand among provincial markets

Produce merchants at public markets and *tianguis* often have different prices for products with different sizes, maturity, or cosmetic appearance. Because of this, customers generally have the perception that they receive better value for their money at traditional markets because they are charged a specific price for a specific quality of merchandise. Previous surveys have indicated that supermarkets typically charge the same price for the same variety of commodity, regardless of size, maturity, or cosmetic appearance.

Wholesale market merchants' prices are very competitive and not significantly different from those of *tianguis* merchants who have little or no overhead expenses, which wholesale market merchants have to face such as payment for leasing the stall and other local authority charges.

2.7 Value Addition

There has been investments in modern technologies and know-how regarding supply chain management, procurement arrangements, stock optimisation, quality standard control, cold storage maintenance, product handling, shelf life preservation and consumer services.

2.8 Food Safety and Traceability

Supermarkets still rely on wholesalers in Mexico, and they have induced change in the wholesale sector with regards to food safety and hygiene. They impose private quality and safety standards, especially in fruit and vegetable chains, as well to a certain extent in dairy and meat chains. These standards relate to the physical aspects of the products, as well as phytosanitary conditions of the produce. Some small farmers find it very difficult to meet these phytosanitary and animal health standards such as the private standards for produce, formulated and implemented by EUREP

(Euro-Retailer Produce Working Group), an association of the leading supermarket chains in Europe (F.A.O. 2003).

2.9 Market Access

Many of the problems that small producers face in a transition to fruit and vegetable production lie in the marketing system. Most of the efforts by the Mexican government to assist small producers have been directed at production. Large proportions of the expansion of fruit production has been subsidized with very little attention being paid to marketing.

A number of institutions are now supporting the formation of marketing cooperatives. The Ministry of Agriculture is now also developing programs to help smaller farmers adapt to these new demands of the retail sector however, equipment required to efficiently sort and pack fresh produce is often very expensive. Smaller farmers and traders do not, individually, produce or market enough produce to justify such investments. As a result the smaller participants in the market are at an increasing disadvantage as the demand for quality expands. Unlike in the U.S., marketing cooperatives are not widespread in Mexico, nor has incorporation been common among smaller farms.

Market access to wholesale markets is relatively easy for smallholder producers although they need to be delivering huge volumes since the Mexican marketplace does not have much access to less-than-truckload shipments. The requirements are less stringent in terms of quality, grading, packaging etc. Wholesalers import approximately 85 percent of the fresh fruit.

Access into the supermarket industry is however very difficult and only a few well-organized producers are able to directly supply Mexican Supermarkets sometimes collectively through marketing organisations. There is scope however for small producers to supply supermarkets since supermarket chains in Mexico are increasingly attempting to streamline procurement by receiving produce deliveries at their own regional distribution centres, rather than depending entirely on deliveries of produce from local wholesalers. There is also stiff competition from the United States exporters to supply Mexican supermarkets with fresh produce.

2.10 Risk management

The major challenges facing Mexico's fresh produce distribution system brought on by the rapid expansion of the supermarket format include:

- The lack of a common marketing nomenclature and clearly enforceable quality standards;
- Insufficient cold storage availability and unreliable cold transportation management;
- Inadequacy of some rural roads;
- Limited services and assembly capacity for produce in rural areas; and
- Poor development of grower marketing associations.

Small producers need to organize to reduce market risk: There are scale advantages in fresh fruit and vegetable production, as larger producers (or groups of producers) can often negotiate

better prices or can be in the market more days of the year, thereby reducing their vulnerability to price fluctuations. They also have established contacts with wholesalers in Mexico's largest markets, while small producers have difficulty breaking into these markets.

Contracting of farmers to produce fruits and vegetables for processing provides an alternative that reduces market risk. Most of these contracts are at fixed prices, since processed food markets are less variable. Thus, the risks faced by producers are basically production risks related to climate and pest problems.

Scale advantages in marketing are especially important in export markets. The same problems of opportunism exist with U.S. brokers as with Mexican intermediaries, and the small producer by himself has little defence against such risks. Many producers of varying sizes in Mexico complain of failed payments, and unfairly rejected produce by intermediaries. The brokerage system can be improved through public policy, but greater scale achieved through cooperation among producers will also provide the needed countervailing power. Finding honest and attentive marketing agents is difficult but of paramount importance.

In Mexico, business is often conducted with a handshake; however, commercial transactions over long distances make one's word of honour vulnerable to opportunism. The use of formal contracts will likely expand further into the countryside.

2.11 Logistics and Distribution

Most small producers do not have trucks of sufficient size to transport products to wholesale markets. In many areas, indigenous fruit producers bring small quantities of produce in "taxis" to local markets, where they are sold to middlemen with trucks. The middlemen then deliver to the wholesale markets. The profitability of the middlemen is dependent on perishability and market price risks. Studies of price differentials have indicated that if farmers can get their produce to the wholesale markets directly on a regular basis their incomes would be raised significantly. Prices are generally two to three times higher if farmers deliver their produce directly.

2.12 Market share vis-à-vis other marketing channels

Many structural changes are occurring in the Mexican food distribution system. Supermarket chains are rapidly gaining market share. Despite these developments traditional markets are still more popular with Mexican consumers than the chain stores.

Table 2.1 below shows the store format preferences for fresh fruit and vegetables in Mexico between 1993 and 1998. Most Mexican consumers in 1998 were purchasing produce in stall-like shops in municipal markets (47 percent) or from tianguis (11 percent).

Table 2.1: Store preferences of Mexican consumers for fresh fruit & vegetables, 1993-1998 (%)

Year	Covered Public Market	Open air market (<i>tianguis</i>)	Self Service Supermarket	Corner/convenience Store	Speciality store
1993	25	38	26	2	9
1995	39	23	20	4	9
1996	41	20	23	2	8
1998	47	11	21	4	7

Numbers may not add up to 100 percent because hypermarkets and other formats were not included.

Sources: Food Marketing Institute, Washington, DC, 1998. Batista J.C. et.al (2000) and USDA (2002)

Direct procurement by retail chains is expanding and the share of produce flowing through central wholesale markets is expected to decline. Developments, which took place in the United States market when it underwent similar developments, show that Mexico is entering a stage in which the wholesale market share will decline rapidly. However, the absolute volume of wholesale shipments may not fall because of increasing consumption in fresh produce.

3 Brazil

3.1 Prevailing marketing system

The traditional fresh produce market comprises of a primarily physical market channel served by a large number of geographically-dispersed small farmers; a large number of wholesalers who are based in the public wholesale markets and work in close proximity to one another and are often inclined to specialize their trade in their in particular products; and many small traditional retailers including open-air market vendors, corner markets, small and medium-sized supermarkets and food service firms; as shown in Figure 3.1 below which uses São Paulo as an example.

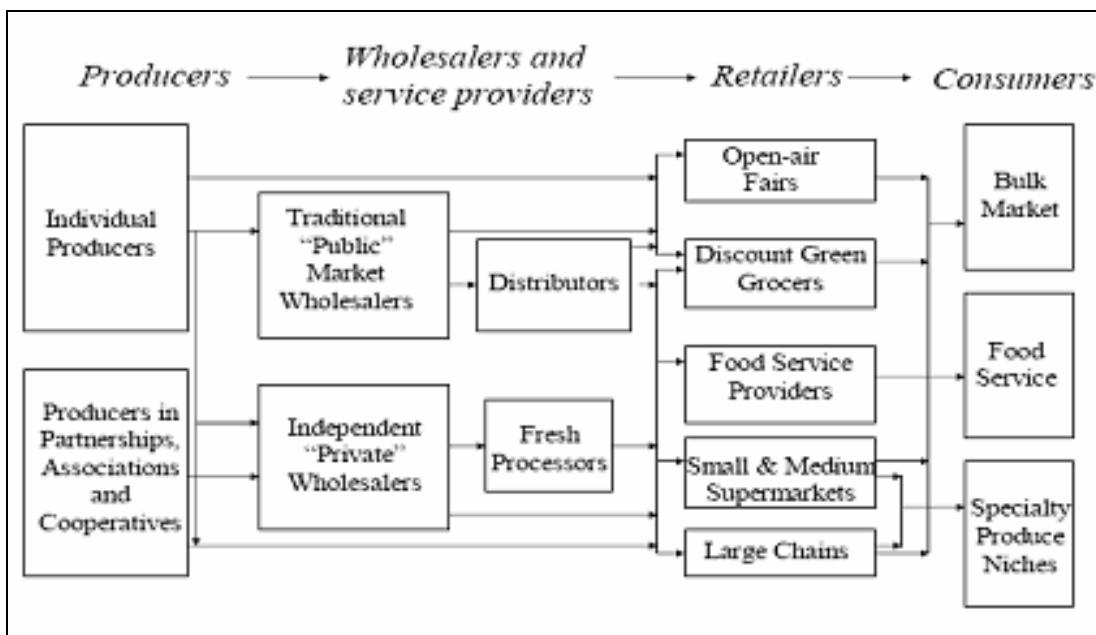


Figure 3.1: Sao Paulo Fresh Produce Market Flows

Source: Mainville, 2004

Although government constructed centralized facilities for fresh produce procurement, in recent times procurement has shifted away from the public wholesale markets towards direct purchases from production regions and instituted more formal governance of relationships with suppliers (Farina and Machado, 1999). Firms are able to reduce the marginal search costs of produce acquisition as the volumes of throughput grow through subsequent economies of scale even though these investments involve high startup costs (Mainville, 2004).

The change in procurement strategies has led to a proliferation in the number of specialized wholesalers, working independently of the traditional wholesale markets and based in these areas. These wholesalers are known as classifiers and supply retailers with differentiated products and services at competitive prices. Although some wholesalers in the traditional wholesale market have their own classifying plants, classifiers differ from the former in that they offer a quality

differentiated product that moves directly from the growing areas to the retailers without having to go through the wholesale market (Mainville, 2004).

Despite the afore mentioned changes, the public wholesale market remains an important source of fresh produce for smaller buyers, which are small and medium-sized supermarkets, open-air fair vendors, and restaurants, discount green grocers to some extent. It also complements large retail chains' purchases of produce from the growing areas and plays an increasingly marginal role in the provision of highly perishable items (Mainville, 2004).

3.2 Location of FPM

São Paulo produces more than 25% of Brazil's fresh produce. The state is also responsible for more than 20% of its consumption, which is concentrated in metropolitan São Paulo, which is a city of more than 18 million people. It has more than 60 000 vegetable growers, working on an average of slightly less than five hectares each. The small farmers who work on the small plots of land in the "green belt" surrounding the city grow most fresh produce consumed in São Paulo (Mainville, 2004).

3.3 Infrastructure

There is a general lack of proper infrastructure and this has delayed development. The level of technological sophistication is relatively low, as is evidenced by the fact that few farmers use greenhouses or other means to protect their crops from weather fluctuations, which increases variations in the quality and quantity of produce that they grow and contributes to the image of Brazil as an unreliable fresh produce marketer (NAMC,2002) .

The infrastructure linking producers to buyers is also weak; the poor roads and non-specialized vehicles and shipping containers lead to high rates of waste and more than 30% of many vegetables are spoiled between the farm and retail shelf. This is aggravated by the distance from the different production areas and the concentrated population areas which have determined the development of the main marketing model: the cooperative and the major wholesale markets.

Even communication is difficult as a result of information asymmetries caused by the lack of transparency between the fresh produce wholesalers and the suppliers and buyers and facilitated tacit collusion and oligopsonistic trade practices. The growers' small scales and geographic dispersion has left them dependent on wholesalers for the performance of marketing functions and they little access to information on current market conditions. The absence of central grades and standards means that producers are not rewarded for producing high quality produce, and this encourages focus on increasing the quantity of production regardless of quality (Mainville, 2004).

The strong domestic market substantially contributes to the image of Brazil as an unreliable fresh produce exporter because when demand is strong on the local market there is a tendency to neglect exports. (NAMC,2002)

3.4 Legislative framework

Currently, the public marketing chain is associated with government provision of both institutional and physical infrastructure. Government influence is evident in grades and standards, market information and even in buildings. Reducing the emphasis on government's role in institutions that are relevant to both public and private marketing channels might bring about a softening of this detrimental public/private distinction. (Mainville, 2004).

3.5 Price formation and discovery

The accessibility and large numbers of buyers and sellers in wholesale markets make them important sources of market information on prices and the movement of products and thus enhance transparency and competition. (Mainville, 2004).

3.6 Value adding

The recent economic stabilization led to growth in consumer purchasing power across all income sectors, and increased both consumer demand for produce, as well as consumer preferences which have seen a wide range of attributes, such as convenience, perceived healthfulness, and better organoleptic quality become more important. This led to the emergence of markets for "specialty" product lines like organic, fresh-processed, hydroponic, and pre-packaged produce. (Mainville, 2004).

"Follower" retailers strategically responded to the change in the market conditions by shifting merchandising and procurement strategies. This has resulted in an increase in their participation in emerging niches for specialty products such as pre-packaged, fresh-cut, organic, and hydroponic produce. Although specialty produce markets represent a small share of fresh produce sales, they are among the most dynamic markets and show substantially higher growth rates among wealthier clientele who are willing to pay for the extra convenience, healthfulness, and quality that specialty produce is perceived to offer relative to conventionally-produced produce (Mainville, 2004).

It has been noted that classifiers also label the produce more comprehensively with information on the absolute size, colour and level of defects than the wholesale market where size is labelled on a relative basis and other precise quality parameters are absent. In this way they add value to their produce (Mainville, 2004).

3.7 Food safety and traceability

Brazil has two basic standards of which the Brazilian Program for Improved Standards and Packaging (BPISP) is *de jure*. This means that compliance is required by law however it shows very low rates of adoption by either buyers or suppliers of fresh produce because it is not enforced. The other is the default regime which is used by a wide range of retail firms and suppliers and is the *de facto* regime. The latter regime is inadequate for the provision of produce of consistent

quality because it is not formally defined and the assignment of grades by buyers and sellers is done each day based on relative standards and not on absolute standards. Conversely, the BPISP uses absolute standards based on a specific size and quality and the parameters of the produce must fall into to a certain range to qualify for each grade (Mainville, 2004).

Although public food safety standards for fresh-cut produce exist at municipal and national levels, the low levels of financial and human resources ensure a very low enforcement capacity. The municipal department for food inspection, known as SEMAB, had, as of 2000, not closed a single food contamination case (SEMAB 2001) and similarly, ANVISA, which established current food safety legislation at the national level in 2001 also lacked capacity to effectively enforce their mandate (Mainville, 2004).

As a result of the weak enforcement capacity for public food safety standards, retailers are left with the option of either relying on suppliers' assurances of product safety, or creating and administering their own private standards for suppliers to follow which is a very high cost activity. Generally, any fresh-cut produce that is explicitly marketed as 'safe for immediate consumption' is always marketed under the brand of the supplier which markedly reduces, but does not eliminate, the retailers' exposure to liability in the case of damaged products because under Brazil's legislative system the onus for damaged products lies largely with the supplier, unless it can be demonstrated that the product's safety was compromised subsequent to supply (Mainville, 2004).

3.8 Market Access

A slight resurgence, in terms of both numbers and market share, relative to large chains, of smaller players in food retail markets has led to the existence of limited optimism over their prospects (A.C. Nielsen 2001). However, the establishment of supply chain networks presents a barrier to entry in the market of small producers, because of the large fixed costs of establishing the physical infrastructure, and because they have a minimum efficient scale of operation (de Souza et al. nd)).

3.9 Risk management

The risk inherent in these transactions is further increased by a weak judicial system and a general lack of cultural limits to opportunistic behaviour and this makes it difficult for a buyer or seller who has been cheated to remedy these grievances or recover the loss. Many strategies for the management of relationships with suppliers are designed to minimize the risks and costs of buying fresh produce and a combination of these factors with the difficult supply environment, create further risk for both suppliers and buyers (Mainville, 2004).

3.10 Logistics and distribution

In most cases, distributors are small firms who purchase produce, typically from the wholesale market, and re-distribute it among retailers with whom they have contracts for their services. Wholesalers are based at the traditional wholesale market. There has been an overall trend of

shifting purchases from the wholesale market toward growers. However, it should be noted that open-air vendors have shown the least tendency towards changing their sources of fresh produce. (Mainville, 2004).

3.11 Market shares

Large retailers tend to lag in capturing market share in the fresh produce sector and their participation in this sector is about two-thirds of their overall participation in agrifood markets at country level because fresh produce is generally considered a small farmer-friendly sector due to both its high-value for volume produced and high labour and management-intensity of production. (Mainville, 2004).

The market segmentation due to the emergence of niches for “specialty” produce is a major feature of the current market environment. In effect, the public market plays an inconsequential role in trade in the very dynamic and quickly expanding markets for specialized produce items as these products have lean markets, which require tight coordination between buyers and sellers, and private supply channels predominate for these products (Mainville, 2004).

However, although their role in the trade of some products is very minimal, the public market can be expected to continue to play an important role in transactions of some goods, particularly those that have broader geographic markets and permit greater competition; for products in which institutions such as grades and standards are in place and well employed thereby permitting low cost transactions; and in markets for which supply and demand is less predictable but which are relatively minor commodities making high cost coordination efforts inefficient (Mainville, 2004).

South East Asia

4 Vietnam

4.1 Prevailing marketing system

The dominant marketing chain in Vietnamese cities is the unstructured and unregulated wholesalers catering for retail markets and hawkers that form the major part of the fresh food market structure. Vietnamese consumers prefer to buy their fresh foods in public “wet” street markets or from street hawkers. Despite the growing market share of supermarket chains in South East Asian cities, fresh food purchases are still done in wet retail markets and Vietnam is no different as wet markets are still very competitive in terms of price and freshness (Cadilhon, 2003). However, there is evidence of coexisting forms of different marketing channels rather than substitution of one by the other. The government program to regulate the market by banning old wholesale markets and through recent frequent raids of hawkers in wet markets has generally contributed positively to the growth of modern retailers in Vietnam (Tam, 2004).

4.2 Management and ownership of FPM's

Previously, wholesale markets were under state control as government built and regulated their activities. However, the past 12 years have seen the declining share of state involvement in the retail sector (Tam, 2004).

4.3 Location of FPM's

To better address food quality concerns and as part of urban infrastructure upgrading the government initiated a program to move all wholesale market in the city centres to new facilities at the outskirts of the city. The market restructuring program was adopted by the authority in April of 2003 to move ten old wholesale markets located in the heart of Ho Chi Minh City (HCMC) to three new facilities at the city's outskirts; renovate the old retail market system and eradicate unofficial street markets. However, employment in food trade has declined as a result of this program. (Tam, 2004).

4.4 Infrastructure

The government's efforts at liberalising the economy have enabled an influx of private enterprises and foreign direct investment into agricultural marketing and food distribution in urban areas (Tam, 2004). The Food and Agriculture Organisation of the United Nations (FAO) also conducted and sponsored several studies (Quang 1999; Yasmeen 2001) to make city authorities more conscious and active in the resolution of problems in food distribution and marketing systems into their towns. (Cadilhon, 2003). However, despite these efforts, market information is not transparent and no prices can be seen in any of the wholesale markets and waste is believed to be 30-50% due to poor timing of planting or harvest and no cool chain (Cadilhon, 2003).

The three vegetable wholesale markets are Cau Muoi, Mai Xuan Thuong and Tan Xuan. The Cau muoi market had been the main distributor of Dalat products since 1946. These markets had very poor infrastructures, causing traffic congestion when they operate at nights and posing environmental and food safety hazards as well. (Tam, 2004).

4.5 Legislative framework

Vietnam is still a highly policed and controlled state where the People's Committees oversee their designated areas for the State and the communist party. This is clear in Ho Chi Minh City where local authorities, have numerous projects to build wholesale markets in and around the city, to solve the alleged problems in the marketing system of fresh produce. These projects have been planned without consultation with traders or their suppliers and customers yet they could have major impacts on the lives of thousands of people within and outside of the city (Cadilhon, 2003).

However, although the rules and laws are important constraints, informal constraints may also explain some aspects of economic activities in Vietnam. Cultural and social factors form part of the latter institutions but have been overlooked by fresh food marketing studies in South East Asia although they are recognised as determinant factors in other sub-sectors. In the food markets of South East Asian countries, trust is an important component of transactions and contracts between parties to secure transactions are rare and although the courts exist, they are powerless to enforce existing agreements or are mistrusted (Cadilhon, 2003).

4.6 Price formation and discovery

Terminal wholesale markets are seen as an ideal environment for efficient exchanges between buyers and sellers and the concentration of traders is believed to satisfy the conditions for establishing a fair price for agricultural goods in a competitive environment due to the direct contact between the buyers and sellers. (Cadilhon, 2003). In these traditional wholesale markets, relationship marketing, as opposed to adversarial spot transactions, has been found to be prevalent (Cadilhon et al. 2003).

There is direct communication between collectors and traders on a daily basis, focusing mainly on discussions on previous prices, planning product orders for subsequent deliveries, providing updates on urban markets and informing each other on production situations in the locality. In times of abundant supply periods, collectors are usually price takers as prices are based on the wholesalers' previous day trading average. During limited supply on the other hand, the collectors have more power on pricing. (Tam, 2004).

4.7 Value adding

Although no information is available for the specific processes undertaken at wet markets, it is assumed that minimal value addition processes are performed such as packaging from the bulk containers to smaller consumer-friendly packets because it has been ascertained that these markets are considered to be more convenient to consumers.

4.8 Food safety and traceability

The increase of food poisoning incidents in Vietnam over the period of 1994 to 1997 drew government's attention and led to efforts for quality control over crop production, such as the hygienic vegetable program which was first endorsed by HCMC authority in 1996 and further strengthened in 2002. The pilot programs on hygienic vegetable technology started both in HCMC and Hanoi in 1998. The European Union (EU) also recently invested in a technical assistance project for hygienic vegetable production in Vietnam. An expansion of the market outlets was an important component of these programs. Modern distribution chains are considered appropriate outlets for these hygienic food products. (Tam, 2004).

4.9 Market Access

A small farmer in Vietnam could not individually be integrated into a modern supply chain unless he or she is a member of an organization such as a farmer group or an agricultural co-operative. Most members of an agricultural organization are often male as female traders are mostly involved in traditional markets (Tam, 2004).

4.10 Risk management

In a bid to reduce risks and in an effort to reduce transaction costs, stakeholders along specialized networks have created marketing networks based on trust, culture and sociological norms. (Cadilhon, 2003).

4.11 Logistics and distribution

The country's distribution system has evidenced some restructuring, as evidenced by the reduction of brokers in the distribution network to cut costs while sources of supply have reportedly increased (Tam, 2004). Strong market segmentation has been encountered among vegetable wholesalers in one of the informal markets in Hanoi, Vietnam, as stakeholder networks have been constructed around a particular product leading to specialisation of stakeholders in one food supply chain. On the other hand, relationships between wholesalers supplying different products are infrequent. (Cadilhon, 2003).

The lack of storage facilities at wholesale markets further necessitates the need for specialized networks and requires that the wholesaler maintain volume levels that will surely be sold at the end of the day. This means that a wholesaler must build a loyal clientele and estimate the volumes required by his loyal retailer clients on a daily basis and if the demand changes the latter need to inform the wholesaler otherwise. These loyal retailers usually order in advance and are assured of the quality and quantity they desire at reasonable prices. A few days credit is usually provided by the wholesalers (Tam, 2004).

4.12 Market shares

According to Quang, (1999), about 80% of fruits and vegetables are purchased in informal street markets and from hawkers. Independent specialised fresh food shops that buy from wholesalers are rare and integrated retailers are starting to appear in the fresh food business for niche products

such as “safe vegetables”. There is still a need for wholesalers, due to the growing institutional catering industry, which depends on wholesale markets for their supply of fresh food (Cadilhon, 2003).

5 Thailand

5.1 Prevailing marketing system

Similar to the situation in Vietnam, the traditional market system is characterised by the strong influence of small street markets, known as wet markets, and many agents trading fresh produce mostly for local consumption but also for export purposes (NAMC, 2002) As shown in Figure 5.1 below, vegetables from all production areas are distributed to consumers inside and outside of Chiang Mai by three main channels:

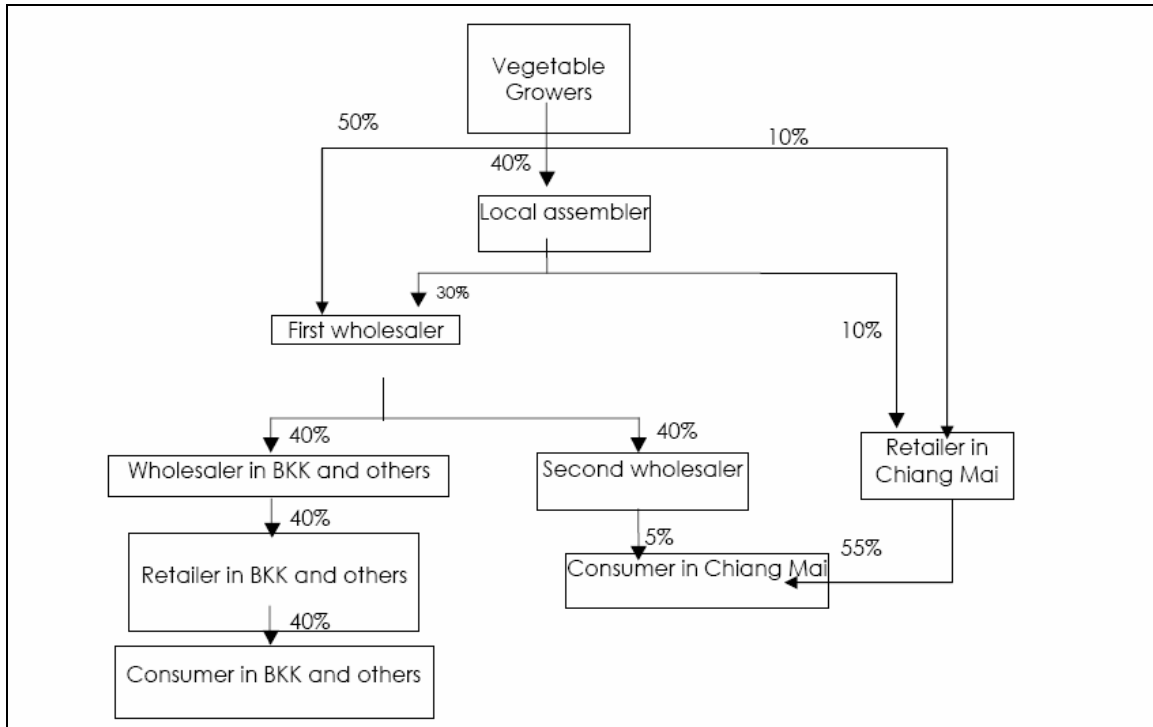


Figure 5.1: The Marketing Channels for Vegetables in Muang Mai Market

Source: Wiboonponse and Sriboonchitta, 2004

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

5.2 Management and ownership of FPM's

Generally, the wholesalers specialise in the trade of 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 also a method of avoiding competition in the market by focusing on specific clientele and suppliers of the necessary products.

The markets are state owned and market administrators plan to maintain the status of Muang Mai Market as a traditional local market for local people and not to transform it into a modern market with better facilities as this would necessitate a price increase of produce and might reduce demand. However, constructing commercial buildings for big wholesalers and creating an enabling environment to encourage small retailers to enter the market are their future plans. (Wiboonponse and Sriboonchitta, 2004)

5.3 Location of FPM's

The main outlet of the domestic market is Bangkok and this city has three main wholesale markets, which play a vital function in relation to both the domestic and export markets. Muang Mai is presently the only wholesale market for vegetables and fruits in Chiang Mai and although the produce comes mainly from Chiang Mai and nearby provinces, trucks deliver vegetables to other parts of the country also ship back vegetables and fruits. There are small proportions of vegetables available for retailing at this market (Wiboonponse and Sriboonchitta, 2004)

5.4 Infrastructure

The traditional market system is characterised by poor infrastructure and investments are being made in infrastructure and packing stores to accommodate both producers and consumers, in both local and export markets (NAMC, 2002).

5.5 Legislative framework

The present government policies on "Food Safety" and "World Kitchen", have led to several large official projects involved in the promotion of sustainable agriculture. Danish government also provides some support towards sustainable agriculture, which includes hygienic and integrated pest management products. In 2004, the Prime Minister issued a so-called "Prime Minister's Direct Mission", to all districts, to promote hygienic agricultural products and as a result of this initiative, agricultural district officers are rushing to form farmers' groups to carry out the mentioned program. (Wiboonponse and Sriboonchitta, 2004)

5.6 Price formation and discovery

Theoretically, price is determined by demand and supply but in practice, traders offer farmers a buying price and in Muang Mai, buyers and sellers, determine market prices through negotiation. It has been found that wholesalers, or traders, 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 and in Muang Mai market, the wholesalers try to set the same price levels, or small differences and retain their customers through different value adding services. (NAMC, 2002).

5.7 Value adding

The government has developed a “one stop” service policy, which makes use of one central market, whereby handling; grading, packaging and quality control are done. This is despite the fragmentation of the industry and encourages a system that retains freshness of produce. However, growers are increasingly emphasising high-value lines with added value to the product and innovative packaging and mixes and performing these value-adding processes for themselves (NAMC, 2002).

5.8 Food safety and traceability

In the Thai government’s policy on food safety 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 “30 Labels” brand 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. However, it is commonly believed that vegetables from wholesale markets are not up to safety standards. (Wiboonponse and Sriboonchitta, 2004)

If producers wish to supply to supermarkets they are required to join certification. In which case, small producers have to change established production practices. For supplying to certain stores, producers are required to grow to precise quality standards and implement specific production practices. Carrefour was introduced to Thailand only in the last few years and has launched its world wide accepted “Quality Cycle” program in Thailand. These and other programs is in response to the Thai consumption trend for healthy products (Wiboonponse and Sriboonchitta, 2004)

5.9 Market Access

Only professional suppliers of small to medium scale operations can hold their place in the modern chain system as small producers find it difficult to maintain business links as a result of their irregular supply. 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. There is a general lack of marketing information about the rapidly changing product quantities and this may act as a type of entry barrier for newcomers in the market and it is therefore important for wholesalers to have experience in their business (Wiboonponse and Sriboonchitta, 2004)

5.10 Risk management

Thailand, like many other countries in South East Asia exhibits a high degree of religion and therefore has no formal risk management strategies.

5.11 Logistics and distribution

Domestic consumption of fresh produce has increased over the past twenty years due to economic growth and the urbanisation process. In the last five years, production methods and distribution have improved due to better road conditions (NAMC,2002).

5.12 Market shares

Similar to the case in Vietnam, 80% of fresh food purchases in Thai cities are made in traditional “wet markets”. The wholesale markets serve the local markets, caterers, retailers and supermarkets. A fragmented marketing system co-exists with the wholesale markets. This informal traditional system accounts for most of the market share (Cadilhon, 2003).

Eastern Europe

6 Poland

6.1 Prevailing marketing system

The central government plays a key role in the fruit and vegetable wholesale markets. The Ministry of Agriculture and Food Economy is the main coordinator of the local initiatives and the wholesale market construction program. The Ministry formed a joint stock company named Warszawski Rolno-Spozywczy Rynek Hurtowy S.A. (the Warsaw Agricultural Wholesale Market Company – WAWMC).

Market infrastructure has been significantly improved with modern facilities constructed and operational in the larger cities of Warsaw, Poznan and Gdynia. The facilities meet all the standards of a modern wholesale markets including sanitary, veterinary and urban planning conditions. The majority of the space is leased out. In the capital Warsaw, the basic traditional wholesale areas where the illegal flower and vegetable and fruit market trading took place were bought out by the WAWMC.

The wholesaling sector consists of both growers and export traders who are vertically integrated to take over the wholesaling functions. There still is a significant amount of mistrust of middlemen.

An estimated 4,500 to 14,000 cars enter the wholesale market in Poznań daily. The number depends on the season and the working day. The wholesale market is open 24 hours a day for the buyers and the sellers but the trade traditionally takes place in the early hours of the morning usually between 2:00 a.m. to 8:00 a.m. There are slightly more visitors between 18:00 to 20:00 when the retail shops are closed down.

The market is comparable to similar premises in other European countries in terms of modernity and technological solutions. It is a regular supply centre for approx. 9.000 companies of Central, Western and North Poland. Annual turnover of the market totals approximately 250.000 to 350.000 tons. The market is located in Poznań near Katowicka Route and Poznań-Franowo railway junction. Within the 12 hectares there are 12 trading premises of a total area of 4 hectares. They include: 2 fruit and vegetable market halls, 4 food halls, 2 flower halls, warehouse and cooling room, garden equipment room and 2 carparks. The biggest problem is the lack of land to be developed and the possibility to build new premises. It refers mainly to the professional fish and meat market hall.

Wholesale market in Gdańsk

The wholesale market in Gdańsk similarly to wholesale market in Warsaw was established within the Ministry of Agriculture and Food Economy (MRiGŻ) program of the wholesale market construction program. Before the decision to build the wholesale market was taken, there had been a thorough analysis related to the location; 56-hectare plot of land. The location of the wholesale market met all the requirements resulting from the logistic schedule.

Poland offers a wide range of natural, well-flavoured fruit and vegetables, which can be suitable for the fresh and processed markets. Marketing professionalism continues to be introduced into Polish companies, and there is still scope for improvement in promotional techniques and the management of business-to-business relationships (Eastagri Cei Network, 2006).

6.2 Management and ownership of FPM's

Trading objectives of fresh produce companies have changed over the last few years. Marketing and exporting of fresh products is no longer to obtain revenue for the nation or hard currency for the whole economy. It is now becoming focused on meeting customer needs and make profits for the companies. Target markets are being selected and some marketing research is being done in-house or by commissioning marketing research agencies. Marketing departments are also being formed. Attention is increasingly paid towards optimising the profitability of the product mix and brand names are becoming valuable.

Economic transformations, which have been taking place in Poland since 1989 have changed the centralized economy that existed into a market-oriented economy. Similar transformations also took place in agricultural production, marketing and retail trade. Previously agriculture produce purchase and distribution was substantially based on state-owned companies but these have ceased to operate. The ownership structures have evolved since Poland adopted market-oriented policies. For example the shareholder structure of *Warszawski Rolno-Spożywczy Rynek Hurtowy S.A.* is as follows:

Table 6.1: Example of market ownership structure in Poland

Organisation	Percentage shareholding
Financial institutions	5.6%
State Treasury	59.3%
Market Operators	22.5%
<i>Gmina (municipality) Ożarów Mazowiecki</i>	0.1%
Agency for Restructuring and Modernization of Agriculture	12.5%

Source: <http://www.eastagri.org/meetings/index.asp?id=24>

6.3 Location of FPM's

One of the new markets is managed by WAWMC is located on the main road from Warsaw to Poznan. It covers an area of 62 hectares, contributed by the Polish Agricultural Property Agency of the State Treasury, the market will have room for various halls allowing for year-round trading, parking, offices and banking facilities as well as space to expand. The market offers about 2,000 individual units of varying sizes for the producers and distributors.

6.4 Infrastructure

When WAWMC was established, the main shareholders of the company included governmental agencies subject to the Ministry of Agriculture, the Warsaw Governor and a small group of private shareholders. The company was successful in raising private sector capital from more than 280 future operators and banks. In October 1996 the first shares were issued for the future operators on the wholesale market. As a result it was possible to take investment loans for the future construction. The market was opened in May 1999 (EBRD, 1996)

Financial resources were also obtained in the form of foreign subsidies (grants) and credit lines from financial institutions (World Bank, EBRD), as well as the Swiss government in amount of 10 million Swiss francs as a grant were developed. Valuable technical support and consultancy were obtained from the European Union's PHARE programme and from the "France-Pologne" Foundation and Swiss experts for the construction of a modern wholesale market that fulfilled all the European market standards in Poznań (EBRD, 1996).

6.5 Legislative framework

The relationships between participants of agribusiness sectors play a significant role in the functioning of the food supply chain as a whole, the quality of final products and the consumer satisfaction level. Since the entry of Poland into the European Union, wholesale markets have to meet EU standards of health. The premises must meet the basic regulations related to e.g. sanitary, veterinary and phyto-sanitary urban planning and other local authority requirements. Local and governmental authorities and entities are responsible for observance of the regulations regarding the operation of wholesale market premises.

6.6 Price formation and Price Discovery on FPM

Prior to the formation of the wholesale markets, most fresh produce retailers in Warsaw purchased their supplies at unofficial markets outside the city or directly from producers, resulting in price distortions, irregular supply and at times inconsistent quality levels. The modern wholesale market infrastructure benefits consumers, producers and traders with improved physical handling and hygiene, competitive pricing and a reduction in entry costs.

6.7 Value Addition

Processing was previously under state control and processing plants serviced both the domestic and export markets. Value addition consists of the following (Faesel U and Hill R, 1995):

- Processing into canned fruits, vegetables, jams, alcohol, etc.;
- semi-processing, which includes musts, concentrated juices which are not in refined form, pulp, etc.;
- Fruit and vegetable drying;
- Freezing, for fruit and vegetable which will undergo further industrial processing where the individual fruit cannot be identified, e.g. as a component in yoghurts, etc.;
- precooling, for fresh produce which will undergo further industrial processing where the individual fruits and vegetables are the major component, e.g. canned fruit, jams, etc.
- Various other preservation services to retain the freshness of the fresh produce

6.8 Food Safety and Traceability

Since accession of Poland to European Union (EU) in 2004, vegetables and fruit produced in Poland and intended for fresh market supply or for export, have to meet the EU quality requirements and food safety legislation. Official quality control systems have been set up for vegetables and fruit in Poland. The system is based on the principle of product quality assurance at all stages of production in the supply chain– from producer to consumer.

Producers are responsible for product quality and safety. The Main Inspectorate for Agricultural and Food Quality Inspection - as well as other state control institutions in Poland – control the quality assurance process and are responsible for protection of consumer. Fresh vegetables and fruits produced for consumers in Poland have to meet the quality parameters according to requirements given in European Council Regulation Nr 2200/96.

Wholesale and distribution centres generally have a higher commercial quality of horticultural products compared to retail and supermarkets. Product quality starts during the vegetable production process and continues in the supply chain by developing and implementing food safety and quality standards for example as EUREPGAP (Good Agriculture Practices), International Food Standard (IFS), British Retail Consortium (BRC), Good Hygienic Practice (GHP) and others. Since 2004 the 'Qualiman' project has been developed in Poland and it aims to contribute to uniform quality management in onion and apples production chains (Eastagri Cei Network, 2006).

According to nationwide examinations conducted in 2005 by state inspection bodies in wholesales, supermarkets and retail, about 31-39 % of total vegetables volume and 24-25 % of total fruit volume did not meet the commercial quality requirements.

6.9 Market Access

Previous communist block countries still have small farmers but there are no markets worth mentioning and food distribution, markets and many other concepts are still relatively new to them. Many markets have been built or buildings turned into markets in the former Communist Countries with the help from the European Union but they are struggling. The lack of infrastructure, management skills, finance and basic understanding of concepts like ownership, profit and such is creating many problems.

A large percentage of produce coming from the smaller producers are of poor quality and due to poor roads and infrastructure has deteriorated to such an extent that it must be discarded. Fruit and vegetables imported from other countries, mainly dealers and markets in Europe, are too expensive and out of the reach of most people. Developing these markets are an ongoing struggle as is the case with many other projects.

6.10 Risk management

Farmers still face numerous risks in transactions. These include late payment; price variability and stringent quality requirements characterize the producer-buyer relationships. There is need for the development reliable institutions, which reduce transaction costs, and enforce contracts to reduce the risk exposure of farmers and traders (Eastagri Cei Network, 2006).

6.11 Logistics and Distribution

Two significant problems facing the Polish industry are the lack of up-to-date sophisticated transport and international communication systems. Whether the export produce is fresh or processed, further improvement is required in terms of quality, packaging and logistics. Some large export companies are overcoming the logistics problem by setting up their own transport companies (Faesel U and Hill R, 1995).

The Warsaw region is the main production area for horticultural produce, accounting for 10 per cent of total vegetable production and over 30 per cent of fruit production. As the largest city in Poland, Warsaw is also an important consumer of imported fresh produce.

Surveys conducted among fruit producers, processors, distributors and consumers indicated that the main factors leading to delay problems that influence the conduct and performance of the Polish fruit market include: significant fragmentation of production, weak position of farmers in setting transaction terms and low level of horizontal and vertical integration. Such issues as delayed payments, price instability and changing quality requirements characterize the producer-buyer relationships (Eastagri Cei Network, 2006).

The lack of efficient and reliable institutions (“rules of the game”), which facilitate the organization of transactions in modern market economies, results in a high level of losses, contract risks and opportunistic behaviour of “stronger” chain participants. The identification of hold-up problems in the fruit chain is also an important stage of market analysis aimed at adjusting supply to demand and at increasing the consumption level.

Western Europe

This section reports on wholesale markets in Western Europe with reference to the British, French and Spanish markets

7 United Kingdom

Europe (including the UK) has several kinds of markets including Wholesale markets, Markets of origin/distribution and street/flea/retail markets. These are reviewed in the subsequent text.

7.1 Prevailing marketing system

There are two main types of wholesale markets in Europe. The first are assembly wholesale markets located in the production areas to collect produce from producers and gather them in bulk. Urban terminal wholesale markets on the other hand, de-bulk large shipments of products to sell to other intermediaries who then retail to or prepare food for the general public (Cadilhon *et. al*, 2003).

Densley & Sanchez-Monjo (1999: 42-43) highlighted three types of wholesalers in Europe according to their relation to the goods they handle. Merchants handle products under their ownership or have a disposal right over the products. Brokers and commission agents may also handle products in bulk as merchants do, but both are defined as intermediaries who do not own the goods, which removes a fundamental aspect of the transaction, namely: risk. Furthermore, while commission agents actually handle the goods traded, brokers can sell products without even seeing them.

Unlike the situation in RSA, traders on British fresh produce wholesale markets are all wholesalers. The commission agent system currently used in RSA (adopted from similar European systems in the 1900s) stopped operating on their largest market (New Covent Market) in the early 1960s. Wholesalers' operations include procuring (taking possession of) produce, placing them on their stands in the market and reselling for a profit. This stock of produce is acquired from a wide range of sources including direct orders, through agents, brokers, and importers. The produce is mainly composed of vegetable imports from Holland & Belgium and fruits from USA, Australia, South Africa and South America.

On the whole, the sales system is straightforward. The main challenges faced there are in collecting money from debtors and procuring produce. Given that most produce is imported, this can easily lead to cash flow problems. Services & systems associated with wholesaling are considered a more problematic than the trade itself. Besides the high rentals paid wholesalers also pay a variety of other charges that can include fees for frontage, cleaning, administration and security. A list of most wholesales produce can be obtained from the National Association of British Market Authorities (NABMA) website <http://www.nabma.com/members.php>

There is also a proliferation of street/retail markets all over the UK and in Europe. Rome, for instance, has over 80 of these markets, Paris 65 and London about 40. Some of these markets open only once a week; some only on weekends but there are a number of permanent markets.

Petty Coat Lane and Portobello Road are examples. These markets sell a wide variety of products including fresh produce and have become big tourist attractions. An NABMA (2005) study found that there were over 1,150 retail markets in the UK, operating on about 112,500 of 150,000 stalls available each week, employing more than 96,000 people, serving over 435 million shoppers and generating an annual turnover of £125 million. The report noted however that this type of market was on the decline.

The overall value chain for European and particularly British fresh produce can be summarised in the flow diagram (figure 7.1) in the following page. Readers will note that the links between the players were omitted in favour of depicting a general flow from left (production) to right (consumption) because the actual flow is dynamic and responsive to changing seasonal prevailing prices and deals struck at that point in time. There are however some definite direct links such as between corporate buying centres and the outlets and also that no consumers can purchase domestic needs at the markets of origin.

7.2 Management & ownership of FPMs

South Africa adopted the British markets system in the early 1900s thus there are many similarities with regard to management and ownership in the UK. All wholesale markets in the UK and many parts of Europe began as a municipal institutions and majority have remained as such. There are however a number of ownership models and combinations. For instance most of the local authorities maintain ownership of the buildings and the market management is appointed by them and on their payroll. Almost all services on the markets are outsourced and most of the markets' management only consists of four to ten persons.

The ownership of markets varies but in all the cases the owners of the land, buildings and the management remains in the hands of the local authority. A few small private markets have appeared on the scene in the last few years but not much is known about them. Almost all of the markets have private shareholders. Some markets have restricted shareholder to wholesalers on the market but other markets have sold shares to the general public. In most cases the market owners retain the majority/controlling shareholding.

7.3 Location of fresh produce markets

The shifts in location of markets in Europe and the UK followed one similar to that of South African markets. They were originally located in city or town centres but had to move to the outskirts in the industrial areas. The markets caused traffic congestion, outgrew facilities and became unmanageable (FAO n.d; and Rademeyer, 2006). The location of the markets in Europe however is not cause for much concern because they can be accessed through the region's excellent road networks. Concerns have been raised though over the imposition of tolls on some of these routes (FAO n.d). Most of the old premises in the centre of the city were sold and the funds used to offset the cost of the new building but many of them were turned into shopping malls or retail food markets.

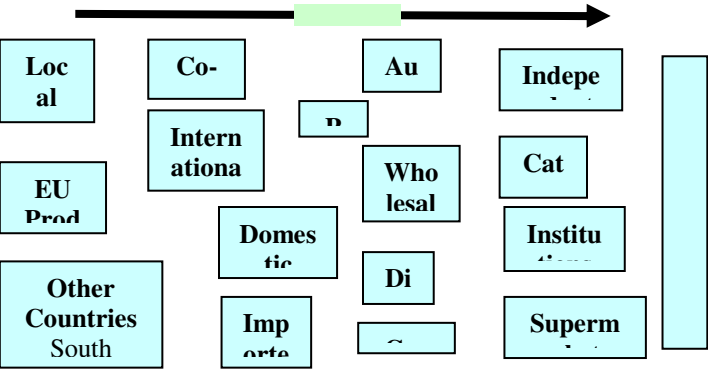


Figure 7.1: Schematic of Eastern European Fresh Produce Flows

7.4 Infrastructure

Markets in the UK and Europe are not seen as “investment opportunities”. A number of years ago a large state funded investigation into markets was done in the UK, very similar to the one done in the RSA by the HSRC. However in both cases the results were never made public.

The national and local governments heavily subsidize many of the bigger markets in the UK and the continent and in all cases the maintenance of the market and provision of infrastructure remains the responsibility of the market owners. Some of the funds for this maintenance are sourced from the fees and levies charged on stall tenants.

7.5 Legislative framework in terms of which FPM's operate

There are not many legal rules at national and regional level to regulate wholesale market *operations*, except with regards food hygiene and product classification. Increasingly, these aspects are regulated by unified rules applicable to the entire European Union (FAO n.d.). These are however a host of Charters, Acts and Decrees were used to initially build and establish the various wholesale markets and some also restricted the establishment of rival markets (see Saphir, 2002b for a literature review)

The laws and regulations under which markets operate are basic and contained in the Local By-laws of the Local authority. More specific conditions and rules regarding trading and occupation are typically contained in the lease agreements used to secure trading space. However, because the markets sell perishable products they must comply with the health regulations as determined by the state, local authority and the European Union.

7.6 Price formation and price discovery on FPM's

The auction system is the primary pricing system for fresh produce both at the assembly and terminal markets. However prices for vegetables and flowers bought in Holland and Belgium are arrived at using the *Dutch auction* system (starting from a high price going down). The wholesalers are usually then bound to an acceptable mark-up the auction prices are publicly known.

The wholesalers can register with these auction markets and can purchase the products themselves with an on-line computer system and arrange transport with a transport broker. The prices of the products emanating from these markets are fairly stable and predictable. Minimum prices are set and guaranteed to producers and if the produce or flowers are not sold, they are simply disposed off (Rademeyer 2006).

Very few producers deal on a one to one basis with wholesalers on the market and they sell to distributors and brokers at predetermined prices or on the futures market. By the time the wholesalers purchase the product the price is virtually set and leaves little room for negotiation and only marginal discounts for quantities. The wholesalers therefore never deal with the producers

directly. There is therefore very little price fluctuation in addition; effective cold storage is used to “stretch” seasons and to further stabilizing prices.

7.7 Value adding

Value adding on markets by wholesalers is basically limited to prepacking or packing in the customer’s customized containers. The bigger markets have other traders and even food processors on the premises. They prepare “kitchen ready” produce and supply mainly restaurants and hotels.

The produce is peeled, diced or mashed and packed in bulk or small containers and supplied fresh on a daily basis to their clients. On flower markets bouquets are made and sold and any other conceivable flower product. Dealers selling packaging material and other products used in packaging and distribution are typically also resident in the market (Rademeyer 2006).

7.8 Food safety and traceability

Food safety on markets has become a major issue and also a bone of contention. The food safety regulations and standards are determined by the EU in Brussels and in the opinion of many market owners and wholesalers far too stringent. A number of markets that had meat, fish and poultry sections had to close them down because it would have been too costly to comply with the requirements.

Regulations on packaging materials were promulgated and had a huge impact on waste disposal at markets and producers had to make very costly changes to their containers. Many of the owners and traders are very unhappy about these regulations and are constantly fighting the “bureaucrats in a big glass building in Brussels”. The local authorities also have extensive health regulations and most markets have a resident health inspector placed there by the health department.

Markets are however settling down and some of the regulations were relaxed a little.

Traceability is a new concept and something that actually started with the supermarkets and finding its way to the markets. There is little information about this and markets are reluctant to pass it on.

7.9 Market Access

This is not an issue on any of the UK and European market because not even the big producers deal directly with wholesalers on the markets, let alone small producers. There are also very few small producers left in these markets thus this is therefore of minor concern (Rademeyer 2006).

7.10 Risk Management

When a business' principal product is perishable the risk factor is consequently much higher. Because the traders on markets in Europe do not sell on a consignment and commission basis they carry the entire risk. As a result the bulk of their sales take place on an order basis and they carry very little surplus stock. They do not have a fidelity fund or any other fund but can purchase insurance. The premiums are so prohibitively high that they prefer to manage the risk themselves. Risk management therefore simply comes down to good sound management of their business.

7.11 Logistics and distribution of fresh produce

The markets throughout Europe and the UK are modern functional buildings specially designed for the purpose of handling fresh produce. As stated earlier their development path was very much the same as in SA and when they moved from the centre of the cities they built excellent markets. The road access to and from the markets is excellent and adequate facilities exist for large vehicles and smaller ones of the buyers. Most of the services of the markets are outsourced and, because of the competition, the logistical support and services at markets are generally of a high standard.

The distribution of fresh produce throughout the continent and UK is fast and efficient and in most cases undertaken by specialist transport companies and transport brokers. Many of them operating only from certain markets or on certain routes and have their offices on the markets, harbours and airports.

Obviously, with the growth in on-line business distribution has become even more efficient. Logistics and distribution is therefore not a major problem in the marketing of fresh produce.

7.12 Market share vis-à-vis other marketing channels

As with the retail markets, wholesale markets in the UK appear to be on the decline as a result of the increasing growth of supermarket chains. For instance in 1998 one third (about 33%) of New Covent Garden Market lay empty. According to Dr. Mike Liggans - former General Manager of Covent Garden Market Authority (CGMA) - the market was doing so badly it could close within the next decade (Rademeyer, 2006).

As a result of this trend many of the markets in the UK spend a bare minimum on maintenance and infrastructure thus leading to some dilapidation. On the whole FPM's in the UK and other northern European countries are under major threat from supermarkets, and specialist retailers and are likely to be decimated in the same way as in the USA (Rademeyer, 2006). This is much less so in southern Europe where a culture of wholesale & retail markets persists (Saphir 2002a in Cadilhon *et. al*, 2003).

As a result of the independence of European wholesalers and the lack of a centralised market information system (unlike the South African situation), reliable data on the actual quantities flowing through the markets and thus the relative market shares is not available (Rademeyer, 2006) In general however the United Kingdom is dominated by supermarkets; French city dwellers prefer

to shop for fresh produce at retail market stalls while supermarkets are beginning to take over the rural food markets; in Italy multinational supermarket chains (that bypass wholesale markets) are starting to dominate in some areas but local supermarkets are still competitive and they procure fresh produce from traditional wholesale markets (Cadilhon *et. al* 2003)..

8 Spain

8.1 Prevailing marketing system

In many countries, the traditional central wholesale market is still considered as an integral element of the food distribution network and quality of life, and in countries such as Spain they have been expanded to become terminal wholesale markets, leading to the development of *Unidades Alimentarias* (UA). In recent years, central markets have been established in which wholesale marketing of fruits and vegetables, together with associated prepackaging, assembly and other food distribution activities, are concentrated in one complex. Some food supply centres have related warehouse-distribution facilities for other goods for supermarkets and major retail chains (FAO, n.d.). Supermarkets and chain stores do not play such an important role in food distribution, marketing and sales in Spain.

8.2 Management and ownership of FPM

In Spain, the wholesale market institution is viewed as a public good. Ownership of the market belongs to state funded corporate organization called the Empresa Nacional Mercados Centrales de Abastecimientos S.A. (MERCASA). The Ministry of Trade set up the latter in 1966, with the specific purpose of creating a modern network of wholesale facilities to replace the old central markets in each major city. These markets are modern and have excellent facilities and are extremely well managed. The State has majority stake in its management structure because MERCASA appoints all the market staff and oversees the running of the markets from their headquarters in Madrid and the Minister of Agriculture appoints the directors and CEO of MERCASA (Cadilhon et al 2003).

The agreements between MERCASA and each of the municipalities responsible for markets allow for the formation of a company, which incorporates MERCASA with the relevant municipal authority and the professional organizations in the sector that wishes to be included with appropriate contributions in cash or kind. Generally, share subscription rates tend to be the following: the municipality holds 51 percent and a maximum of 49 percent or a minimum of 26 percent is held by MERCASA while the remainder is held by the professional bodies. The company is a mixed enterprise, generally in the form of a limited company subject to both public and private law.

The agreement also facilitates the formation of a syndicate, also in the form of a limited company, whose shareholders, in addition to MERCASA, are the producer, trade and consumer associations and organizations, with the common purpose of promoting and building the new markets. This option tended to be used in cases where, for whatever reason, municipalities chose to join the venture in the start-up phase of the market projects, sometimes for obvious financial reasons. Shortly before start-up, the company statutes are adapted to the local legislation. The municipal authorities maintain control by appointing a management company. Decisions on leases, market value, fees and charges are made by the municipality on the recommendation of the management company (FAO, n.d.).

The whole complex is usually managed as a single unit. Because of the high investments involved, most of these facilities have been built by a municipality, provincial or national government, or often a combination of all three (FAO, n.d.).

8.3 Location of FPM's

In Spain, since its establishment by the government in the 1960s, the MERCASA enterprise has created a network of 22 modern wholesale markets, some of which have expanded to become terminal wholesale markets (Cadilhon et al 2003). These large food supply complexes are located on the outskirts of key cities, combining a fruit and vegetable wholesale market with facilities for other foods and flowers (FAO, n.d.).

8.4 Infrastructure

The managing authority is able to recover the construction costs, in Spain, through the payment of lease fees and a monthly rent that wholesalers pay to cover their share of the operational expenses of the market. In most markets, a tenancy agreement includes lease, sometimes known as licenses in some markets, for rental of wholesaler trading space are incorporated in a lease or. This stipulates the period of the agreement, lease or license to occupy space. In Barcelona the term is 49.5 years (6 months before the end of the administrative concession granted by the Municipality of Barcelona to the company Mercabarna S.A.) (FAO, n.d.).

In Barcelona, the Mercabarna company reserves the right to evaluate the transfer of licenses as a means of retrieving the initial investment costs, requiring that this be paid by the original license holder. In this case, if the management company establishes that the amount advised for the license transfer does not correspond to the amount actually paid, it has the right to withdraw and cancel the license (FAO, n.d.).

Now, twenty years after the first food centres were started, the vast majority of markets tend to charge fees based on the size or area occupied. Many markets have, by agreement with traders or tenants associations, a maximum annual adjustment in fees, which is based on an independent official indicator, such as the consumer price index or cost of living index. In Spain nearly all markets apply these criteria, by agreement with market operators' organizations. Some markets have fixed rentals for a specified period of years (FAO, n.d.).

8.5 Legislative framework

It is important that no part of the market rules or any administrative decision or any agreement be contrary to or not provided for by the enabling legislation. Additionally, all rules must be in accordance with other laws, especially commercial law.

In Spain, laws provide that markets and slaughterhouses are of the public domain and dedicated to public use and services. This can mean that no charge or authorization is required to enter the market. (FAO, n.d.)

8.6 Price formation and discovery

Assembly markets in rural areas have been traditionally built so as to encourage the delivery of fair prices to farmers. The products on these markets are generally sold through an auction system, either by raising or decreasing price calls, which is often viewed as the most transparent way of trading on a free market (Walras, 1897 in Cadilhon et al 2003). Farmers, farmers' co-operatives and collectors in major producing areas in Spain still use this mode of trading. Buyers include wholesalers, and supermarkets who can buy in bulk on these markets (Montigaud, 2000). The markets of national interest were also established to favour free competition, transparency of transactions, lower distribution costs and enable the control of product quality and prices (Vernin, 1998).

8.7 Value adding

As markets have changed due to the changing consumer preferences, so too have the methods of product handling and marketing. Mechanized handling, bulk bins, prepackaging and sophisticated credit systems are all part of most modern wholesale markets. They have facilities for processing, grading and packaging, and excellent communication facilities (FAO, n.d.).

8.8 Risk management

In Spain, multiple-peril crop yield insurance is available through a public-private system. Coverage is available for a large number of crops, including fruits and vegetables. Farmers choose the level of coverage and the perils to be covered, including "all-risk" insurance; the government provides premium subsidies and reinsurance, through Entidad Estatal de Seguros Agrarios and the Consorcio de Compensacion de Seguros. An association of insurance companies, Agroseguro, has a large administrative role in the program and pools risks. Public support accounts for around 50 percent of all costs, including administrative costs. Participation by producers in Spain in agricultural insurance is high relative to many other European countries (Mitchell, 1992).

8.9 Logistics and distribution

The Spanish distribution is characterised by a large number of retailers and traditional markets. However, distribution in Spain is changing mainly because of the development of new modes of distribution developed to meet the consumer's demands for products of a good value.

In 1998, the road transportation of goods totally opened to competition both internally and internationally and currently, the transportation of goods by road constitute 80 % of the total inland transport. However, due to the openness of the sector, this sector suffers serious difficulties of marketing due to an excessive number of players. The intracommunity business represents more than 90 % of the international exchanges on the Spanish roads (FITA, 2005).

8.10 Market shares

Spain exhibits a high availability of vegetables. Fresh produce sales to the general public by independent retailers in Spain have stayed strong up to the present (see Figure 8.1). Supermarket

sales in Spain were only around 30 percent on average, but higher for imported produce and lower for local produce.

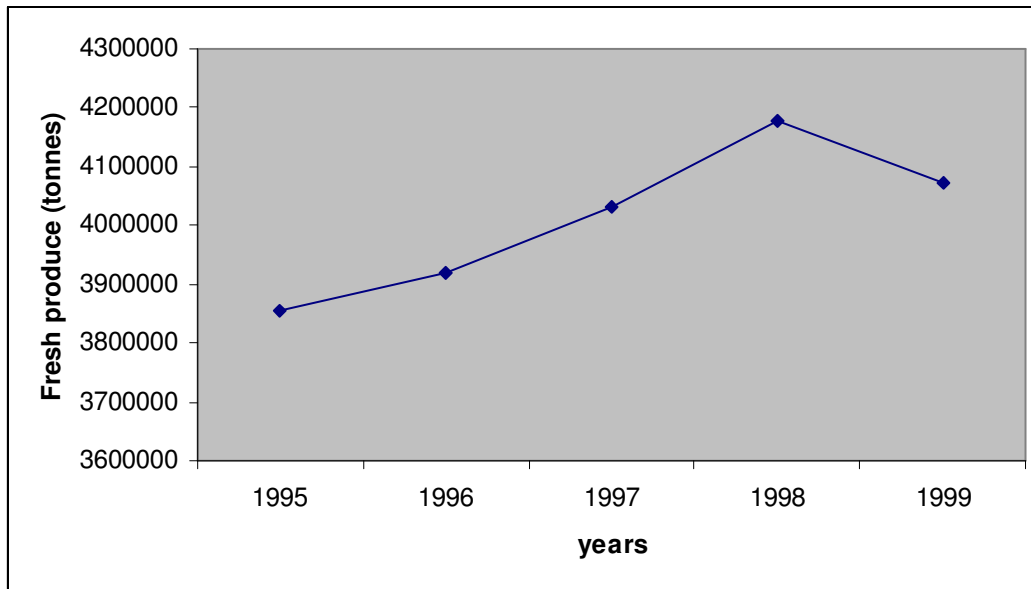


Figure 8.1: Fresh Produce Sale by Independent Retailers (Spain, 1995-1999)

In Spain, the network of 22 wholesale markets, set up by MERCASA, sell mainly fresh produce. However, it should be noted that some markets in the network also trade fish, flowers and meat. These markets cover a total of over 700 ha of land area, of which 100 ha is wholesale trading space. Around 3,600 companies including 2,600 wholesale firms work in this network and more than 16 million vehicles per year visit the markets, which is equivalent to around 44,000 cars per day. MERCASA estimates that 65% of the fruits and vegetables that are consumed in Spain are channelled through the wholesale markets, and 55% of fish and seafood. The figures rise to 85% and 95%, respectively, when considering consumption in the major urban areas nearest each terminal wholesale market in the network (Cadilhon et al 2003)

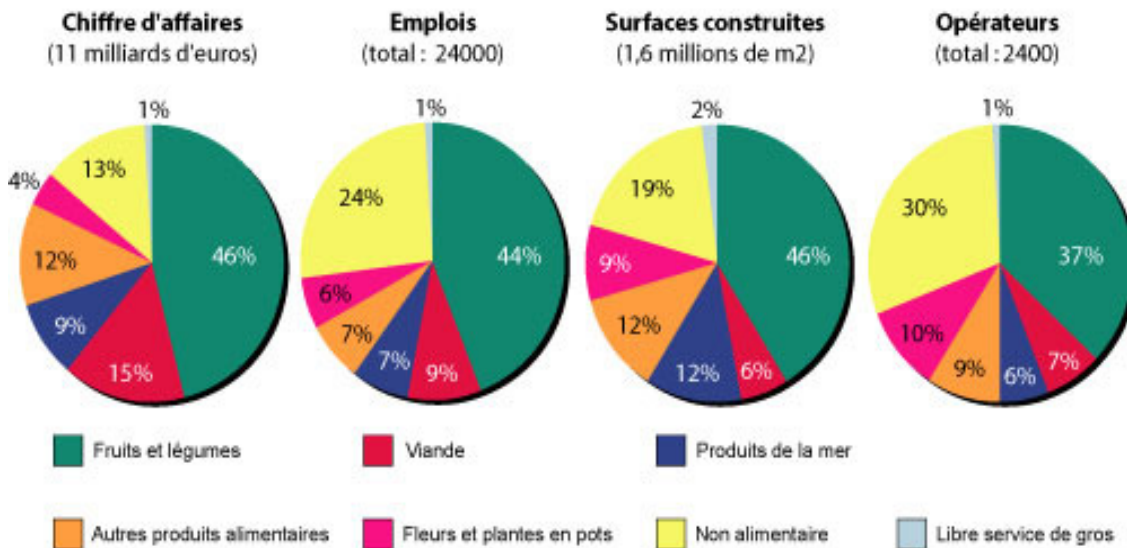
9 France

9.1 Prevailing marketing system

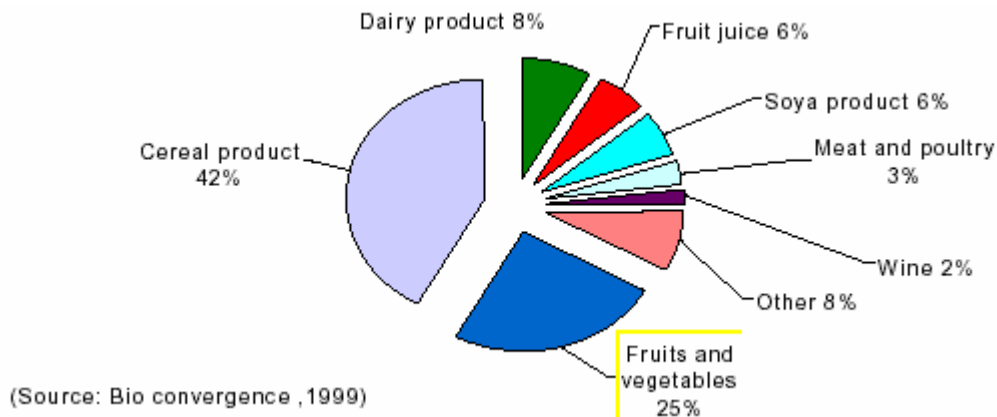
A network of 18 French Wholesale Markets named the French Federation of Wholesale Market was established in order to simplify distribution circuits and make supplying towns with food products more secure. The Markets quickly became both food-processing industry poles and logistic platforms in the service of food distribution.

A quick review of statistics off the French Wholesale Market Network in 2002 shows that there are:

- 550 hectares of developed and active market space
- 1,6 million square metres of completed construction
- 2400 full-time operators
- 4500 producers
- 5 millions metric tons of food produce every year
- 24000 regular jobs
- 50000 buyers
- 50000 vehicles per day
- 11 billion Euros of sales
- 40 million Euros of investment



Source: Fédération Française des Marchés d'Intérêt National (2006)



The Rungis Market in a few key figures is as follows:

The surface area of the market is 232 hectares with more than 727,000 m² under cover, including 470,000 m² of buildings used for commercial purposes.

For the Paris region alone Rungis Market represents:

- 50% of sea and river produce
- 45% of fruits and vegetables
- 35% of meat produce
- 50% of cut flowers and potted plants

The Market achieved sales of 7,132 million Euros (in 2002). Of this 1,500,000 metric tons was incoming food produce. There were 32 million bunches of cut flowers and 19.4 million units of potted plants.

Rungis Market has achieved outstanding marketability due to its five activity sectors that match the physical market. These are fruits and vegetables, meat produce, sea and river produce, dairy and poultry produce, traiteur produce and other food products, gardening and decoration products. In addition other supplementary activities including the Business Centre and the warehouse zone are available.

A group of 1,363 companies including 465 wholesalers and small parts sellers, 219 brokers and import-export companies, 259 producers-sellers, 420 various service companies that represent overall 12,162 jobs, 7,261 of which are at wholesalers.

As many as 20,400 regular buyers come to Rungis Market from all over Europe. They include retailers, restaurants, wholesalers, import-export companies, GMS and individual consumers. About 12 million of these are from a radius of 150 km around Paris, i.e. one fifth of the French population.

Continuous product quality controls made by State departments (DGCCRF - Directorate-General for Competition, Consumer Affairs and the Repression of Fraud and Veterinary Services) and a customs centre specialised in handling perishable products, for non-member countries. The market

has four entry points, 27 through-roads recording on average through flow of 26,000 vehicles per day, including 3,000 large tank-trucks.

9.2 Management and ownership of FPM

The management company Semmaris, otherwise known as the Rungis Wholesale Market Authority, renewed a 30-year management contract for the 232ha site at the end of 2004. It was established by order in April 1965, to build and run the market and its annexes, and manage the activities there.

It has a registered capital of 4.95 million Euros; the State is its major shareholder. Its capital is distributed as follows:

State:	56.85 %
City of Paris:	16.50 %
Val de Marne department:	7 %
Consignments and loans found:	5,76 %
Professional and other:	13.89 %

Semmaris employs 223 staff; its turnover for 2004 amounted to 72,4 million Euros. (Rungis International, 2006)

9.3 Location of FPM

The Rungis Market is and is conveniently close to major motorways, which include the A6, the A86 motorways, the RN7 as well as the Orly airport, and is 5 minutes from Paris. This makes it a strategically located wholesale market in terms of the logistics solutions necessary for perishable commodities.

9.4 Infrastructure

The markets have modern infrastructures, at the disposition of professionals in competitive economic and technical conditions, which meet the European Union's high standards. The infrastructure is continually adapted to the users' needs and to keep in line with market developments.

Rungis International Market offers wholesalers several prospects for warehouses. Depending on the products for sale, these warehouses are located in the buildings making up one of the following sectors:

- Fruits and vegetables sector
- Meat produce sector (red meats, poultry, pork, tripe produce)
- Gardening and decoration sector (flowers, plants, and accessories)
- Dairy and poultry produce sector
- Traiteur and other food products sector
- Fresh seafood sector

These warehouses may also have a below ground storage room and upper floor office space.

Rungis International Market also provides various office spaces located in buildings and directly accessible from the RN7. Services (banks, post offices, restaurants, etc.), and extensive, free parking areas are found next to the office buildings (Rungis International, 2006)

9.5 Legislative framework

Wholesale markets are organised as a Network of Markets of National Interest (Réseau de Marchés d'Intérêt National, MIN) based on laws passed in 1953, whose objective was to simplify or reduce marketing channels so as to reduce costs and clarify market transactions, while allowing the possibility of improving the quality of products throughout the marketing process (FAO n.d.)

Inspections is carried out by the direction départementale de la concurrence, de la consommation et de la répression des fraudes - D.D.C.C.R.F (Departmental Directorate for Competition, Consumer Affairs and the Prevention of Fraud) at the Rungis Market. As regards safety, the D.D.C.C.R.F. carries out inspections at every level (production, imports, distribution) and in every activity sector.

Based in Créteil, it regularly monitors the operators at the Rungis Market and acts immediately in case of a serious crisis or threat.

9.6 Price formation and discovery

Prices on the Wholesale Markets act as a basis for establishing the market price lists used daily by the professionals. Assembly markets in rural areas have been traditionally built so as to encourage the delivery of fair prices to farmers. The products on these markets are generally sold through an auction system (either by raising or decreasing price calls) which is often viewed as the most transparent way of trading on a free market (Walrus 1897: 3).

9.7 Value adding

One of the first countries to embrace the Fresh Cut technology was France, where it is now well established. This basically involves turning fresh fruit and vegetable products into washed and packed item, and ready to eat or cook. Salad mixes are an obvious example. The technologies involved in producing Fresh-cut items include modified and controlled atmosphere, low temperature pasteurisation and intermediate moisture (osmosis). The emphasis is on freshness, for which cold chain treatment is essential at each stage of the product's movement. No preservatives of any sort are used and this is also emphasized in the marketing of Fresh-cut products.

Various other traditional value addition processes also take place. These include the following: canning, and freezing fresh produce to preserve value and for increased storage life.

9.8 Food safety and traceability

The fresh produce wholesale market demonstrates high standards in terms of food hygiene. The Animal Health and Veterinary Services operate at the Market on a permanent basis and monitor product quality to ensure that it is beyond reproach.

The veterinary services have daily checks of the produce on the companies' premises. This is in addition to the health approvals delivered to the companies working there.

There has been significant investment in the buildings to eliminate any risk of interruption in the cold chain thus ensuring good quality, and safe fresh produce.

The fruit and vegetables pavilion, has different health requirements to those governing animal produce, and has been designed to present the produce under optimal conditions, sheltered from the adverse effects of weather.

Through the health approval delivered by State services, each company undertakes to comply with the following points in particular:

- To make sure that their premises are in proper condition and well maintained. The premises must be in line with the standards that include drawing up a cleaning schedule and purchasing efficient cleaning equipment. For the cutting rooms this means a cleaning-disinfecting protocol with performance control done through analysis of surface samples.
- To comply with the hygiene standards for the cold chain. These include, a temperature recorder in each refrigerated room, temperature monitoring procedure on reception and management of non-conformities, promoting staff awareness through relevant training, thermal insulation, reinforcing cold production, refrigerating platforms used for receiving or shipping animal produce.
- To perform product traceability through manual recording or computer entry of the manufacturer's batch number or DLC (use-by-date), or assignment of a stock management batch number (Crosskey, 2006).

9.9 Market Access

As with other European markets facilitating market access is not an issue. All citizens with the will, means and skills to participate in the agrifood system can do so.

9.10 Risk management

In addition to safety, the D.G.C.C.R.F. also monitors compliance with quality regulations throughout the MIN (deception, falsification, false advertising, quality marks) and competition (distribution networks, agreements and understanding, invoicing, payment terms and conditions, etc.) It checks the quality and labelling of fruits and vegetables in its capacity as the competent national inspection body. This helps to reduce the transaction risk for all stakeholders.

SAMMARIS (Rungis Market management company) also has in place a public competitive bidding process which invites buyers to tender for produce in a transparent manner. Buyers are registered with the company and provide the following documents to obtain a purchasing pass:

1. A “K bis” certificate dated within the last three months
2. The registration certificate for the vehicle entering the Market
3. The identity card for the company manager
4. An authorisation if the buyer is not the company manager

All these requirements serve to minimise the risk of the participants in the Rungis Market.

9.11 Logistics and distribution

The wholesale markets in France have two sources of fresh produce. These are the local farmers and imports. Some farmers also compete with the wholesale markets by marketing their own produce direct to consumers or retail chains. The amount farmers market for themselves can be as much as fifty percent of their output. The primary market operators (PMOs, operators who buy from French producers or foreign suppliers and sell to wholesalers or retailers) market the rest of the produce. A substantial share (estimated at 30 to 35 percent) of the fruit and vegetables produced in France is exported to the United Kingdom, Scandinavia, Germany and Switzerland, where prices are reportedly more remunerative than in the domestic market. Figure 4.1 below summarizes the flows of fresh fruit and vegetables in the French market.

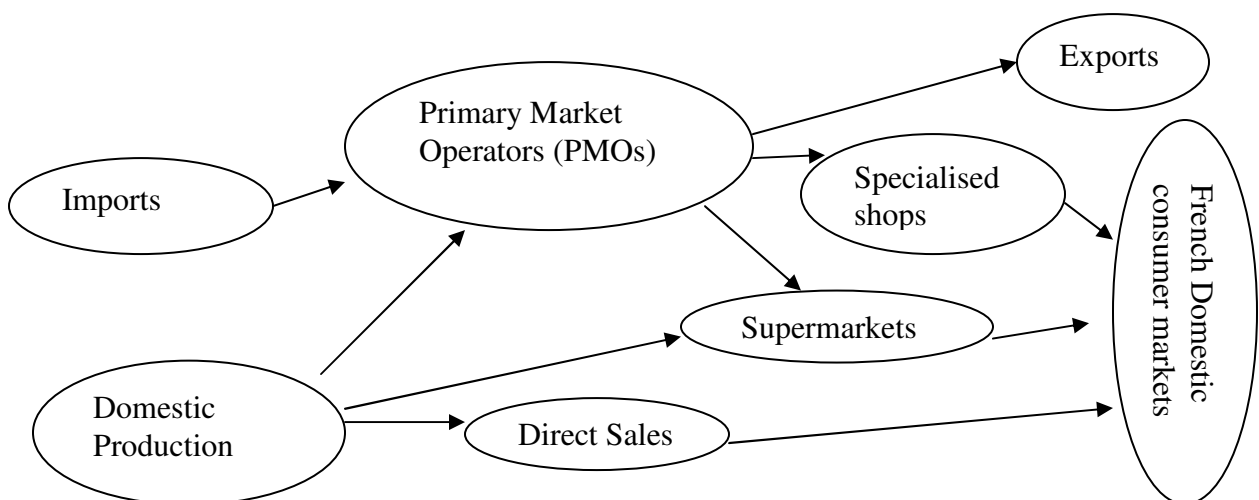


Figure 9.1 Marketing and distribution Channels

9.12 Market shares

In France, the wholesale markets enjoy approximately 30% of the fresh produce market share. Other marketing channels including retail chains enjoy 68% of the fresh food distribution market.

10 Overview & Conclusions

Although the majority ownership of wholesale markets has remained in the public (local government) domain internationally, the management models used vary and the level of influence in the actual operations is on the decline.

The trend in the developing economies of South America and South East Asia show striking similarities to the RSA situation. On the supply side, large producers have an upper hand in accessing market information, production technologies, conforming to product standards and meeting supplying required volumes. Thus they are better able to access markets. This situation is worsening for small farmers as the markets slowly consolidate in favour of privately run supermarkets rather than the public (municipal) markets. The paranoia over food safety does not appear to have set in these markets as it has in the developed world, as consumers are not as willing to pay the required premiums. Thus, similar to the RSA situation, quality and standards vary widely.

The Europeans appear not to have the small producer market access problems but instead rapidly expanding supermarkets threaten the existence of both the wholesalers and retail (street) markets. This trend is a result of the mitigated traditional/cultural approach to procuring fresh produce, especially in southern Europe.

Access to information on the entire market has proven to be a key to a transparent pricing mechanism. This has been established to be easier to achieve where public authorities are still involved in transactions. Prices are ultimately influenced by supply and demand conditions and manifest in auctions where large numbers of buyers & sellers exist and through negotiations particularly at the farm gates between farmers and merchants, farmer organisations and other interested players.

The legislative control of the actual market processes is limited. However many laws have been put in place to ensure food hygiene with varying degrees of rigidity. Legislation has also been used to establish markets, protect them from competition and gather the funds for their regeneration.

From the foregoing it is evident that the trend in fresh produce marketing will be from the traditional wholesale markets towards supermarket chains as is already evident in the UK and South America where supermarket chains have vertically integrated into a complex supply network and are rapidly increasing their market share. South Africa is expected to follow this trend because traditional markets are not considered an integral part of the “food distribution network and quality of life” as is the case in some parts of Europe, and neither does the country have wet markets which form part of the culture and heritage, as is the case in Asia. It is therefore necessary that the government take measures to protect the small farmers from the impending disaster. It should be noted that government needs to work with the private sector to regulate fresh produce marketing.

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